MAKING MEDIAL IMMERSIVE THEATRE: MOBILISING INTERMEDIALITY AND TRANSMEDIA STORYTELLING

by

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DEDICATION

I dedicate this study to my parents, Josef and Marietjie Swanepoel and my husband Stephan Van Niekerk who have continuously supported me through the process of this study. Thank you for all your love, support and encouragement. Thank you for always believing in me and encouraging me to pursue my dreams. Without you, none of my success would be possible. I love you.

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ABSTRACT

This study aims to create a framework for creating a hypothetical medial immersive theatre production that will make use of aspects of intermediality and transmedia storytelling within the confines of the UP VR cylinder and equipment.

Theatre is traditionally viewed as a live medium. Liveness in theatre is seen as a face-to-face engagement in the 'here and now' or in 'real time', with audience and performers together in the same temporal and spatial frame. However, the increasing mediatisation in/of theatre problematises this interpretation. Arguments as to the ways in which new media may produce liveness increasingly surface. Mediality can be interpreted as an abstract theory, as clusters of communicative forms and as a way of approaching media that emphasise the modes and means in which information is communicated (Kattenbelt (2008:21). Modes of mediality, such as transmediality, multimediality and intermediality can function independently, but they can also operate together, as they intersect.

Mediality in the context of immersive theatre raises questions about the nature of immersion and liveness. Research on immersion appears in many academic discourses, but the conceptual and terminological clarity of the term remains dubious. In the context of theatre, immersion relates to an interrelationship between spatial, medial and performance aspects, as well as the presence and participation of the audience. Immersive theatre can thus be seen as an experience that interweaves production, perception and reception in a multi-sensory manner **(**Freitag, Molter, Mücke, Rapp, Schlarb, Sommerlad, Spahr & Zerhoch 2020:n.p.). Immersion in modalities that use new and digital media technologies refers to a sensory experience, or a perception, of being submerged in an environment that is mediated by technology (Vanhoutte & Wynants 2010:47).

In considering the above, this study aims to interrogate how immersion and liveness manifest across the selected media, in order to create a hypothetical framework for

medial, immersive theatre. The study demonstrates that elements of intermediality and transmedia storytelling can hypothetically be used to create a framework for producing a medial immersive theatrical production that may allow audience members to experience different levels of immersion and presence within such a product

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1.1. BACKGROUND AND CONTEXTUALISATION

This study aims to create a framework for creating a hypothetical[1] medial[2], immersive theatre production that will make use of aspects of intermediality[3] and transmedia storytelling[4]. Owing to COVID-19 and the national lockdown, theatre shows and South African arts festivals were cancelled or indefinitely postponed. Certain productions and arts festivals moved online, for example *Free State Festival Snelstroom* (https://www.vrystaatkunstefees.co.za/en/home/link), the National Arts Festival (https://nationalartsfestival.co.za/), and the Woordfees pop-up TV channel on DStv (https://www.dstv.com/en-za/discover/loving-local/woordfees/). Theatres closed - some permanently; for example, the Kalkbay and the Fugard theatres (Charles 2020:1; Abraham 2021:1). The turmoil of 2020 and 2021 underscores the necessity to re-imagine the possible futures of post-COVID-19 theatre productions in South Africa, and to explore the use of varied technologies to expand possibilities for engagement with theatre. Medial immersive theatre may offer one such possibility[5].

Auslander (1999:15) argued more than twenty years ago that audience members were increasingly expecting the use of enhanced technologies and elements of mediality in live performances, though for different reasons than I articulated above. According to

[1] This study will only integrate the theoretical framework to a hypothetical production with hypothetical audience members. Only a short narrative video was made to demonstrate how the medial immersive theatrical production will operate (see narrative video).
[2] In this study, medial will be used as adjective and mediality as noun.
[3] Intermediality, as defined by Werner Wol, is the relation between different media products as well as the relationship among different media types used in theatre (cited in Elleström 2017:2). Intermediality is about identifying the various relations between different media productions, recognising the interaction between the different media forms, and providing a new intermedial foundation for media (Muller 2010:18).
[4] Jenkins (2007:2) defines transmedia storytelling as various content and/or contexts of a fictional narrative that are told on different media platforms. These different content/contexts can be read against each other in order to make sense of the large narrative's phenomenon. Transmedia storytelling makes use of extensions in order to generate narrative on different media platforms, and these extensions can function as a story on its own that provides more insight or depth to the narrative as a whole (Jenkins 2011:1).
[5] Relatively little scholarly research on theatre and COVID-19 exists. Authors include, among others, Maake (2020), Davies (2020), Castro and Zermeno (2020), Fisher (2020), Moore (2020), Johansson (2020) and Motal (2020).

Kattenbelt (2008:21), the change from analog media to new media can be described as mediality[6]. Kattenbelt (2008:21) further states that mediality refers to a way of approaching media that emphasises the modes and means in which information is communicated. Media studies focus on what the text is communicating, whereas mediality focuses on the medium that is communicated in a performance (Bruhn 2016:4). This shift in focus offers a chance to examine the media through which this information is being communicated, by understanding the historical or social conventions that these media may contain (Bruhn 2016:6). Mediality can be interpreted as an abstract theory, as clusters of communicative forms and as a way of approaching media that emphasise the modes and means in which information is communicated (Kattenbelt 2008:21). Kattenbelt (2008:3) further states that mediality is an umbrella term for transmediality[7], multimediality[8] and intermediality. Modes of mediality, such as transmediality, multimediality and intermediality can function independently, but they can also operate together as they intersect (Muller 2010:21).

Research on immersion appears in many academic discourses, but the conceptual and terminological clarity of the term remain dubious. Definitions of immersion are dependent on context, and may range from a metaphor to a state of mind, to an experience or a mode of engagement with apparatus, technologies, others, etc. In the context of theatre, immersion relates to an interrelationship between spatial, medial and performance aspects, as well as the presence and participation of the audience. Immersive theatre can

[6] Analog media refers to the mass media institutions that existed before digital media, mainly print media, film studios, music studios, advertising agencies, radio broadcasting, and television. Analog media institutions are centralized and communicate with one-way technologies to a mass audience (Jenkins 2004:16).
[7] Transmediality refers to “translation” from one medium to another medium. When one medium changes its theoretical discourse in order to transform into a different medium (Kattenbelt 2008:26). These translations are normally between two or more digital media, for example when a film is adapted into a video game(s). As a particular medium transforms into another medium the original medium becomes absent, which leads to specific sources and features becoming lost in the process of transportation (Kattenbelt 2008:22).
[8]Multimediality exists when two or more digital mediums are fused together and create different sign systems (Raessens 2001:52). These sign systems include words, images and sounds. The words can either be written or spoken, the images can either be still or moving and the sound speech, music or soundtracks. Websites and computers are examples of multimediality as different mediums are fused together that create multiple sign systems (Kattenbelt 2008:22). These sign systems are interpreted differently by different people from different demographic backgrounds that formulate different ideologies to certain signs (2008:23).

thus be seen as an experience that interweaves production, perception and reception in a multi-sensory manner **(**Freitag, Molter, Mücke, Rapp, Schlarb, Sommerlad, Spahr & Zerhoch 2020:n.p.). Arguments as to the ways in which new media may produce liveness increasingly surface, as discussed in the chapters to follow. Mediality in the context of immersive theatre, raises questions about the nature of immersion and liveness. Immersion in modalities that use new and digital media technologies, refers to a sensory experience, or a perception of being submerged in an environment that is mediated by technology (Vanhoutte & Wynants 2010:47). Considering the above, this study aims to interrogate how immersion and liveness manifest across the selected media, in order to create a framework for producing a hypothetical medial, immersive theatre production.

Theatre critic Michael Billington asserts that "[i]t would be crazy for theatre not to embrace new technology; the results can be brilliant" (Billington 2012:1). The incorporation of new technologies allows for new forms of theatre experiences. Billington (2012:1) states that if theatre would turn its back on new and digital technologies, it would be the same as if theatre would have rejected electrical controlled lighting in the 1880s when it was first developed (Billington 2012:1). Although Billington's (2012:1) comment could, to some extent, be seen as hyperbolic, it urges theatre makers to continue to incorporate new forms of technology. The use of technology according to Auslander (2008:10), provides theatre-makers with more options to tell stories and new ways in which to present them (2008:10). As technology changes the world at a rapid pace, the use of digital media increases rapidly in theatre and performance (Auslander 2008:10)[9].

As the focus of this study is to create a framework for producing a hypothetical immersive, medial theatrical production. The notion of immersion for the purpose of this study, will be centred on intermediality, transmedia storytelling, theatre and performance (specifically immersive theatre) (see Chapter Five). I will focus on Nilsson, Nordahl and Serafin‘s

[9] Digital media is the use of electronic technology in order to store and process information, therefore, digital media is a combination of technology and information. Technology is used in order to portray the information, for example a film or a radio. The technological devices can also be used in order to store or collect the information for example a phone or computer. Digital media can also be referred to as “new media” that is easily accessible, interactive and current, for example a webpage.

(2016:129) theories of immersion, and identify how elements of these theories are used in immersive theatre to immerse audience members and generate presence. The study will use the above-mentioned to conjecture about an intermedial, immersive performance through incorporating elements of system immersion[10], narrative immersion[11] or challenge-based[12] immersion specifically, and identify how presence is generated among audience members through these modes of immersion. This study proposes that immersion can be used in connection with intermediality, transmediality theatre (this will be discussed in Chapters Two, Three and Four). I use a short narrated video to give some examples of how the hypothetical production could be realised using my framework[13].

1.1.1 Examples of the use of mediality in theatre

The use of digital media is changing the way in which theatre-makers view theatre and the way audience members experience a performance (Marchon 2013:xvii). Advanced technological devices such as cave systems[14], VR headgear and sensor suits are being utilised to create a more computer-simulated environment that immerse audience members in the virtual reality (Rose 2015:4)[15]. Audience members interact with virtual experiences that permit them to be present and open to experiences that form emotional interactions with events (see 3.3), whereas other performances that combine real and

[10] System immersion immerses users as they are surrounded thy technology.
[11] Narrative immersion is generated when users are able to form a relationship with the fictional world or virtual reality and perceive it as the 'real'.
[12] Challenge-based immersion immerses users through allowing them to partake in challenges and overcome obstacles.
[13] Refer to instructions in order to access the narrative video (via WeTransfer).
[14] A cave system is a cave automatic virtual environment that allows users/audience members to be immersed within a virtual environment. A cave system is a virtual reality (VR) room that is surrounded by graphical projectors that projects three-dimensional images/videos onto the left, right, front and back side, floor and at times even the ceiling of the room, to create a virtual environment (Tarbi 2020:1). The images or videos projected within the VR cave system are captured with a three-dimensional cameras. Three-dimensional glasses or VR headsets are provided to users/audience members to project three-dimensional images/videos. Cave systems are used to fully immerse the user through creating a space that blurs the lines between reality and creating a virtual reality that seems 'real' (LaValle 2019:7).
[15] Virtual-reality (VR) masks/headsets are digital head-mounted devices that create a virtual reality for the person wearing the gear. The devices project different images for both eyes and have motion tracking. This allows for images/objects to have the same qualities as in reality, for example the changes of angle in image or objects as one moves around. These devices are normally used during video games and to recreate simulators for training (LaValle 2019:16).

virtual realities permit audience members to constantly question what is real and what is not. Fernandez (2013:5) calls this incorporation of real and virtual reality in the same space, 'mixed reality' or a 'theatrical mixed reality experience' (see 3.5)[16].

LED modular walls are used to create digital backdrops[17], while the sophisticated M-Vision Laser 21000 WU projector is used to create front-projection digital scenery (Faber 2020:65)[18]. Cirque du Soleil's *Kà* (2005) is an example of interactive projections, where the movement of the performers is synchronised with projections on two moving platforms, where performers interact with the projections as the production progresses. Furthermore, *Kà* incorporates analog media that change to digital media in partnership with live bodies on stage (Faber 2020:65).

Similarly, the Turkish-Australian theatre-maker Görkem Acaroğlu (2013) uses technology to integrate human and non-human performers on stage, contributing to *The Mixed Reality Performance Lab's* explorations of technology and real-time interaction with humans on stage (Acaroğlu 2013:1). This work features a custom-designed robot (created by the *Centre for Intelligent Systems Research* in Australia) that uses motion to capture and operate an avatar version of the live performer in character. Acaroğlu's (2013:1) performances bring together experiential theatre, site-specific and participatory performances, as well as interdisciplinary works with digital technologies (Acaroğlu 2013:1)[19].

[16] Mixed realities according to Weijdom (2017:8) include the incorporation of mediatised and real elements within the same time and space that creates different realities.
[17] LED modular walls are numerous light-emitting diode (small lights that conduct their own light) that are displayed next to one another, that work together to create an image. These lights work together as a unit that makes it seem as if it is a single screen (Haynes 2018:1).
[18] M-Vision Laser 21000 WU projector as a projector is different from older projectors that work with a lamp, in that it works with a laser. This allows the image that it projects to be much more realistic than a projector that works with a lamp (Stone 2020:1).
[19] A site-specific performance is seen as a performance that takes place in any given space outside the theatre, this can include open spaces, such as a park, house, hospital, and classrooms that can be activated into a theatre space (Pearson & Shanks 2001:16). Site-specific theatre is a performance which overtly uses the properties, qualities, and meanings found at/on a given site; be it a landscape, a city, a building or a room. Each site or location has unique properties that create a specific atmosphere and has different elements that convey meaning (Pearson & Shanks 2001:16).

New Zealand-based Canadian theatre-maker Thiel (2020) brought her experience in motion captioning on the *Lord of the Rings* films to theatre, and extended it in her recent work *Dance me to the end* (2020) (Hope 2020:1). Thiel integrates virtual reality (VR), theatre and dance to create immersive theatre experiences that generate a form of storytelling in order to combine digital worlds and physical interaction between performers and audience members, in a live theatre setting[20]. Audience members wore VR headsets that included sound and vision, whilst watching a film capturing pre-recorded nature-scapes. The live performer wore motion capturing sensors and performed against a screen that showed the same film as on the VR headsets, allowing the live character to interact with a VR character (Hope 2020:1). Another example is Mr Bird and his team at *Knifedge* (a United Kingdom-based theatre company). This team is one of several UK-based theatre-makers that incorporate technology into their performances (Shaw 2012:1). *Knifedge* is reliant on video designers to create an entire set and makes use of: 3-D projections[21], VR headsets for actors, stop-motion camerawork[22] and computer animation to create a virtual set where live performers interact with VR equipment; for example, stage sword fights between a computer-generated avatar and an actor physically presented on stage[23].

South African Indian actor, theatre-maker, director and UP Drama Department alumnus Gopala Davies is arguably one of South Africa's foremost intermedial theatre-makers. Examples of his work include *Barbe Bleue: A Story About Madness* (2013, 2015) and *Les Cenci: A Story About Artaud* (2016) and *Moonless* (2019). Davies' experiments with "layered temporality and spatiality, as well as simultaneity in his works offer revisionist entanglements with liveness, presence and the signifying properties of the performer" in

[20] Virtual reality can be seen as a reality that does not physically exist. It is a computer-generated reality that is created with software and only exists through digital technology (Weijdom 2016:1).
[21] Graphical projectors are computer monitored projectors that project a three-dimensional image onto a two-dimensional plane or wall. These projectors use laser light sources that generate more brightness that projects a better-quality image with more detail to seem more realistic (Barco 2016:1)
[22] Stop-motion camera is an animated filmmaking technique in which different objects are photographed and manipulated between every individual photograph frame. These objects are normally puppets, clay figures or action figures that are manipulated into different poses and then captured. When all the frames are played back it will appear as a moving motion picture (LaValle 2019:20).
[23] Computer animation is computer-generated images that are captured in a frame. When all the frames are placed next to each other it creates a motion picture (DeSalvo 2015:1).

his work (Coetzee 2019:146). Davies mainly uses new media, projection mapping and animation in his work (2019:147).

Research on theatre and performance, in relation to new and digital media, is readily available. Digital performance scholars, Dixon (2007), Papagiannouli (2011, 2012, 2015, 2016, 2017, 2018), Jamieson (2008), Auslander (1999, 2008), Kattenbelt (2006, 2008, 2010), Chatzichristodoulou and Zerihan (2012), explore intimacy in emergent and hybrid performance practices. Beyes, Leeker and Schipper (2017), as well as Burgheim (2016), discuss the conditions of performance work in digital cultures, while Mattos (2015) is concerned with the distribution of digital art via the internet, ranging from cyber performance to net-poetry. Broadhurst and Machon (2011) explore the interfaces between twenty-first century technologies and performance practices. Chapple and Kattenbelt (2006), Bay-Cheng and Kattenbelt (2008), and Lavender and Nelson (2010) examine intermedial performances by means of clustering theoretical key concepts, including performance in digital culture, as well as body, space and time in theatre.

1.1.2 Immersion in South African theatre

The idea of immersion in relation to digital media has surfaced also in South Africa. The POPArt festival (a festival in South Africa that calls for immersive theatre performances) showcased the performance called *Space Journey* that made use of technology to create immersion amongst audience members (Cohen 2017:8). The performance takes place in an old building, with projectors reflecting images and short clips on the walls, whilst the audience walks through the performance space. One projector reflects ‘security laser lights’ that the audience carefully climbs through and over.

Immersive theatre as a genre has also become popular in recent years, not only in countries such as the USA, Britain and Germany, but also in South Africa. Examples include Neil Sandilands’ production called *Taraboemdery* that took place at the *Klein Karoo Nasionale Kunstefees; POPArt’s* production called *Space Journey* in collaboration with artist Marcus Neustetter; andproduction company *Theatrerocket* with their one-on-

one theatre project *Deurnis*, which incorporates elements of immersive theatre and foregrounds empathetic engagement in all iterations of the *Deurnis* productions (Cohen 2017:8).

Taraboemdery, Space Journey and *Deurnis* increase audience participation and allow for strongly immersive experiences among South African audiences (Cohen 2017:8). *Deurnis*, for example, makes use of a combination of immersive elements: one-on-one theatre; directly addressing the audience member; involving the audience member in the narrative; destabilising the fourth wall; and activating an embodied engagement with an audience member (Coetzee 2016:1)[24]. The use of 'private' and 'intimate' spaces outside the theatre space, such as the bedrooms and bathrooms used in *Deurnis* performances, create a paradox where two worlds (the fictional world of the performance and the reality) simultaneously exist in the same time and space. The blurred boundaries between these two worlds create an intimate and empathetic engagement between audience member and characters as the audience member at times can feel the breath or touch of the character (Coetzee 2016:1).

Research on immersive theatre abounds; for example, White (2012), Machon (2013; 2016), Shearing (2015), Green (2017), Wicker (2017) and Mureșan (2019). Scholars such as Arndt, Breitinger and von Brisinksi (2007), Kerr (2011), Igweonu (2011), Terblanche and Broodryk (2014), Makhumula (2017, 2018) and Coetzee (2019), have published on intermediality in theatre in an African or South African context, but research on continental African and South African theatre remains sparse (Coetzee 2019:146).

To contextualise the research, the study will examine the views of Nilsson *et al*. (2016) of immersion and the notion of presence, in relation to immersion. Immersive theatre will be discussed by making use of Machon (2013), Shearing (2015), Green (2017) and Mureșan's (2019) theories of immersive theatre. The study will then draw on Kattenbelt

[24] One-on-one theatre is a type of theatre where only one audience member watches a performance performed by a single actor. The performance normally takes place outside the theatre and the actor engages with the audience member allowing them to become a participant (Coetzee 2016:1).

and Chapple (2006, 2010), Elleström (2010, 2020) and Crossley's (2019) notion of intermediality in performance. Thereafter, the study will discuss transmedia storytelling by drawing on the work of Jenkins (2004, 2007, 2011, 2016) and Rutledge (2012). Focus will be placed on the notion of mixed realities and how mixed realities exist in intermediality and transmedia storytelling, in order to generate immersion. Specific attention will also be directed to liveness, and how it functions in both theatre and mediatised events[25]. The views of Nilsson *et al*. (2016) of immersion and notion of presence in relation to immersion, will be used to create a framework to identify how intermediality and transmedia storytelling function within immersive theatre. This frame will be used in order to create a hypothetical medial, immersive theatrical production that aims to generate immersion among audience members.

1.2 THEORETICAL FRAMEWORK

1.2.1 Immersion

The notion of immersion can be seen as an all-inclusive concept and is used in a number of different contexts; for example, by medical practitioners, advertising companies, virtual training centres and video games (Mureșan 2019:195). According to Murray (1997:98) immersion is "a metaphorical term derived from the physical experience of being submerged in water" (Murray 19:98). Immersion is the "experience of being transported to an elaborately simulated place" (Murray 1997:98), as one is able to experience the "sensation of being surrounded by a completely other reality" (Murray 1997:98) that is able to take over one's attention and enable one to be immersed.

[25] Auslander refers to mediatised events in his book *Liveness Performance* (2008:4) as performances that take place in mediatised culture when mass media or any form of digital media is used in order to present the event. Mediatised events can be seen as the opposite of live events as it is pre-recorded. Auslander (2008:4) further states that it provides an immediate connection between the event and the audience members through the use of digital media and devices that fosters the connection. "Mediatisation is the cultural context in which live performances are now inevitably situated" (Auslander 2008:43). This notion of mediatised events will be discussed in more depth later on in this chapter when exploring the notion of liveness (section 1.2.5).

Immersion according to Nilsson, Nordahl *et al*. (2016:110) and McMahan (2003:98), in the context of users entering virtual realities or playing a video game, state that one should focus on the user's experience with media. McMahan (2003:97) further discusses immersion with regard to users playing a video game and identify two levels of immersion, namely, the diegetic level and non-diegetic level[26]. McMahan (2003:98) further asserts that immersion is also interconnected with the notion of presence, as being present resembles Murray's definition of immersion of "being submerged in" or "transported by" (Murray 1997:98) a complete other reality.

Nilsson *et al*. (2016:110) draw on Witmer and Singer (1998), McMahan (2003), Ryan (2003), Slater (2003), and Ermi and Mäyrä's (2005) definitions of immersion, and divide immersion into three general views:

- **A property of a system** is a virtual environment that users are able to enter and how technology mediates the immersive experience. The more advanced the technology, the greater the level of immersion will be (Slater 2003:3).
- **A perceptual response** is the feeling of being included in the virtual environment and being invited to interact with the virtual reality. It is the sensation of being surrounded by multi-sensory representations of the virtual reality (Arsenault 2005:50).
- **A response to narrative** is being mentally absorbed by the fictional world or virtual realities story; how events unfolding and forming a connection with the characters and spaces, as well objects within this fictional world or virtual reality (Adams & Rollings 2006:110).

[26] Diegetic level of immersion refers to the user's mental absorption of the fictional world and interest in how events unfold (McMahan 2003:68). The non-diegetic level refers to the users desire to interact with the fictional world for example, the users desire to form strategies in order to gain point and win the game (McMahan 2003:68). The non-diegetic level and diegetic level of immersion will be discussed in more depth in Chapter Two.

- **A response to challenges** is the mental absorption when facing challenges or use of one's intellect or sensorimotor skills to overcome obstacles or challenges (Ryan 2008:9)[27].

Similar to McMahan (2003), Nilsson *et al*. (2016:110) also place emphasis on presence and identify four views of presence in relation to immersion. These four different presences in immersion are:

- **The three-pole mode of presence** occurs when the user's spatial attention shifts between the virtual space, mental imagery space and physical space, generating an intimate relationship with the spaces (Biocca 2003:7).
- **The three-dimensional model of attention during a virtual experience is** being able to fully engage with the virtual reality.
- **Presence as a three-layered, bio-cultural mechanism** aids the self in making sense of sensory stimulation, and distinguishing the self from the non-self.
- **Illusions of place and plausibility** enable believability towards the virtual reality or the fictional world.

The three general views of immersion and the four views of presence within immersion, will be discussed in more depth in Chapter Two. I discuss the notion of immersive theatre next.

1.2.2 Immersive theatre

According to Machon (2016:35), immersive theatre is a mode of experimental theatre that refers to the process of being "immersed in an alternative medium" (Machon 2016:35). Immersive theatre according to Mureșan (2019:195), is often referred to as theatre and

[27] These views of immersion resemble the SCI-mode proposed by Ermi and Mäyrä's (2005) that distinguishes between sensory immersion, challenge-based immersion and imaginative immersion. These three categories will be discussed in more depth in Chapter Two.

performance that aim to capture audience members viscerally and in an embodied manner, in an intense and sensory world (Mureșan 2019:195)[28]. Immersive theatre physically places the audience within a fictional world or virtual reality, thereby allowing them to become a participant and form part of the fictional world or virtual reality[29]. Thus, everything within the space is enabled to become 'the stage,' as there is generally no separation between the stage and auditorium as in conventional theatre (White 2012:221).

Immersive theatre focuses on "the movement in space as a form of active involvement" (Mureșan 2019:200). Different theatre styles can be used to create spaces that allow audience members to enter the performance space; for example, site-specific theatre; site-sympathetic theatre[30]; one-on-one theatre; audio walks[31]; installation artwork, and constructed fictional worlds inside virtual reality (VR) cave systems (Havie 2013:1). There is no division between the performance and audience members in immersive theatre and audience members are placed within the fictional world. Immersive theatre encourages audience members to explore the performance space, as well as interact with the performance space. Audience members are also encouraged to interact with the characters in a performance, perform tasks, overcome challenges and even stimulate their senses through; hearing, smelling, seeing, touching, tasting, or feeling objects within the performance. Here, audience members are not only scene-watchers but become scene-makers (Shearing 2015:21).

[28] Visceral or sensory experience refers to the stimulation of all senses such as hearing, smelling, seeing, touching, tasting, and feeling (Machon 2013:68).
[29] Within the study, fictional world refers to the world within the performance and represents the world of the narrative. The fictional world make use of spaces, characters and objects that exists in the physically reality to create a fictional world. The virtual reality also represents the narrative and exists within a virtual environment, instead of physically real objects, characters and spaces, consist of virtual spaces, objects and characters.
[30] A site-sympathetic location also takes place outside of the theatre space. It does not add any historical contexts and only acts as a space that creates atmosphere towards the performance and contributes to the aesthetic of the fictional world (Green 2017:1).
[31] Audio walks are performances where audience members are provided with headsets and able to walk around within a specific space (see Chapter Two section 2.2.1).

The plot within an immersive theatre production allows audience members to form an active relationship with different objects, actors, or other audience members, in order to construct narrative (cited in Rose 2015:4). Immersive theatre offers opportunities for audience members to make choices and even influence the development of plot or narrative to a varying extent. When allowing audience members to participate and engage with activities within the performance, audience members become part of the fictional world and are thus immersed (immersive theatre will be discussed in more depth in Chapter Two). I will discuss intermediality next.

1.2.3 Intermediality

Intermediality is a bridge between what different media modalities have in common, in what way they are different, and how these differences are bridged by intermediality (Elleström 2010:12). According to Muller (2010:18), intermediality is about identifying various relations and inter-relationships between different media modalities, recognising these interactions and formulating a new perspective. Intermediality in theatre practice contributes to contemporary theatre, incorporating digital technology into theatre practice and showing the different media relations within the performance (Chapple & Kattenbelt 2006:11) [32]. Intermedial performances expose the media relations within a performance through showing how media re-mediates[33]. Showing the process of how media re-mediates, creates mixed realities that, in turn, create a completely new and different experience or perspective for the audience members (Kattenbelt 2008:22).

[32] Contemporary theatre can be seen as a hybrid that incorporates different elements or mediums into a performance for example; the use of text, music, objects, costumes, lighting, images, sounds, and set to name a few. These elements of mediums push the boundaries of conventional theatre and demands more of audiences in terms of engagement. These may provide audience with a new theatrical experience or perspective on theatre (Sierz 2008:1).

[33] The term re-meditation was first define through Bolter and Grusin (1999:65) and was used to transform analog media into new media. According to Chapple and Kattenbelt (2008:60) all media can be seen as re-mediated as media is constantly re-mediation into different forms, especially with the fast pace technology is developing. An example of re-mediation can be seen as pictures- re-mediating in motion pictures re-mediating into an animation film (Kattenbelt 2008:60). The notion of re-mediation will be discussed in Chapter Three.

According to Crossley (2019:32), intermedial performances lie in the process of showing the re-mediation of media in a performance. The process of re-mediating forms a disconnection between different media and enables audience members to focus on the interrelations between different media modalities (Crossley 2019:32). Re-mediation creates meaning among audience members through the disconnection of media that expose the intermedial relations between media and the context in which they exist that allow audience members to construct spatial realities and be within different realities. The notion of re-mediation and mixed realities within intermedial performances will be discussed in more depth in Chapter Three.

For the purposes of this study, intermediality refers to theatre works that are "positioned in concept and form within technical and epistemic competence" (Coetzee 2019:147) and reside 'in-between' established media (Klich & Scheer 2012:71) in a mode of communicative engagement that results in a "redefinition of the media that are influencing each other" (Kattenbelt 2008:25). Intermedial theatre refers to the active interweave of the live performer in a digital setting (Faber 2020:69). The body of live performers and selected media interact, creating mixed realities of the dynamic and shifting interface between the live and the digital (more about the live-digital binary and liveness in Chapter Three). The next section discusses mixed realities.

1.2.3.1 Mixed realities

Mixed realities is the incorporation of physically real elements and mediatised elements within the same time and space that create different realities (Weijdom 2017:8). According to Weijdom (2017:8) the physically real is the physical time and space in which one's body is situated and what one perceives as the real or reality. The mediatised or virtual reality is a space where sophisticated technology is used to recreate mediatised elements or virtual realities that seem 'real' (Weijdom 2017:8).

The juxtaposition of physically real elements and mediatised elements within the same time and space generates tension amongst audience members through enabling them to

constantly question what is physically real and what is mediatised (Fernandez 2013:5). This 'tension' is a critical part of mixed realities, as it allows audience contributors to engage with the overall performance, which creates different interpretations and experiences (Fernandez 2013:5). The notion of mixed realities will be discussed in more depth in Chapter Three.

With the above in mind, it can be argued that intermediality can be linked to mixed realities, as intermedial performances consist of mixed realities. Chapple and Kattenbelt (2006:109) assert that intermediality places audience members in a space where the representation of media is exposed in order to allow audience members to critically integrate into the process of how media works, and to constantly be aware of the different realities that are created through the use of media. Intermedial performances create different realities through incorporating digital media that are exposed, allowing audience members to constantly be aware of the different realities (Chapple & Kattenbelt 2006:109). This all takes place in the immediacy, the here and now of the theatre space that creates liveness (see Chapter Two). Transmedia storytelling will be examined below.

1.2.4 Transmedia Storytelling

Jenkins (2007:2) defines transmedia storytelling as diverse segments of narratives that are systematically spread onto different mediums. These different segments of narrative all together, form part of the narrative phenomenon and contribute to the fictional world as a whole (Jenkins 2007:2). Transmedia storytelling uses extensions to extend the narratives onto different mediums or social media accounts; for example books, films, theatre productions and television shows, video trailers, websites, *Instagram*, *Facebook*, *Twitter*, *TikTok*, *YouTube*, *WhatsApp* and *9GaG* (Jenkins 2007, 2011, 2013; Weijdom 2016).

Transmedia storytelling extensions add more insight into the fictional world and characters within the fictional world (Jenkins 2007:1). The extensions offer insight into characters' motives and provide additional information regarding the fictional world.

Transmedia storytelling extensions also provide information on extra interrelated characters within the fictional world (Jenkins 2007:1). These transmedia storytelling extensions can also create a fictional world that seems 'more realistic', as it adds more context and insights that act as evidence of the fictional world's existence. Transmedia storytelling extensions also allow audience members to become participants through participating in fan culture and potentially becoming co-writers that help create different realities and extensions to the narrative, thus creating liveness among audience members (see Chapter Two).

Lars Elleström (2020:6) asserts that transmedia storytelling exists under the umbrella term, transmediality. This is because transmedia storytelling consists of a narrative that transmediates to different mediums. When these different segments of narrative are read against one another, mixed realities are formed (see Chapter Two).

The study will identify how transmedia storytelling exists in an intermedial framework. It will further argue that the interaction with technological devices and the participation of fan culture create liveness among audience members. Lastly, I will identify if transmedia storytelling can enhance immersion through extensions that allow more realism within the fictional world. Following, I discuss the notion of liveness.

1.2.5 Liveness

Auslander (2008:8) asserts that liveness is historically associated with what can be experienced when watching a live performance or event. When referring to live performance, one can identify it as a performance that takes place in the physical present. It is characterised by temporal and spatial simultaneity. Thus, the events or action unfold in a specific time, space and venue, with the audience members also physically present at/in the same time and space as the performers (Auslander 2008:3). According to Auslander (2008:8), live performance can be identified as the binary opposite of mediatised events, as live performances are not pre-recorded and are seen as 'real' as they take place in a shared present.

However, as contemporary cultures all around the world become more dependent on technology, the definition between live and mediatised performance becomes harder to distinguish. Steve Wurtzer (1992:89) adds that one cannot look at the live and the mediatised as simply opposites anymore, as more live performances have started including digital media in their performances. Chatzichristodoulou and Crossley (2016:14) amongst others, point out that whilst current scholarship and practice attempt to subvert or resolve the mentioned binary between the live and the mediatised, it has not succeeded in doing so[34]. According to playwright and actor Wallace Shawn, the chemistry and sense of personal contact between the performance and audience is not only dependent on the immediacy, but also on the characteristics of the performance space (Wurtzer 1992:89). This space can either enhance or undo any potential contact between the performer and spectator. At major live events, audience members can be spatially present but are reliant on a live feed of images of the live event that is projected on screens, in order to see and experience the performance. Thus, the audience members do not experience the immediacy of live performance (Wurtzer 1992:89). Shawn (2012:1) adds that he experiences the same type of immediacy when watching a film at the theatre; he experiences it for the first time, even though the film one is pre-recorded and the other event is live. For Wurtzer (1992:89), liveness is not about whether a performance is live or not, it is about the connection between the audience and the performance.

Audience members can feel the same emotion toward the characters presented in a live theatre performance and a character presented in a mediatised event; for example, a film (Auslander 2008:16). Films can also achieve intimacy through shot choices, implying specific proxemic relations: close-up shots create the illusion that the audience member is closer to the character than they actually are, which enables more empathy towards

[34] Wurtzer (1992:82) explains Whitney Houston's Superbowl performance in 1991; she was singing live in front of an audience, but the audience only heard a pre-recorded version of the song. This performance made use of live and mediatised elements during a 'live' performance which questions what can be considered as live.

the character. This allows the audience to form a connection with the character (Spigel 1992:140).

Thus, in Auslander's (2008, 2017) conceptualisation, liveness operates primarily in temporal dimensions and does not rely on spatial co-presence, as one digital medium allows one to have a connection at any given moment, regardless of the spatial distance (cited in Auslander 2008:111). Margaret Morse argues that there can even be a sense of liveness between human and non-human agents. This is due to the digital media pushing the boundaries of interaction; for example, social media platforms, such as *YouTube*, or websites (cited in Auslander 2008:111). As one interacts with the digital media, it automatically responds to our input, creating a feeling of interaction (Saltz 2001:107) and liveness. Intermedial theatre is simultaneously live and mediatised, and thus foregrounds questions around liveness. At the same time, a sense of liveness arguably, enhances immersion. In light of the discussion of the theoretical framework, the study will also touch upon these notions in the diagram below.

1.2.6 Diagram of the theoretical framework

The diagram below acts as a visual representation of the theoretical framework that will be used in the study.

Immersive theatre

According to Wicker (2017:1) a brief definition of immersive theatre is a theatrical experience that pushes the boundaries of conventional theatre and allows audience members to become immersed in a performance. According to Cole NeSmith (2017:1) an immersive experience can be described as when you are taken by the experience and you become present in that moment, allowing your body and emotions to connect with the event/story or characters. Immersive theatre also allows audience members to react or interact with the events/story when expectations are fulfilled or thwarted.

The medial immersive theatrical production will incorporate transmedia storytelling exertions within the production to enhance the immersive experience.

A intermedial performance will be created through incorporation technology into the live production that places live objects, characters and spaces within the same time and space as the physically real objects, characters and spaces, thus create a mixed realities.

Mixed realities

Transmedia storytelling cretes mixed realities between the fictional world and reality.

Mixed realities

As the intermedial performance consist of live and mediatised elements within the same time and space, mixed realities is creates that generates immersion.

Transmedia Storytelling

Jenkins defines transmedia storytelling as various content/contexts of a fictional narrative that are told on different mediums. These different content/contexts can be read against each other in order to make sense of the large narrative phenomenon (Jenkins 2007:2). Transmedia storytelling makes use of a surreal structure that uses extensions in order to generate narrative. The extensions consist of radical textuality in order to form narrative on different media platforms, and can function as a story on its own that provides more insight/depth to the narrative as a whole (Jenkins 2011:1).

Intermediality

Intermediality is the relation between different media modalities as well as the relationship among different media modalities (Ellestromöm 2017:2). Intermediality is about identifying the various relations between different modalities of media, recognising the interaction between the different modalities of media, and providing a new intermedial foundation for media (Muller 2010:18).

Transmedia storytelling exists under the umbrella term transmediality, and transmediates different segmenst of narrative to different mediums. The extentions used in transmedia storytelling consists of transmediality and multimediality to extend the narrative onto different meduims, and is thus intermedial.

Liveness

Liveness is created through the energy between the performer and audience members as an event unfolds. This energy; according to Bundy (2012:18) can be seen as the presence of comfort or discomfort felt among audience members when watching a live performance. Phillip Auslander (2008:202) states that mediatised events can create liveness and that liveness is not just a matter of being in the same time and space as the event unfolds, but to have a connection toward the event/performance. Morse argues that there can even be a sense of liveness between human and non-human agents.

Liveness exists in both live and mediatised performaces. Thus liveness exists in both the live and mediatised extentions of transmedia storytelling.

Liveness exists in the imediacy of intermedial performances. The here and now of the theatre space allows mediatised elements to become live again. Liveness also exists in the re-mediation of intermedial performances.

Figure 1: A visual representation of my theoretical framework

1.3 RESEARCH QUESTION

1.3.1 Research question and sub-questions

In light of the above, the research question for this study is: How can intermediality and transmedia storytelling provide a framework for a hypothetical medial, immersive theatrical production?

In order to answer the question, the following sub-questions need to be answered:

- What is immersion in theatre, with specific reference to immersive theatre?
- What is immersion in intermediality?
- What is immersion in transmedia storytelling?
- What elements of the above can be extracted to construct a framework for creating a medial immersive theatrical production?

The research processes explained in the section below, will be executed accordingly, in order to achieve the sub-aims and answer the main investigative question.

1.4 RESEARCH APPROACH

This study is a qualitative study that makes use of a literature review and elements of practice-as-research.

1.4.1 Qualitative research

Qualitative research is aimed at exploring the notion of understanding aspects of social life and methods used to generate words rather than numbers (Cheserbro 2007:1).

Qualitative research is not focused on numerical data and accumulating data to formulate statistics, but rather centred around life and human methods that focus on subjective live experience. This research is accumulated through defining definitions, characterising notions, creating hypotheses, and providing descriptions of different phenomena (Cheserbro 2007:1).

Qualitative research locates and studies phenomena in their natural setting, and attempts to define ideas, concepts or meanings that people/scholars bring to them (Rotchford 2002:289). Qualitative research prefers an inductive approach and encompasses a wide range of research strategies and methods[35]. Qualitative research methods are used to explore different theories and the research answers questions about the 'what?', 'how?' and 'why?' rather than 'how many?' or 'how much?' (Rotchford 2002:289). Therefore, it aims to discover and understand phenomena, processes, perspectives and the views of people or the material involved. Inductive thinking is usually associated with qualitative research and is seen as new datum that are generated from theories created. An inductive approach usually uses a research question in order to narrow down the scope of a study, and the aim is usually focused on exploring new phenomena or looking at previously researched phenomena from a different perspective (Gabriel 2013:1).

The study's main method of investigation is a literature review. Based on the literature review, I will construct the hypothetical framework for creating a medial, immersive theatre production.

It is important to note that this framework is created with the technology and possibilities of the virtual reality (VR) cylinder, situated in the Department of Mining Engineering building, at the University of Pretoria, in mind. It is in this regard that I draw on elements of practice-as-research. Practice-as-research allows researchers to generate findings in the process of creating artefacts or other creative work (Trimingham 2002:55). Through

[35] Inductive approaches are usually associated with qualitative research and are seen as new data that are generated from new theories. An inductive approach usually uses a research question in order to narrow down the scope of a study and the aim is usually focused on exploring new phenomena or looking at previously researched phenomena from a different perspective (Gabriel 2013:1).

creating artefacts (for example a theatre work) answers and ideas emerge in order to answer the research question (Candy 2006:1). I offer practical possibilities in the form of a short narrated video recording to illustrate how aspects of the framework can be put into practice.

1.5 Phases of the research

1.5.1 Phase one: Creating a framework

Phase one entails a survey of scholarship, in order to establish the theoretical framework. This phase defines and discusses the notions of immersion, immersive theatre, mediality, intermediality and transmedia storytelling. This phase also discusses how immersion pertains to immersive theatre, intermediality and transmedia storytelling. Through discussing these different notions (immersive theatre, mediality, intermediality and transmedia storytelling), and how they pertain to immersion is necessary for developing the theoretical framework for producing a hypothetical medial, immersive theatrical production.

1.5.2 Phase two: Practical exploration

A short narrated video recording will illustrate how aspects of the framework can be put into practice. This five-minute video captures a simulation of how a medial, immersive theatre production can be produced. The video indicates how elements of the theoretical framework can be incorporated into the production and explains how hypothetical audience members can explore and interact with elements within the hypothetical production. The video recording will also expand on aspects of the narrative and how the hypothetical production is able to further expand the narrative through transmedia storytelling extensions.

1.5.3 Phase three: Interpretation and integration

Phase three discusses how the theoretical framework can be used to create a medial immersive theatrical production. This phase also interrogates and critically reflects on the hypothetical immersive theatrical production and how the production is able to generate immersion among audience members. This phase will also present the findings and discuss the limitations and possibilities for further study.

A number of participants were needed in order to create the practical examples; a short narrated video recording showing the simulation of a medial immersive theatrical performance. Ethical clearance was therefore needed before creating the medial immersive theatrical production and being able to answer the investigative question. The section below will discuss ethical clearance.

1.6 ETHICAL CLEARANCE

Ethical clearance is necessary as the short narrated video recording includes the presence of two actors and a crew member. I provided information about the research and letters of informed consent to the actors and crew members to sign before we embarked on the practical elements of the research (see Annexure A and B). I obtained a letter of permission for the use of the VR Cylinder (see Annexure C) This study followed the ethical guidelines as set out by the University of Pretoria, and the rights of all participants involved were respected and no-one or the institution was harmed. The University of Pretoria's Research Ethics committee approved the proposed study and letters of informed consent before the research commenced. The ethical clearance number is 13041950(HUM014/1220).

1.6.1 Participants: Actors

Two actors (a live character and virtual character) participated in the narrated video that captures the demonstration of aspects of the hypothetical medial, immersive theatre

production[36]. During the recording of the narrated video, the live character interacts with the virtual character (that is pre-recorded) within the VR cylinder. It should be noted that the focus of this study is on the framework and not on the actors' performances.

I used purposive sampling to select the actors. Purposive sampling entails specific criteria which are used to select participants (Ames, Gelenton & Lewin 2019:[sp]). These criteria narrow down participants to ensure that all participants have enough experience or characteristics to participate in the application (Ames, Gelenton & Lewin 2019:[sp]). Criteria for selection were availability, location (must be situated in Pretoria), willingness to waive anonymity and willingness to participate without being remunerated.

As both actors are recognisable in the narrated video (demonstrating how the hypothetical production will operate), I obtained permission from both actors, via the letters of informed consent, to waive anonymity. Furthermore, permission was obtained from the actor playing the live character, for engaging in transmedia storytelling (in character) on social media platforms (by means of recordings and photographs). The actor playing the live character, recorded and uploaded video diaries and photos (of herself in character) onto the mentioned social media platforms (*Facebook* and *Instagram*). The actor's responses and contribution to the research was be treated confidentially, as far as the writing on the research is concerned. The actors will be required to sign the consent form (see information and letter of consent in Appendix A).

1.6.2 Participants: Crew member

In order for the demonstration of the medial immersive theatrical performance to take place, the VR cylinder operator has to be present. This study made use of one crew member. The crew member is the VR cylinder's operator and assisted with operating the

[36] The virtual character is a three-dimensional projection of one of the actors in character, projected into the VR cylinder walls creating a virtual character. The three-dimensional video of the virtual character is captured with the University Of Pretoria's stereo camera (see Chapter Five).

VR cylinder[37]. As the crew member/VR cylinder operator will be present in the VR cylinder at all times, the VR operator will also be visible in the narrative video (demonstrating how the hypothetical production will operate). Permission for this aspect is necessary for participating as a crew member in this study (see letter of consent in Appendix B).

It is important to note that I captured the short three-dimensional video clip that will play during the demonstration of the live production (in the VR cylinder), by using the University of Pretoria's stereo camera[38]. Additional permission was required to use the University of Pretoria's stereo camera and the VR cylinder (see letter of approval, Appendix C).

The COVID-19 pandemic necessitated a national lockdown in South-Africa in 2020. The section below discusses the additional COVID-19 regulations and protocols that were followed during the making of the short narrated video.

1.6.3 COVID-19 regulations and protocols

In response to the COVID-19 regulations on the specified alert level 1, the hypothetical practical part of the research project was informed by the University of Pretoria's policy related to COVID-19.

The broad health guidelines that were followed, are as follows:

- Social distancing will be adhered to.
- Regular handwashing with soap or 80% alcohol-based sanitising hand rub will be provided.

[37] The VR cylinder operator is a permanent employee at the University of Pretoria who works with the VR cylinder for the Department of Mining.

- All participants will be required to wear an appropriate mask. The exception will be for actors who are being filmed[39].
- All surfaces and areas will be sanitised before and after use.
- If a participant suspects they have COVID-19, the participant will be assisted in contacting the appropriate health authorities to arrange for screening, testing and possible treatment.

1.7 DATA STORAGE

In accordance with the University of Pretoria's regulations, data will be stored electronically in the University of Pretoria's University Research Data Repository (Figshare) for 15 years. Participants' permission will be requested in writing, should any person want to access the data in storage again for further research.

1.8 PROPOSED CHAPTER OUTLINE

1.8.1 Chapter One: Introduction

Chapter One is an introduction to the study by providing background and contextualisation. It will define and discuss mediality, intermediality, transmedia storytelling and immersive theatre. This chapter guides the reader with the key terminology used in the study, as well as the explanation of the aim of the study and the research methodology.

1.8.2 Chapter Two: Immersion in theatre and immersive theatre

Chapter Two will discuss the first tier of the theoretical framework: immersion and how immersion relates to theatre. In doing so, the chapter addresses immersive theatre.

[39] The hypothetical production consists of a live character and virtual character. One actor's (the virtual character) performance will be pre-recorded. Actors will not physically interact with one another without masks. Social distance will also be adhered to when capturing the actor's performance with the camera.

1.8.3 Chapter Three: Immersion in theatre and intermedial theatre

Chapter Three will discuss the second tier of the theoretical framework. In doing so, mediality will first be briefly defined and how intermediality exists in the domain of mediality. Intermediality will then be addressed: more specifically intermedial theatre and immersion as pertaining to intermedial theatre. I discuss the notion of mixed realities and re-mediation in more depth in this chapter, as it can be seen as characteristic of intermedial theatre. Lastly, the chapter will identify how liveness functions in intermedial performances.

1.8.4 Chapter Four: Immersion in theatre and transmedia storytelling

Chapter Four will discuss the third tier of the theoretical framework. In doing so, transmedia storytelling will be addressed, as well as immersion and how it pertains to transmedia storytelling. This chapter will also focus on identifying how transmedia storytelling functions in a medial framework and how transmedia storytelling generates liveness among audience members.

1.8.5 Chapter Five: A framework for medial immersive theatre

This chapter will commence by discussing how a hypothetical immersive theatrical production can be produced with the technology and possibilities (VR cylinder) situated in the Department of Mining Engineering building. This chapter will then interlock the information in Chapters Two to Four to create a framework for producing a hypothetical medial immersive theatrical production. This chapter will then critically reflect on the framework created, by identifying possible strengths and room for growth.

1.8.6. Chapter Six: Conclusion

Chapter Six will summarise and conclude the study. I discuss the shortcomings of the study, whilst making recommendations to enhance the framework and it's possible use for further research.

CHAPTER TWO: IMMERSION IN THEATRE AND IMMERSIVE THEATRE

This chapter consists of two sections: immersion and immersive theatre. The first section defines the notion of immersion (a definition which includes Nilsson, Nordahl and Serafin 2016). There are three main views of immersion, as well as four views of presence in relation to immersion. The second section emphasises the use of space in immersive theatre and how it can be utilised to immerse audience members in performance. Please note that the discussion of liveness in theatre (Chapter One) is also applicable to immersive theatre and will not be repeated in this chapter.

2.1 Immersion

According to Mureșan (2019:195), the term “immersion” was initially used in computer games and in multimedia art. Immersion is often an umbrella term used in a variety of domains. Some of these domains include medical practitioners; advertising companies (Kim, Ahn, Kwon & Reid 2017; Maggio & Petersburg 2004); virtual training centres (Witmer & Singer 1998; Slater 2003); video game studies (McMahan 2003; Brown & Cairns 2004; Adams & Rollings 2006); music studies (Dura 2006; Ihde 2007); the entertainment industry (Rooney, Benson & Hennessy 2012; Visch, Tan & Molenaar 2010), and research that explores interactive works of literary fiction (Ryan 2003; (Machon 2013:xvii). Adjacent to the sources mentioned above, Machon (2013:xivii) states that the term immersion is integrated by theatre practitioners, marketers, reviewers, researchers, and people who attempt to describe a genre, rather than an experience (Machon 2013:xvii). Machon (2013:xvii) asserts that although many theatre practitioners, marketers, reviewers, and researchers describe immersion as a genre, it is impossible to define immersion as a genre and immersion should rather be referred to as an experience. The use of the term immersion in this study will focus on immersive experiences during a production.

As mentioned in Chapter One, immersion is “a metaphorical term derived from the physical experience of being submerged in water” and the “experience of being transported to an elaborately simulated place” (Murray 1997:98) that takes over all of one’s attention (1997:98). Immersion enables participants to completely submerge within an alternate reality, much like being surrounded by a body of water when submerged in it. This experience of complete submersion surrounds the participant in such a way that it completely overwhelms the participant’s senses and takes over the participant’s perception of reality, and enables one to be immersed (Murray 1997:98).

Theorists, such as Witmer and Singer (1998), McMahan (2003), Ryan (2003), Slater (2003) and Ermi and Mäyrä (2005), all make use of Murray’s (1997) definition of immersion. All of the above-mentioned theorist however, adds that it is problematic to rely only on Murray’s (1997) definition of immersion as a metaphor of “being submerged in” or “transported by” (Murray 19:98) a complete other reality, as many game players or book readers are not able to literally transport themselves into the fictional world within a book or video game. Nilsson, Nordahl and Serafin (2016:109) agree that defining immersion according to Murray’s definition of “being submerged in” (Murray 1997:98) is not significant enough and they state that one should rather define immersion as a user’s experience with media; for example, someone interacting with virtual reality[40] or virtual environments[41]. Similarly, McMahan (2003:67) refers to immersion as a user’s experience with media and discusses immersion in relation to video games, distinguishing between two levels of immersion namely, the diegetic level and the nondiegetic level[42]. McMahan (2003:68) further posits that immersion has become “an excessively vague,

[40] According to Blascovich and Bailenson (2011:[sp]) virtual reality is a broad term used to describe any form of mediated realities whereas virtual environments are a system that uses advanced technological devices that create an artificial reality and simulate a perception of reality; for example, a VR cave system.
[41] When defining immersion according to Nilsson, Nordahl and Serafin (2016), it is defined in relation to a user interacting with virtual realities or virtual environments.
[42] The diegetic level of immersion referred to narrative immersion in this study, will be described in more depth in section 2.1.2. The nondiegetic level referred to as challenge-based immersion in this study (section 2.1.1.).

all-inclusive concept" (McMahan 2003:68) as it can describe different experiences that may be interconnected with concepts such as presence[43] and engagement[44].

One of the biggest differences when defining immersion, according to Nilsson *et al*. (2016:110), is the distinction between immersion in technology and immersion as an experience. Slater (2003), argues that immersion in technology can submerge one into another "reality" (fictional world or a virtual reality). Other scholars, such as Ermi and Mäyrä (2005); Adams and Rollings (2006); Arsenault (2005); Ryan (2003, 2008); and McMahan (2003), maintain that it is about the "user's subjective experience of being submerged"(Murray 1997:98). Evidently, the meaning and use of the concept 'immersion' differs across various contexts of conceptualisation, practice and application. However, the different meanings and uses of immersion seem to share that immersion refers to "a subjective experience which can be measured only by the participant according to the degree to which it reflects the intensity of his cognitive, emotional and sensory connection, by reference to the content and the form of a work of art" (Mureșan 2019:196)[45]. This subjective experience is often shaped through and by specific technologies.

There are four possible views of immersion with reference to Nilsson *et al*. (2016:110)[46]. These four general views include:

- **A property of a system** presents the virtual reality and how technology mediates the immersive experience, and the more advanced technology is, the greater the level of immersion (Slater 2003:3).

[43] Immersion and sense of presence (SoP) can be seen as interconnected as when users are immersed in a space/environment they preserve it as reality (Cadet & Chainay 2020:[sp]). See section 2.1.3.1 for more information.
[44] See section 2.1.3 for a discussion of the link between immersion and engagement.
[45] Mureșan's (2019) study focus on the role of the audience members within contemporary theatre and how audience members are able to enter the performance space and become a participant (2019:193).
[46] These categories resemble the SCI-mode proposed by Ermi and Mäyrä's (2005) that distinguishes between sensory immersion, challenge-based immersion and imaginative immersion. These three categories will be discussed in more depth later in this chapter.

- **A perceptual response** according to Arsenault (2005:50), is the feeling of being included in the virtual reality and being invited to interact with the virtual reality. It is the sensation of being surrounded by multisensory representations of the virtual reality (Arsenault 2005:50).

- **A response to narrative** refers to being mentally absorbed by the fictional world or virtual realities story, and the unfolding of events and characters (Adams & Rollings 2006:110).

- **A response to challenges** refers to the mental absorption when facing challenges or the use of one's intellect or sensorimotor skills (Ryan 2008:9).

Furthermore, the four general views of immersion by Nilsson *et al*. (2016:129) can be reframed into three categories:

- a property of the system (system immersion);
- a subjective response to narrative (narrative immersion); and
- a subjective response to challenges (challenge-based immersion)[47].

The above-mentioned categories will be discussed in the following section to identify how immersion can be generated[48].

2.1.1 A property of the system (system immersion)

[47] Adams and Rollings (2006) also categorize immersive theatre into three categories. According to Ermi and Mäyrä (2005) perceptual immersion (being surrounded by multisensory representations of virtual environments) overlaps with system immersion and resembles some of the same qualities as narrative immersion and challenge-based immersion. Thus, immersion as a response does not add any significant value on its own and forms part of system immersion, narrative immersion, and challenge-based immersion (Ermi & Mäyrä 2005). This will be discussed in more depth later on in this chapter.
[48] When defining Nilsson *et al's*. (2016:129) three general views of immersion, "system immersion, narrative immersion and challenge-based immersion" will be used. Nilsson *et al*. (2016) revisited existing definitions of immersion and identified these three views as the most used, and most comprehensive terminology to describe the different forms of immersion.

With reference to immersion as a user interacting with virtual environments, technology is able to immerse users, as the technology surrounds the user and enables them to be immersed within the virtual reality. Nilsson *et al*. (2016:129) refer to the user's interaction and response to certain stimuli within a VR environment as a property of a system. Slater (2003:1) refers to the interaction with certain stimuli in a VR environment as system immersion, asserting that it is measured through what technology delivers objectively: the closer the technology can represent real-world sensory modalities, the greater the user's level of immersion (Slater 2003:3)[49].

In keeping with Slater (2003:3), Witmer and Singer (1998:227) and Nilsson *et al*. (2016:129) agree that immersion should also focus on the user's subjective experience when interacting with the virtual environment. In addition, the latter assert that one should look at the user's perceptual response, whereas Ermi and Mäyrä (2005) refer to the notion of perceptual response as sensory immersion, when exploring the user's subjective experience with virtual environments[50].

Perceptual response according to Arsenault (2005:50), is the feeling of being included in the virtual environment and being invited to interact with the virtual reality on a sensory level[51]. In addition, McMahan (2003:77) avers that perceptual response in the context of VR, aims to negate any sense of external reality, in order to allow the user to perceive the virtual environment on a sensory level. The user perceives the sensation of being surrounded by multi-sensory representations of the virtual environment (Arsenault 2005:50).

[49] Sensory modalities can be referred to as one's senses; hearing, seeing, smelling, touching and tasting (Slater 2003:3).
[50] Ermi and Mäyrä (2005:43) define sensory immersion as a feeling of being surrounded by multisensory representation of technology for example big screens, speakers or headphones that overpowers the sensory information of reality and only allows the user to focus on the virtual reality. This study will be referring to Nilsson, Nordahl and Serafin's (2016) notion of perceptual immersion.
[51] This sensory level refers to the user begin able to engage with the virtual environment through their senses (Arsenault 2005:50). It is important to know that these senses do not only refer to the user engaging with their five senses (smell, taste, touch, seeing and hearing) in the virtual environment, but also refers to the users understanding of their own body in the virtual environment (2005:50).

According to Witmer and Singer (1998:227), there are three factors that influence the user's subjective experience of immersion[52]. The first factor includes the level at which the user can be isolated from the physical world. The second factor addresses the user's self-inclusion within the virtual environment, and the third factor speaks to the user's ability to interact with the virtual environment (Witmer & Singer 1998:227). Immersion is therefore achieved through the user's sensation of being enveloped by the virtual environment and assigning one's focus and attention towards interacting with virtual reality.

In the context of video games, Brown and Cairns (2004:1297) identify three levels of immersion: engagement, engrossment and total immersion. Engagement occurs when the player invests their time, effort and attention into learning and playing the game (Brown & Cairns 2004:1297). Engrossment refers to the investment of the gamer's complete attention on the game, which permits the gamer to connect with the game on an emotional level. The gamer can become more immersed in the game and less aware of their self and surroundings (Brown & Cairns 2004:1290). Total immersion occurs when the gamer, now fully immersed in the virtual reality of the game, empathises with the narrative and/or characters in the game. The gamer is therefore cut off from their personal surroundings and reality (Brown & Cairns 2004:1297).

The levels of immersion identified by Brown and Cairns (2004:1290) resemble those of Witmer and Singer's (1998) subjective experience of immersion. Both Brown and Cairns (2004), as well as Witmer and Singer's (1998) notions of immersion can be seen as perceptual responses, as their notions focus on the manner in which the user can be immersed within the virtual environment, through engaging with the virtual environment, and investing time in the virtual reality, temporarily forgetting about reality. The user's

[52] Witmer and Singer (1998) explored the users experience in virtual realities and defined immersion as a "feeling of being enveloped by and included in" (Witmer and Singer 1998:227). Witmer and Singer's (1998) theories are important to this study as they defined Nilsson *et al*. (2016:129) notion of perceptual response.

perceptual response improves with the increase in system immersion. The more advanced the technology surrounding the user, the more immersed the user should feel.

Furthermore, a perceptual response is similar to the three categories of immersion posited by Nilsson *et al*. (2016:116), the three categories being system immersion, narrative immersion and challenge-based immersion. According to Nilsson *et al*. (2016:115), perceptual immersion or sensory immersion is the act of being immersed and can accordingly be experienced in all three categories[53]. The feeling of inclusion in the virtual environment and engrossment can be seen as system immersion, whereas the use of technology allows the user to forget about reality and feel included in the virtual reality. This can either be achieved through the user entering a virtual environment or through playing a video game. The user's self-inclusion into the virtual environment and total immersion can be seen as narrative immersion, where the user invests more time in the virtual reality and sees it as 'reality'. The user is immersed in how events unfold, interacting with spaces in the virtual environment and forming empathy towards characters; thus they become present in the virtual reality (Nilsson *et al*. 2016:116). Lastly, the user's ability to interact with the virtual reality and be engaged, can be seen as challenged-based immersion. Thus, the user is able to interact with the virtual reality, perform tasks and form strategies in order to complete the challenges provided in the virtual reality. Therefore, a perceptual response can be divided into system immersion, narrative immersion and challenge-based immersion, Nilsson *et al*. (2016:115) do not include the notion of perceptual response in their types of immersion, as it overlaps.

Accordingly, immersion can be objectively measured through the property of the system (system immersion). When creating the practical application (a hypothetical medial immersive theatrical production), a VR cylinder will be used, in order to create a virtual environment that allows audience members to enter and immerse through system immersion[54]. In order to allow audience members to immerse on different level, the study

[53] See section 2.1.2 and 2.1.3.
[54] The use of the VR cylinder to create a medial immersive production will be discussed in more depth in Chapter Five.

will also focus on narrative immersion and challenge-based immersion, incorporating both narrative immersion and challenge-based immersion into the practical application (a medial immersive theatrical production). I discuss narrative immersion below.

2.1.2 A subjective response to narrative (narrative immersion)

According to McMahan (2003:69) users can immerse on a diegetic level of immersion. The diegetic level of immersion refers to the user's mental absorption of the virtual reality and interest in how events unfold, as well as how narrative occurs (McMahan 2003:68). Nilsson *et al*. (2016) refer to this as a response to narrative; similarly, Adams and Rollings (2006) refer to this as narrative immersion[55]. When the user is mentally absorbed by the story of the virtual reality and how events unfold, the user becomes so immersed that they see the virtual reality as 'real' or as 'the reality' (Adams & Rollings 2006:110).

Ryan's (2008:7) view of narrative immersion is similar to that of Adams and Rollings (2006:110) and provides a more in-depth description of narrative immersion. Ryan (2008:7) postulates that narrative immersion can be divided into three sub-categories: temporal immersion; spatial immersion; and emotional immersion[56]. Temporal immersion links to the user's desire to know how events unfold and to find out what is going to happen next; it is important for the narrative and characters to be believable (Ryan 2003:141). Spatial immersion is the environment of the virtual reality and the user's response to the virtual space[57]. Spatial immersion is also reflected in the joy the user experiences when

[55] It is important to note that there are also alternate definitions of narrative immersion for example; Ermi and Mäyrä's (2005) term, imaginative immersion, Arsenault's (2005) fictional immersion and McMahan's (2003) psychological immersion. Imaginative immersion allows the user to mentally absorb the story and characters of the games. Fictional immersion also allows the user to be mentally absorbed in the story and characters, but it allows the user to enter a virtual environment and does all takes place in the user's imagination (cited in Nilsson *et al*. 2016:111). Psychological immersion is the mental absorption of the user when exposed to a video games world and story (cited in Nilsson *et al*. 2016:111).

[56] These three sub-categories exist under narrative immersion as the unfolding narrative causes these sub-categories simultaneously (Nilsson *et al*. 2016:117). It is also important to note that although the description of these sub-categories is rooted in the experience of reading narrative, it may also be applied to virtual realities or fictional immersion.

[57] Users or audience members can either be immersed in the fictional world or virtual reality. The virtual reality refers to users or audience members being present within a virtual environment, and in the fictional

exploring the virtual environment (Ryan 2003:122). Spatial immersion is further referred to in relation to textual narrative[58] where the reader's imagination of the landscape merges with the textual geography. This allows the user to develop an intimate relationship with the virtual environment and to be present in that virtual reality (Ryan 2003:122).[59] When spatial immersion incorporates advanced technology, it resembles perceptual immersion (as discussed in section 2.1.1), (McMahan 2003:45). Lastly, emotional immersion is the emotional attachment the user forms towards the characters in the virtual reality (Ryan 2003:130).

Essentially, narrative immersion and its sub-categories, make use of various processes to immerse the user. These processes include mental absorption and interest in the narrative, the unfolding events, spaces and characters inhabiting the spaces. The user feels included in the virtual environment through inhabiting the spaces, forming relationships with the virtual reality and with the characters occupying that world. These factors allow the user to perceive the virtual reality as 'real'. The use of media can influence the reader's experience; for instance, advanced technology, such as virtual reality (VR) cave systems, offer the user instant transportation into the virtual reality. Textual media, such as books, gradually transport the reader to the fictional world[60].

When creating a hypothetical medial immersive theatre production, narrative immersion is used in order to engross the audience members on different levels. As audience members move through the space, spatial immersion is initiated. Emotional and temporal immersion is generated through the narrative as the story told in the virtual environment is extended through transmedia storytelling extensions[61]. Experiencing virtual realities

world, audience members are present within the fictional world as set up within the performance space(see Chapter Five).

[58] Textual narrative according to Sejnost and Thiese (2010:1) refers to any type of writing that consists of a series of events that occur, for example, novels, poems, short stories, memoirs, news stories and biographies.

[59] A considerably basic definition of textual geography refers to the fictional world created and described by an author (Scanlon 2014:138).

[60] It is important to note that temporal immersion, spatial immersion, and emotional immersion can be experienced across different types of media and is not limited to only virtual environments or books (Nilsson *et al*. 2006:115).

[61] Emotional and temporal immersion will be discussed in more depth in Chapter Five.

can initiate narrative-based immersion, as pointed out by Ryan (2008:133). According to McMahan (2003:87), immersion does not rely only on explicit narrative contents but can also take place when the user is focused on performing a task. Challenge-based immersion will be discussed next.

2.1.3 A subjective response to challenges (challenge-based immersion)

According to Nilsson *et al*. (2016:116), immersion is also generated when a state of focus, attention, observation, calculation, and planning is required from a user when tasks are being performed. Ermi and Mäyrä (2005:43) describes the ability of the user to engage with the challenge and use their abilities to solve the problem at hand, as challenge-based immersion.

Similarly, McMahan (2003) refers to this level of immersion as engagement (a sensation of immersion on a non-diegetic level)[62]. The non-diegetic level of immersion is the user's desire to interact with the virtual reality and takes place when the user is required to devise strategies to play the game and gain points within the game (McMahan 2003:68). Furthermore, McMahan (2003:68) refers to the sensation of immersion on a nondiegetic level, as when the user is required to devise strategies in order to play the game. Nilsson *et al*. (2016:116) refer to this non-diegetic level of immersion as a response to challenges.

Users are challenged to apply both their sensorimotor and mental skills to complete tasks[63]. The tasks should be sufficiently brief to avoid overwhelming the users with information or creating confusion among them, enabling them to either use their sensorimotor skills or mental skills at one time. Allowing the user to use their sensorimotor skills or mental skills one at a time, enables the user to divide their attention and have enough energy left to complete the second or third task (Ermi & Mäyrä 2005:43). Similar

[62] Other resembling terminologies for narrative immersion includes Arsenault (2005) system immersion, Adams and Rollings (2006) strategic and tactical immersion and Ryan's (2008) ludic immersion. Nilsson *et al*. (2016:111) place all these terminologies under a response to challenges (challenge-based immersion) as all these terms represent the same thing.
[63] Sensorimotor skills are the process of receiving sensory information that initiates a response. This sensory information is obtained in the environment through one's body by hearing, smell, vision, taste, touch, vestibule and proprioception (Fazlioglu & Gunsen 2011:346).

to the findings of Ermi and Mäyrä, Adam and Rollings (2006:43) also divided challenge-based immersion into two sub-categories namely: strategic immersion and tactical immersion.

Strategic immersion refers to the use of one's intellect to overcome obstacles. The user is mainly focused on forming strategies and optimising their choices to win the game, so much so, that elements of the story and characters are minimised. The user is therefore immersed through observation, calculation and planning (Adams & Rollings 2006:30). Tactical immersion refers to a level of immersion that is achieved when the user playing the game is continuously inundated with obstacles. These obstacles require the user to invest all their attention and focus on the game. This undivided attention does not allow the user to focus on other elements, such as general strategies or narrative (Adams & Rollings 2006:30). Thus, challenge-based immersion immerses the user by allowing them to engage and interact with the virtual reality. It demands intense focus and attention from the user in order to physically react to occurring obstacles or cognitive demands. Permitting users to focus their attention on performing a task or overcoming an obstacle, enables them to pay less attention to reality and place more focus on the virtual reality and become immersed in it. When creating a medial, immersive theatre production, challenge-based immersion can be utilized - requiring the audience members to perform tasks and overcome challenges provided in the fictional world/virtual reality.

According to Nilsson *et al*. (2016:129), the notion of challenge-based immersion resembles the experience of what Csikszentmihalyi (1990) terms flow. Flow, according to Csikszentmihalyi (1990), is seen as an optimal experience, where skills are needed to perform an activity. Flow requires the user to place all their attention on playing the game that creates clear goals and allows a high degree of concentration by the user (cited in Jennett, Cox, Cairns, Dhoparee, Epps, Tijs & Walton 2008:642). This high level of concentration creates a loss of self-consciousness, loss of time, and sense of control among users that allow them to fully immerse in the virtual reality[64].

[64] The notion of flow overlaps with immersion as both terminologies aim to draw audience members into a fictional world or action that enables them to forget about reality. Flow can however be seen as the

Similar to Jennett *et al*. (2008:642), Haywood and Cairns (2005) explore the notion of flow when defining immersion as an act of engagement and participation among users. Haywood and Cairns (2005) argue that immersion is created when there is a basic progression structure that permits participants to create their own idea and understanding of the interactive system (cited in Jennett *et al*., 2008:642). This interactive system can be identified by its three key features of engagement: flow, cognitive absorption, and presence. Cognitive absorption according to Agarwal and Karahan (2002), is the involvement of software (cited in Jennett *et al*., 2008:642)[65]. It is important to note that cognitive absorption is focused on the user's attitudes towards information technology,[66] whereas immersion is the actual experience of engaging with the technology.

The psychological subjective perception where individuals' experiences are generated through technology, is called presence (Slater 1994:9). Incorporating technology mimics reality, allowing the user to be present in the virtual reality[67]. Nilsson *et al*. (2016:129), identify four different ways in which users can feel present in immersion: the three-pole mode of presence (why textual media for example, a book can generate presence). Three-dimensional model of attention during a virtual experience (being able to fully engage within a virtual reality). Presence as a three-layered, bio-cultural mechanism (that aids the self to make sense of sensory stimulation) describes immersion and illusions of

extreme of immersion as audience members losses all interactions with reality and immersion have degrees of engagement.

[65] Cognitive absorption and can be derived into five dimensions namely: temporal dissociation (interacting with the technology that allows the user to forget about reality); attention focus (being focused on the task at hand), heightened enjoyment (the user enjoying the interaction with technology for example the user enjoys playing the game); control (the user being in control of their actions and forming strategies); and curiosity (the user exploring new aspects of the virtual reality) (cited in Jennett *et al*., 2008:642).

[66] This information technology are specifically focused technological devises used to play video games on.

[67] It is important to note that not all immersive experiences take place through the incorporation of advance technology and can also consist of representational media for example a television, photographs, sculptures, paintings or theatre productions (see section 2.2) (Nilsson *et al*. 2016:119).

place and plausibility, enabling believability in the virtual reality[68]. Below, I discuss the notion of presence in immersion.

2.1.3.1 Presence in Immersion

As mentioned previously, immersion and presence are often seen as interconnected concepts (McMahan 2003:68). McMahan (2003:68) introduces presence as the basis of immersion and argues that being present (the feeling of being there), resembles Murray's (1997) definition of immersion of "being submerged in" or "transported by" a complete other reality. According to Biocca and Delaney (1995:57), immersion refers to "the degree to which a virtual environment submerges the perceptual system of the user". Virtual environments are therefore defining features that establish a sensation of being present within the computer-generated environment (Nilsson *et al*. 2016:119)[69]. In keeping with the above, Cadet and Chainay (2020:[sp]), state that immersion and the sense of presence (SoP) are inextricably interconnected with the use of virtual reality (VR) environments, and experimental evidence from theorists such as Buttussi and Chittaro (2018); Davis *et al*. (1999); Dinh *et al*. (1999); Makowski *et al*. (2017); Mania and Chalmers (2001), and Sutcliffe *et al*. (2005) have proved this to be true[70]. Virtual reality (VR) systems immerse users, thus permitting them to feel more present by increasing immersion. This will be discussed in the section below, with the focus on four views by Nilsson *et al*. (2016) of presence in relation to immersion; more specifically, how presence relates to narrative immersion and challenge-based immersion.

2.1.3.1.1 The three-pole mode of presence

[68] Bio-cultures are biological and cultural elements that affect human behavior. It can be seen as the natural world and cultural systems that are bridged over by human creativity or behaviour, and natural science. It encapsulates the diverse way in which the body and mind work together and how these ideologies are passed over from generation to generation (Rotherham & Bridgewater 2019:300).
[69] It is important to note that presence is not limited to only virtual environment and can also exist in immersive theatre productions that do not take place virtual environments (see section 2.2).
[70] Although Cadet and Chainay (2020:[sp]) assume that presence and immersion can be separated, they still agree that immersion and sense of presence (SoP) can be seen as interconnected.

Biocca (2003:1) argues that the two-pole[71] of presence, the feeling of either being present in the physical environment or in the virtual environment, is flawed[72]. In response to this flawed model, Biocca (2003:5) introduces three-pole model of presence that is centred on the individual's mental imagery space[73]. Mental imagery space allows users to feel present in both physical and virtual environments simultaneously (Biocca 2003:5). Spatial models are produced by mental imagery and have some of the same properties as sensorimotor spaces. Sensorimotor spaces, similar to visual and sensory processes, generate mental imagery spaces. Presence can therefore, be generated from the mental model of spaces and is able to shift between the virtual, physical, and mental imagery space at any point in time (Biocca 2003:5). The shift between the above-mentioned spaces is controlled by spatial attention[74]. The shift between the physical environment and the virtual environment is achieved through sensory-driven cognitive processes and memory that create a mental mode of objects[75]. The experience of intense spatial immersion, according to Ryan (2003:122), is generated through the shift between all three spaces. This, in turn, allows the user to develop an intimate relationship with the setting around them and generates a sense of presence towards the represented event.

Biocca (2003:6) argues that the level of presence generated from system immersion is higher. System immersion for instance, a virtual environment, allows the user to enter a virtual reality which does not require the use of as much salience of memory, nor as much inter-subjectivity of mental memory, in order to interpret the environment (Biocca 2003:7)

[71] The two-pole psychological model of presence is seen as the standard theory of presence, and states that media users are either present in the physical or virtual space. This is often referred to as spatial presence or physical presence (Biocca 2003:1).
[72] According to Biocca (2003:3), the notion of the two-pole assumption is flawed as it states that one can only be present in either the physical environment or virtual environment at a time. It is also unable to identify how presence occurs without system immersion for example in everyday life and when an individual is dreaming, or without nonionic media for example a book (Biocca 2003:3).
[73] Mental imagery according to Biocca (2003:6) is individuals' mental modes of spaces that are constructed from self-referentiality.
[74] Spatial attention according to Vera and Ruzzo (2003:573), refers to the prosses of selecting some spatial locations over others based on their stimuli.
[75] Cognitive processing refers to identifying objects or setting through observation and interpretation (Tenbrink 2014:98). It is being able to look at settings or objects and being able to observe and interpret what one is seeing through our mental representation of that object or setting (Tenbrink 2014:98).

[76]. Thus, the spatial attention in virtual environments has to stay the same for the user to feel present. Virtual environments that do not consist of interesting narrative or user challenges afford the opportunity for the user to not be fully present and therefore able to shift between spatial attention (shifting between the physical reality and the virtual reality) (Biocca 2003:6). Consequently, in order to generate presence in virtual environments, a combination of system immersion and mental absorption (narrative immersion) is needed.

Narrative immersion and its subcategories (temporal, spatial and emotional), allow the user to feel present in the space on a diegetic level (Biocca 2003:10). The user is able to be present through emotionally connecting to the narrative events, characters, and locations within the virtual reality. The emotional connection prevents the user from shifting between the virtual reality and physical reality, allowing them to be present at all times (Biocca 2003:10). Actions performed in spaces also allow the user to feel present in the space, as the spatial involvements create high spatial attention and stimulation. Thus challenge-based immersion also enhances presence. Furthermore, challenge-based immersion permits audience members to react towards obstacles present in the virtual environment, which allows attentional resources to be entirely devoted to direct perceptual processing (Biocca 2003:7).

Presence can thus exist in both keeping spatial attention of one space or through the constant shift of spatial attention. The user can feel a sense of presence when spatial attention shifts between the virtual space, the imagery space and the physical space, which permits the user to develop an intimate relationship with the spaces. It also allows the user to feel present in the represented space, as the shift between the different spaces heightens the user's physical presence. On the other hand, through keeping spatial attention, users can also feel present. The use of system immersion, narrative immersion and challenge-based immersion, permits the user to interact with the virtual environment and form emotional connections with characters and spaces in the virtual reality. This

[76] Salience of memory is how items or objects are recognized and stands out from others (Rayond 2014:1).

prevents the user from shifting between different spaces and encourages them to stay present at all times.

It can thus be argued that when users feel present in a space, they are fully immersed in that space through spatial immersion. When a user feels fully immersed in a space, they are able to form relationships with the space and thus feel part of it, which enables them to have a sense of presence (SoP). The shift between all three spaces (virtual space, imagery space and physical space) also immerses the user as the shift heightens the reality of each represented space through allowing the user to constantly question their physical presence within that space. It can also be argued that the shift between these three spaces creates an intermedial space, as it creates mixed realities which permit immersion (this will be discussed in more depth in Chapter Three).

Thus, in creating a medial immersive theatre production, the production will consist of mixed realities. The three-pole mode of presence will allow audience members to shift between these different realities and be present in all three realities (see Chapter Five).

2.1.3.1.2 Three-dimensional model of attention during a virtual experience

The second perspective of presence in immersion is Waterworth and Waterworth's (2001:211) three-dimensional model of attention during a virtual experience. Waterworth and Waterworth (2001:211) state that in order for a user to be present, identical sensations of reality within a virtual environment should be re-created. Although Waterworth and Waterworth (2001:211) agree that system immersion increases presence, they question whether virtual environments are always able to generate the same sensations as felt in reality. In response to this, Waterworth and Waterworth (2001:211) have created a model to measure the user's attention towards the virtual environment namely, the focus of attention, the locus of attention and the sensus of attention.

The focus of attention arises when the emphasis is placed on either the physical space or on the virtual environments within and around an individual. They pay attention to the virtual space or physical environment and present within a represented reality. If the user enters a virtual environment that consists only of high degree of abstract information, such as the user's mental imagery, the user enters a sense of absence, not presence. This is due to the user's attention towards resources in virtual environments playing an important role (Waterworth & Waterworth 2001:211). The locus of attention is defined as the user's ability to allocate their attention to either the virtual environment or the physical environment. Lastly, the sensus of attention is the degree of conscious stimulation experienced by the user in a virtual environment (Waterworth & Waterworth 2001:211).

According to Waterworth and Waterworth (2003:[sp]), system immersion provides enough information to allow users to focus on different resources in the space. This focus stimulates the users, creating presence. Narrative immersion can also contribute to users being presence in the virtual environment. Narrative immersion enhances presence among users by focusing on the narrative and unfolding events, rather than on what is real and what is not. Although Waterworth and Waterworth (2003:[sp]) state that presence should not be confused with emotion, emotional stimuli obtained from the virtual environment can also contribute to a sense of presence among users. This is because virtual environments can distribute resources onto perceptual processing[77]. Enhanced immersion can be achieved through the user being entirely focused on reacting to challenges and obstacles in the virtual environment, encouraging challenge-based immersion, thus indicating that all resources are almost completely focused on direct perceptual processing.

[77] Perceptual processing can be seen as the process of selecting stimuli, organizing it into ones existing pattern and then interpreting it towards ones owns experience (Waterworth & Waterworth 2003:[sp]).

Therefore, virtual environments can allow the user to feel present through system immersion that provides the user with enough resources to feel present. Narrative immersion places emphasis on story and unfolding events, whereas characters permit the user to stay present and not focus on what is real and what is not. It also allows presence among users through mental imagery collected from narrative immersion. Allowing the user to be present in the virtual environment and form emotional connections or relationships with characters, narratives, and spaces within the virtual environment, generates immersion.

When creating a medial immersive theatre production, the three-dimensional model of attention will be engaged during a virtual experience throughout the medial immersive theatre production. The three-dimensional model of attention will be in play when the audience members enter the virtual environment, as well as when the virtual character engages and refers to the audience members in the fictional world (although a live character will enter the virtual environment and create mixed realities, as discussed in Chapter Five).

2.1.3.1.3 Presence as a three-layered, bio-cultural mechanism

Riva (2009:159) agrees with Waterworth and Waterworth (2001) that enough focus and resources lead to presence and expand on their studies by further explaining how focus can either produce a state of presence or absence. Presence, according to Riva, Waterworth and Waterworth (2004:402), is a bio-cultural mechanism that allows the user to make sense of perceived sensory data[78]. It permits users to separate external perspectives from imagined events and situations. Riva (2009:402) opine that there are three different layers of presence that one can distinguish between, proto presence, core consciousness and extended consciousness.

[78] Sensory data is the effect the external world has on one's subjective senses (Riva *et al*. 2004:402).

Proto presence is mostly an unconscious embodiment that allows oneself to distinguish between the self and the non-self through perception and action (Riva *et al*. 2004:203). Kinaesthetic information of the body in the surrounding environment will help distinguish between the self and non-self, as there is a difference between performed movement and perception[79]. Core consciousness is the representation of the physical environment where the self can place selective attention on perception. This takes place when attention is placed on sensorial experiences that allow one to identify the present moment and focus on the task at hand (Riva *et al*. 2004:203). Extended consciousness is the ability to visualise possibilities beyond the current situation, enabling one to create significant interpretations of external events and ensure the self to be present in a significant experience[80]. When all three layers integrate on the same layer, the highest level of presence is experienced. This resembles Waterworth and Waterworth's (2001) focus dimension[81].

In order to integrate all layers of presence, proto presence needs to be present, as it functions on a proprioception and spatial level, as well as on internal monitoring. Riva *et al*. (2004:407) further argue that only a high degree of system immersion, such as virtual environments, will be able to generate proto presence. Proto presence is facilitated because system immersion is able to place the user in a virtual environment that enables the user to naturally perceive and interact with the virtual reality. Core consciousness and proto presence are then simultaneously generated. It is important to note that system immersion alone, will not always be significant enough to generate all three layers of presence simultaneously, as it does not comprise content that is emotionally or intellectually significant enough to generate extended consciousness (Riva *et al*. 2004:219). Both narrative immersion and challenge-based immersion generate extended consciousness through the user's mentally absorbing the unfolding narrative or encountering obstacles within a virtual environment (Riva *et al*. 2004:211). Narrative immersion becomes crucial in obtaining optimal presence. In order for narrative

[79] Kinesthesia, also known as proprioception, is the position of the body in space.
[80] Extended presence gives rise to proto consciousness and can also help the self-distinguish between self and non-self (Riva *et al*. 2004:211).
[81] Focus can also be used in order to identify the self from the non-self.

immersion to positively influence the sensation of presence, the user will have to act out a character represented in the virtual reality. According to Riva *et al*. (2004:214), maximal presence resembles the notion of flow, where focused attention, awareness and merging of actions takes place.

System immersion, narrative immersion and challenge-based immersion are needed in order to integrate all three of these layers of presence and thus experience the highest level of presence. As system immersion allows interaction with the virtual environment, proto presence is obtained through the user's interaction with the virtual environment that separates the self from the non-self. Narrative immersion enables the user to generate extended consciousness through further expanding and exploring the narrative Challenge-based immersion enables core consciousness through the user's performing a task, thereby facilitating the sensation of experience that generates presence.

Immersion takes place when the user's proto presence, core consciousness and extended consciousness integrates at the same time, and they experience the highest level of presence. This can either be achieved through direct sensor stimulation or augmentation of these senses, created through technology that places emphasis on the bodily here and now (Klich & Scheer 2012:127). Placing emphasis on the bodily here and now generates immersion as audience members' sense of presence are heightened.

When creating a medial, immersive theatre production, all three layers of presence (proto presence, core consciousness and extended consciousness) should be integrated, thus generating the highest level of presence in the production. Proto presence and core consciousness will be generated through placing the audience member in the virtual environment and allowing them to perceive it as the 'real' and interacting with the space. Placing a live character in the virtual environment, also enables core consciousness as the live character interacts with the audience member in the virtual environment within the fictional world. This allows the audience member to preserve the virtual environment as the real and interact with it on a core consciousness level. Events that unfold in the

virtual environment and in an extended narrative (that takes place on transmedia storytelling extensions, discussed in Chapter Four and Five) of the production, will also generate present among audience members, on an extended consciousness level. Thus, all three levels of presence are integrated and generate the highest level of presence.

2.1.3.1.4 Immersion and the illusion of place and plausibility

The fourth perspective on presence enables users to respond in the same way to virtual stimuli, as they would to unmediated stimuli (Slater, Lotto, Arnold & Sánchez-Vives 2009:139). The user's response of unconscious physiological behaviours to conscious behaviour and cognitive processing of being present, should all be on the same level (Sanchez-Vives & Slater 2005:338). The sensation of presence occurs when the user has the same subjective experience and realistic response towards the virtual stimuli, as in unmediated stimuli. Slater (2009:3550) further asserts that it is not about being in the virtual environment but about the realistic response of the user towards the virtual stimuli. According to Slater (2009:3551), this "response-as-if-real" can be described as two perceptual illusions that take place simultaneously. Place illusion refers to the audience member's experience of being present in the fictional world, despite knowing that they are not physically present within the fictional space. Place illusion makes use of sensorimotor contingencies that enable the users to focus on different objects by being able to walk around the space and engage with the various objects within the space by picking them up or inspecting them (Slater 2009:3550). Secondly, plausibility illusion is the illusion that the event unfolding is real, even though one knows it is not[82]. The combination of immersion, virtual bodies, places, and plausibility illusion creates a framework of how virtual environments can transform an experience of space (Slater 2009:3551).

Plausibility illusions take place when the user perceives the virtual environment and the unfolding events as 'reality' (Slater 2003:3553). The plausibility of illusion in a/the virtual

[82] Slater's (2009:3549) terminology place and plausibility illusion resemble Lombard's (1997) two forms of realism, social and perceptual realism.

environment depends on three conditions. First, the user's actions should correlate with the actions of the characters in the virtual environment; for example; if a user shows aggression towards characters present in the virtual environment, they should step away (Slater 2003:3553). Second, the environment should be responsive to the user. For example, characters should interact with the user, even though they have not approached them. Lastly, the environment and events should be credible through reflecting true-life experience (Slater 2003:3553).

Place illusion can be created through system immersion; a virtual environment that enables users to use natural sensorimotor contingencies; for example, the ability to walk to objects, turn one's head, or pick-up objects in order to explore the virtual reality (Slater 2009:3553)[83]. Although system immersion is a system that can be objectively measured, the user's subjective experience is needed to generate presence. Hence, two users entering the same virtual environment can experience different levels of immersion. This occurs as some users allow themselves to participate and explore the virtual environment in more depth, through investigating objects and testing the limits of the system. It can also be argued that perceptual immersion, sensory immersion, and place illusion is thus the subjective sensation of being enveloped and included in a virtual environment (Slater 2003:3553).

A lower order of system immersion will also increase presence among users, as it is more simplistic, straightforward and natural. This enables users to rely on natural gestures that generate a stronger illusion of place and exhibit emotional responses similar to those experienced in real life (Nilsson *et al*. 2016:128). As this form of presence relies on the user's experience with system immersion, narrative immersion has no effect on the enhancement of presence.

[83] According to Slater (2009:3552), the definition of place illusion overlaps with perceptual immersion and sensory immersion and can be seen as the same.

In order for users to be present in a virtual environment, the user should have the same subject experience and realistic response to the virtual stimuli as in unmediated stimuli. The virtual environment should thus resemble reality. This can be achieved through lower system immersion, which seems closer to reality. System immersion should allow the user to interact with the environment as one would in reality; for example, walking around the space and being able to interact with the environment. This will generate a subjective experience that will enhance presence. Plausibility illusion is also important when enhancing presence, and resembles reality. Characters should be able to interact with the user and the narrative should resemble real-life situations. When both space illusion and plausibility illusion take place at the same time, the highest level of presence will be felt.

Immersion enables the user to feel present in the virtual environment and perceives it as 'real'. The user is immersed when they are able to interact with the virtual environment as one would in real life (for example, walking around in the virtual environment and interacting with objects therein), as well as when the narrative resembles real-life situations.

When creating a medial immersive theatre production, space illusion and plausibility illusion should be used to create a virtual environment that allow the audience member to perceive it as the 'real' and be immersed. This can be achieved through allowing the audience member to walk around in the virtual environment and interact with the live characters and virtual characters and the content of the narrative. The interaction with transmedia storytelling will likely generate space illusion and plausibility illusion[84].

In conclusion, different categories of immersion can be used in order to immerse users in a fictional world and enable them to feel present. This can be achieved through incorporating elements of system immersion, narrative immersion or challenge-based

[84] Space illusion and plausibility illusion within transmedia storytelling will be discussed in more depth later on in Chapter Five.

immersion. The user's subjective interaction within the virtual environment is important to generate immersion and allow the user to feel present. Engaging and forming a relationship with the characters, narrative and spaces within the fictional world, will also generate immersion, as this engagement enables the user to perceive the fictional world as 'real' and therefore be present. Presence and immersion are interconnected. Moreover, when a user experiences the sensation of presence, they are fully immersed. The next section will define immersion in theatre and how audience members can experience presence in immersive theatre.

2.2 Immersive theatre

Theatre is a site of immersion "due to its ability to create a detailed and convincing representation of a fictional reality" (Mureșan 2019:194). This representation fosters the suspension of the audience's disbelief so that spectators "forget about their immediate physical location and enter into another through an active imaginary process" (Mureșan 2019:194). Mureșan continues that suspension of disbelief can be limiting, especially as contemporary theatre increasingly experiments with the sensory and physical aspects of theatre and performance. These aspects are vital in engaging audiences cognitively and viscerally[85]. The elements of experience, interaction, participation and immersion are central to immersive theatre (Belo & Gustavo 2016:143).

Immersive theatre can be seen as a mode of experimental theatre (Machon 2016:35). A definition of immersive theatre is "being submerged in an alternative medium" (Machon 2013:22) within which all one's senses are manipulated and engaged, while being involved with activities within that medium (Machon 2013:22). Immersion entered the context of theatre in the mid-2000s and broadly refers to theatre and performance that aim to capture the audience viscerally and in an embodied manner, in an intense and sensory world (Mureșan 2019:195). Immersive theatre can be traced back to nineteenth-century theatre, where murder mystery performances were performed outside the theatre

[85] As mentioned before, visceral or sensory experience refers to the stimulation of all senses such as hearing, smelling, seeing, touching, tasting, and feeling (Machon 2013:68).

space in different locations, permitting audience members to dine and watch the performance whilst being caught up in the actions (Green 2017:1). Audience participation was also encouraged through "call and response" elements used in theatre performances, where actors would ask or call out something to the audience and the audience would then respond to the actors (Green 2017:1).

In contemporary theatre there is often less of an imaginary world into which audiences can "project themselves", and more of a focus on the audience's "immediate reality and their physical presence in space" (Mureșan 2019:194). Immersive theatre often focuses specifically on the theatre medium's status as a hypermedium[86]. This incorporates elements from other disciplines, such as "architecture, video art, installation, film, dance, animation, circus, video games", and musical compositions. These elements play the role of an "interface" that facilitates "intermediation" between the real and the fictional worlds (Mureșan 2019:202)[87]. In this way, immersive theatre creates a "deep involvement", by "surrounding" participants in a bodily and sensory manner (Belo & Gustavo 2016:143).

Immersive theatre physically places the audience within a fictional world or virtual reality, thereby allowing them to become participants, thus forming part of the fictional world or virtual reality. This continues to drive the idea that everything within the space becomes 'the stage' and that there is generally no separation between the stage and auditorium, as in conventional theatre (White 2012:221)[88]. Similarly, Schechner's (1973:1994) notion of environmental theatre is a theatre movement that "heightens the audience's awareness of theatre by eliminating the distinction between the audience's and the actors' space" (Schechner 1973:1994). Schechner's (1960) environmental theatre created a space that

[86] Hypermedium can be seen as an extension of hypertext. It is a medium that is capable of incorporating other mediums without losing its original identity. It creates a space where two or more media or mediums can co-exist together, where the hypermedium provides the space for them to exist in (Meinecke 2003:1).
[87] Theater as a hypermedium and the interrelations of different media that creates mixed realities will be discussed in more depth in Chapter Three.
[88] As mentioned in Chapter One, the fictional world is different from a virtual reality. Although both the fictional world and virtual reality represents the world in a narrative, game or production, the fictional world does not take place in a virtual environment or mediatised game that consists of virtual stimuli whereas the virtual reality does.

allows audience members to enter a performance space and become part of that fictional world, through inviting and even expecting audience members to become participants. Environmental theatre creates a space where audience members have encounters with space, objects, actors or even fellow audience members, and their audience participation is often required (Schechner 1968:48). This allows audience members to become "scene watchers and scene makers" (Schechner 1968:48).

In immersive theatre, audience members are invited into the performance space and become part of the fictional world; the performance space should be able to immerse audience members and allow them to preserve the fictional world as 'real' or 'reality'.

2.2.1 Space in immersive theatre

Immersive theatre focuses on "the movement in space as a form of active involvement" (Mureșan 2019:200). It also emphasises aspects of an existing space through scenography, the architecture or the dimensions and the design of the performance site (Mureșan 2019:200)[89]. Scenography is used to create spaces/environments that enhance audience engagement and generate immersion[90]. Immersion is generated as scenography encourages audience engagement through design-led approaches in which spatial function and scenography elements (for example light, space, sound and objects) are specifically placed in the space/environment (Shearing 2015:13).

This specific placement of materials or objects in the space/environment permits audience members to engage with the objects or materials, which enable both bodily sensory and cognitive stimulation (Shearing 2015:8). This multisensory participation (being able to engage with objects and materials on a sensory and cognitive level),

[89] Scenography according to Shearing (2015:14) is the aesthetics and design elements used in a performance for example the setting, spaces, costumes, lighting, sound and objects/decor. It is the operation and manipulation of design elements used in performances that creates temporal, rhythmic and architectonic structures of design (McKinney & Butterworth 2009:4). It is used to create a specific atmosphere, express mood and to create creative expressions.
[90] Spatial functions can be referred to as specific spatial data that can be used in order to determine the relation between geometries and event create new geometries (Shearing 2015:14).

provides context to performative actions that inspire audience members to act and form connections within the space/environment (Lehmann 2006:94)[91]. Thus, all production elements in the space/environment form part of the performance and are seen as 'live' (Shearing 2015:7)[92].

An immersive space can be created in site-specific theatre, site-sympathetic theatre, one-on-one theatre, audio walks, installation artwork and constructed fictional worlds, inside virtual reality VR cave system or black box studios (Havie 2013:1)[93]. All of these theatre notions generate spatial immersion, as it allows the audience member to into the fictional world and become part of it. Site-specific performances take place in any given space outside the theatre; for example, a park, house, hospital, or classroom and allows audience members to enter it (Pearson & Shanks 2001:16). Site-specific performances overtly use the properties, qualities, and meanings found at/on a given site, be it a landscape, a city, a building, or a room (Pearson & Shanks 2001:16). Audience members are able to immerse in site-specific performance, as they are able to enter the space and form a relationship with the space, thus becoming part of the fictional world and perceive it as 'real' or 'the reality'.

The notion of Site-sympathetic performances, also take place in found spaces; for example, parks, old buildings, or houses, but do not add any historical contexts to the narrative, as there is no interwoven connection between the location and the performance. The location acts only as a space that creates an atmosphere for the performance and contributes to the aesthetic of the fictional world. An example of a site-sympathetic production, is *The Lion King,* which was moved out of the theatre and into a different setting that created the feeling of being in the Sahara Desert (Green 2017:1).

[91] In this study, space refers to the place the performance takes place, without any advance technological devices that recreates a virtual reality. Environments are virtual realities that are created through technological devices for example black box studios, virtual realities (VR) cave systems or projections that create a virtual realities (Havie 2013:1).
[92] Live refers to all elements, actors, audience members and objects becoming part of the performance or fictional word.
[93] Immersive theatre can take place in many different spaces, from virtual environments that creates virtual realities to spaces that incorporates little to no technological devises. The use of virtual environment for example VR cave system and black box studios will be explained later on in this study in section 2.2.1.4.

Audience members are immersed in site-sympathetic performances as they can enter the space and form a relationship with the space, thereby becoming part of the fictional world and perceiving it as 'real' or 'the reality'.

One-on-one theatre is a type of theatre where only one audience member watches a performance performed by a single actor in character. The performance normally takes place outside the theatre space in more intimate spaces; for example, a bedroom, bathroom, or kitchen where the character engages one-on-one with the audience member, allowing them to become a participant (Coetzee 2016:1). Audience members are immersed as they are able to enter the space and fictional world, as well as engaging with the character, thus becoming part of the fictional world and perceiving it as 'reality'[94].

Audio walk performances are performances that permit audience members to walk around a specific space with headsets. These types of performances move the performance outside the theatre space and leave audience members to navigate through the performance space, themselves (Shearing 2015:8). The headsets create sensory experiences that are able to transport audience members instantly to different environments, as the scenography permits the possibility of many different spatial shifts and the layering of experiences (Shearing 2015:8). The headsets will either provide historical information regarding a specific space and object within the space or provide instructions on where to move or with what to interact (Shearing 2015:8). It can also permit audience members to roam around in the space whilst listening to specifically composed music or sounds that evoke specific emotions among audience members. Spatial immersion is generated through allowing the audience member to enter space, form a connection with it, and perceive it as 'real' or 'the reality'. Immersion is also generated through allowing the user to listen to music or instructions in a space that creates mixed realities, thus heightening the audience members' scene of presence and generating immersion[95].

[94] Being able to interact with the character on such an intimate level also generates emotional immersion as the audience member is able to form a relationship with the character (see section 2.2.1.2).
[95] The notion of mixed realities will be discussed in more depth in Chapter Three.

Audience members are immersed in the space, as they are able to decide on what to focus or interact with, thus forming relations with the space and perceiving the space as 'real' or 'the reality'. Alston (2013:128) identifies immersive theatre as theatre that is "broadly premised on the production of experiences" that foreground sensory engagement and "surrounds audiences within an aesthetic space in which they are frequently, but not always, free to move and/or participate". Audience members are not bound to observe from only one site/seat and may remain physically mobile, inhabiting "multiple viewing perspectives in what may well be several viewing positions" (Alston 2013:132). They may also be led from location to location by the actor in character or left to roam around between spaces. This encourages embodied modes of engagement through journeying, fostering intimacy and activating attentive listening strategies (Shearing 2015:8).

Although these theatre notions (site-specific theatre, site-sympathetic theatre, one-on-one theatre and audio walks) generate spatial immersion, a higher level of immersion can be achieved through including scenography to incorporate different forms of immersion, such as temporal immersion and challenge-based immersion. I discuss the incorporation of temporal immersion and challenge-based immersion below.

2.2.1.1 Audience members' interaction with the fictional world

Wiseman, Van der Linden, Spiers, Oshodi (2017:4) explain that in immersive theatre, there is a distinction between being an audience member and being an active participant in the performance. Audience members "spectate"; they watch the scene happen before their eyes, but an active participant takes part in the performance in some way and even has some control over, or choice in, control of the performance. This means that audiences can often "change what they see and how they respond to it" (Van der Linden, Spiers & Oshodi 2017:4).

Audience members are invited and encouraged to explore, as well as interact with the performance space/environment and sometimes even through more vigorous participation; for example, touching (Harvie 2013:1). Wilkie (2012:208) refers to this as mobility, enabling audience members to interact with a space/environment that encourages bodily modes of spectatorship, which permit visceral, sensory, and participatory engagement among audience members. Furthermore, interacting with the performance space/environment enables audience members to explore the performance space, creating moments that are of personal interest to individual audience members (Wiseman *et al*. 2017:3).

An example of immersive theatre is Felix Barrett's (New York base) contemporary theatre company, *Punchdrunk*. It is seen as the defining point of immersive theatre by many theorists and all leading theatre articles (Green 2017:2). One of their most popular productions, *Sleep No More* (2003) is a retelling of Shakespeare's *Macbeth*. The performance takes place in an abandoned warehouse transformed into a 1930s hotel. Audience members are able to walk around the space and follow an actor in character of their choice (Green 2017:3). They are allowed to wander around in Macduff's room and open his drawers in the search for clues. Scenography is used to generate temporal immersion, as placing clues and objects strategically within the space, generates a desire among audience members to forget about reality and immerse in the fictional world, through wanting to know what is going to happen next and how events will unfold. Audience members are even allowed to touch, smell or taste objects in the performance, if they want to (Judge 2019:1). Scenography is also used to generate visceral and sensory engagement, through strategically placing objects or elements within the space[96]. In *Sleep No More (2003),* an example of this is where scenography is used to make a room feel like a graveyard, through making the air in the room cold, dry and smelling like dirt, which generates visceral engagement.

According to Machon (2013:68), immersive theatre that permits audience members to touch, smell or taste objects can be referred to as visceral theatre or (syn)aesthetics. A

[96] I did not personally attend the performance and only drew on literature to discuss the performance.

multisensory experience that stimulates audience members' senses through: hearing, smelling, seeing, touching, tasting, or feeling. (Syn)aesthetics, according to Machon (2009:14), connects bodily sensory stimulations and cognitive modes of engagement among audience members, allowing the sensation of feeling and meaning making. Visceral engagement and engaging with objects, also allow a scene of presence among audience members. A three-pole mode of presences are generated among audience members where their imagination, memory and sensory responses are fused together, creating change in the somatic process that blurs the line between what is real and not. This leaves the audience members feeling immersed and present, allowing audience members to interact with objects and spaces as one would in real life; for example, touching, smelling and tasting also creates presence among audience members through the illusion of place and plausibility.

Immersive theatre does not only immerse audience members through permitting them to engage with spaces and objects through touching, smelling and tasting (spatial immersion and temporal immersion), but also through performing tasks and overcoming challenges (challenge-based immersion). According to Wicker (2017:1), immersive theatre has also started incorporating elements of live adventure gaming and puzzle solving. Live adventure gaming also known as "escape rooms" occurs when teams of three to five people have fifty to sixty minutes to solve a puzzle that is placed in an immersive space (Wicker 2017:1). These immersive spaces are rooms that are dressed according to a specific theme or fictional world. Scenography is used to strategically place objects and elements within the space, in order to allow audience members to engage and interact with them. Players have to interact with the setting through finding clues and moving or turning objects around in order to solve the puzzle and free themselves from the room (Wicker 2017:1). Challenge-based immersion is generated through audience members being able to interact with the fictional world and form part of it. Audience members place all their focus and attention on the task at hand, through forming strategies in order to perform tasks and overcome obstacles, thus generating strategical immersion.

Theatre director, Ford later started combining elements of player-led and game- solving elements of escape rooms with actors and narrative, to create higher levels of immersion in immersive theatre performances. The game-solving element used in Ford's immersive theatre, generates challenge-based immersion and allows audience members to engage with the fictional world through performing tasks and overcoming challenges (Wicker 2017:1). According to Wang (2019:40) these choice(s) which audience members are able to make and engage with, creates immersion, as it places audience members in an equal position as the actors and enables a psychological basis of being able to choose with what to interact. Ford's performances involve challenge-based immersion (allowing the audience members to perform tasks and overcome challenges) and narrative immersion (placing the audience members within a fictional world where they are able to immerse through spatial immersion, temporal immersion and emotional immersion).

Permitting audience members to enter and engage with a spaces objects and challenges, enables spatial immersion, temporal immersion emotional and challenge-based immersion (Green 2017:1). As audience members form relations towards the spaces or objects in the fictional world, they become included and present in the fictional world and perceive it as 'real' or 'the reality'. Engaging with the fictional world as one would in real life, and performing tasks or overcoming obstacles, also enables audience members to feel included and present in the fictional world, which makes the fictional world seem 'real'. As immersive theatre encourages audience members to engage with the performance and interact with objects, spaces and characters, audience members become participants and collaborators (Green 2017:1). Audience engagement with characters and other audience members will now be discussed.

2.2.1.2 Audience members' interactions with characters

Audience members in immersive theatre are not only scene-watchers but also become scene-makers (Shearing 2015:21). Adrian Howells (2008) further states that in immersive theatre, audience-participants become co-authors through using their bodies as a source and site of sensual material that forms narrative (cited in Machon 2013:150). This is

achieved through immersive spaces that stimulate a full range of sensorium in and across perceptual, emotional, and intuitive dimensions of the audience's experiences and interpretations, which allow for redistributive agency that moves an audience member from the roll of a passive spectator to a co-collaborator or co-experimenter (Machon 2013:152). In addition, audiences share with performers a "special complicity" (Fried cited in Alston 2013:129), and audience members are "inescapably implicated" (Alston 2013:130) in a situation or narrative, compelling them to participate. Furthermore, participating audiences are often constructed as something other than audiences within the theatre event, not just by the offer from actors to join them on whatever "journey" the performance offers, but also through the gaze of other spectators (Alston 2013:129)[97]. Immersive theatre is not a performance text that audience members read but instead feel, as immersive theatre permits audience members to encounter objects, sound, lights, and characters.

There is often no division between the characters and audience members in immersive theatre and audience members are placed alongside the characters in the fictional world (Wang 2019:40)[98]. This allows the breaking of the fourth wall that permits audience members to be 'inside' the performance space, acknowledging the performers and interacting with the actors. Breaking the fourth wall permits audience members to be more emotionally stimulated, as the fourth wall creates a distance between the audience and actor (Wang 2019:40). The fourth wall allows audience members to become objective and to think rationally about the situation, instead of forming emotional connections with the characters (Wang 2019:40). Breaking the fourth wall also enables audience members to become part of the fictional world and through interacting with the characters, become active participants.

[97] Although Alston's (2013:128) theory identifies the term entrepreneurial participants and is focused on how there is shared values between neoliberal ethos and audience participants, I will only incorporate some elements of his study as a vast majority of his literature about participants still applies to my study.
[98] Although a characteristic of immersive theatre according to Green (2017:2) can be breaking the fourth-wall and allowing characters to interact with audience members within the fictional world. It is important to note that not all immersive theatre performances enables interaction between characters and audience members within the performance space and it will depend on the kind of production.

Audience members are able to follow characters around in the fictional world and even interact with them (Judge 2019:1). In *Sleep No More* (2013) audience members are given white masks to wear upon arrival and are able to follow and interact with twenty-five actors spread out across five floors. Audience members can roam around the space and observe characters perform in silent group settings, dancing choreographed dances or solitary scenes. Audience members can come as close to the characters as they wish, through either following, touching, or interacting with them. Characters might also make eye contact with audience members and lead them into private encounters or discussions, tell them stories, offer quotations or give them tasks to complete (Wang 2019:41).

In one of the rooms, a nurse invites two audience members to enter the ward and close the door. As the doctor approaches the audience members, the doctor puts a white sick-suit on an audience member and walks them to the bed, allowing them to become a character in the play (Wang 2019:41). These interactions with characters generate emotional immersion, where audience members form physical relations and emotional connections with the characters in the fictional world. This can either be through engaging with the characters and forming relations with them, which enables audience members to feel part of the fictional world or through developing empathy towards them.

Challenge-based immersion can also take place when characters interact with audience members; this can be either through responding only to the character (tactical immersion) or through performing tasks that characters set the audience to do (strategic immersion) (Ryan 2008:9. Audience members have to either interact with characters or perform tasks within the fictional world, thus minimising the interaction with reality and become immersed in the fictional world. Through characters interacting with audience members as one would in real life, also generates a scene of presence. Illusion of place and plausibility is generated among audience members as the interactions between audience members and characters resembles the same interactions one would have in real life (Slater 2009:3550). This allows the audience members to immerse in the fictional world, to feel present in it. Plot in immersive theatre will be discussed below.

2.2.1.3 Plot in immersive theatre

Immersive theatre frequently uses “spatial” narratives rather than linear narratives that allow the audience to choose whether they want to become “speca(c)tors” or remain “distanced theatre-goers” (Wiseman *et al*. 2017:3). Spatial narrative enables storytelling through architecture, narrative is generated among audience members through moving through/around buildings or objects and gathering information within the given space. Immersive theatre performance does not always follow a linear plot, and may follow multiple story lines (Judge 2019:1). Heim (1998) describes this as a “web-like structure”, where participants form an active relationship with different objects, actors, or other audience members in order to construct narrative (cited in Rose 2015:4).

According to Mureșan (2019:193) immersive theatre seeks interaction with audiences in a way that makes the audience an active part of the theatre or performance work and often requires them to move in space. Immersive theatre offers opportunities for audience members to make choices and even influence the development of plot or narrative to a varying extent. The internal and external worlds of the characters manifest through “corporeal expressiveness”, in/through objects, scenographic and music/sound elements, so that the work creates a “sensorial poetics” that foregrounds the use of visuality, voice, gesture, and kinesthetics (Mureșan 2019:193). The structure of immersive theatre/performance works are often episodic and fragmented, creating “networks of meanings” that are not always directly related to the narrative or the “logic of the original textual support” (Mureșan 2019:193). Often, audience members need to individually assemble these networks of meanings later, to form a narrative.

This is also seen in *Sleep No More* (2013) where audience members are able to choose what they want to focus on or interact with, in order to form a narrative. Narrative is created through participants making links and connections between objects, spaces, situations and characters (Lehmann 2006:85). This spatial engagement provides audience members with authority over their own bodily position and to move through

space, thus allowing immersion. Heim asserts that it is these encounters that make the performance seem more 'real' and cause audience members to feel immersed (cited in Rose 2015:4). Immersion comes with the feeling of being in control and permits audience members to feel as if their input into the live production may even impact the outcome of the narrative.

Plot in immersive theatre also creates immersion through narrative immersion and its sub-categories (spatial immersion, temporal immersion and emotional immersion), as audience members are able to explore and form connections with spaces within the fictional world. Audience members feel included in the fictional world and form emotional connections with characters, objects, and spaces within this world (Ryan 2008:9). It also creates a desire among audience members to further explore the fictional world to find out what is going to happen next. Challenge-based immersion can also be generated through allowing audience members to search for clues, performing tasks or overcoming obstacles and challenges. These immersive activities permit the audience members to forget about reality and devote all their attention towards the fictional world, thus becoming immersed in it. Presence is also generated among audience members through the place and plausibility illusion that allow audience members to enter a fictional world that represents reality (Slater 2009:3550). Encounters with objects and characters within the fictional space enables audience members to feel as if the fictional world is real and that they are present in it. Advanced technology can also be used to create fictional worlds that represent reality. The use of technology in immersive theatre will be discussed below.

2.2.1.4. Liveness in immersive theatre

A live performance according to Auslander (2008:40), is historically defined by our understanding of what live performances are and what we perceive as liveness. He adds that with the development of new technology, liveness must adapt. Liveness involves both the "physical co-presence of performers and audience" and the "temporal simultaneity of production and reception" (Auslander 2008:61). Thus, the events unfold in a specific time and space, with the audience members also physically present at the same time and

space (2008:3). In terms of theatre, it also requires a fictional context with both performers and audience being aware of the fiction - temporarily agreeing to accept the fiction. As live performances unfold in the physical present time, the audience experiences it for the first time (Bentley 1998:19). Live performance has often been interpreted as the binary opposite of mediatised events, as live performances are not pre-recorded and are seen as 'real' as they take place in the present (Auslander 2008:8).

Auslander (cited in Malloy 1999:19) further states that a live performance is seen to have liveness:

> At the heart of the theatre experience, then, is the performer-audience relationship: the immediate, personal exchange; the chemistry and magic which gives theatre its special quality.

According to the above statement, live performance has an immediacy that connects the audience members and the performer, who creates liveness. Liveness is created through the energy and activated viscerality between the performer and audience members as an event unfolds. This energy, according to Bundy (2012:18), can be seen as the presence of comfort or discomfort felt amongst audience members when watching a live performance. When audience members viscerally experience emotion felt by the characters and feel empathy toward them (Auslander 2008:9)[99], this empathy creates the perception of 'realness and an intensity of engagement (Bundy 2012:18)[100]. According to Auslander (2008:3), this energy is visible only when the giver and receiver is physically present at the same place and time. Thus, live performance rooted in material presence, has been tied to the present, presence/absence, embodiment, and corporeality, as mediatized practices have been tied to reproducibility, documentation, and disembodiment (Coetzee 2019:147).

[99] The notion of embodiment, according to Maclachlan (2004:2), is not only accomplished through the physical embodiment of a character but can also be achieved in an abstract manner. Embodiment can be seen as subjective because it reflects the feelings and emotions of one's inner self or the empty felt for the character. This subjective notion includes sensations felt within the body (Maclachlan 2004:2). These abstract ideas are a reflection of one's emotions and inner self.
[100] This 'realness' refers to the fact that the performance unfolds in the present unlike a pre-recorded event that has already unfolded.

This has led to the debate concerning live theatre and mediatised performance between Peggy Phelan (1993) and Phillip Auslander (1999). While Phelan (1993) asserts the authenticity of live performance, arguing that the audience and performer should be temporally and spatially co-present with one another and that a live performance should not be reproducible. Auslander (2008:44) attempts to undermine this perspective through his critique of "liveness", arguing that liveness exists as a result of mediatisation (cited in Auslander (2008:44). In the contemporary world that increasingly becomes more dependent on technology, the line between live and mediatised performance becomes harder to identify. The next section (2.2.1.4) and the chapters to follow further demonstrate the problematics of the live-mediatised binary.

2.2.1.5 Use of technology in immersive theatre

Using technology in theatre allows performers to augment their performances in many ways; for example, by interacting with visual displays on stage, playing with presence and in setting up multiple stages (Wiseman *et al*. 2017:5). Technology can also be used to "play" with the audience's senses in performances (Wiseman *et al*. 2017:5).

According to Ryan Green (2017:21) during the twentieth century, immersive theatre started incorporating more elements of technology into productions. As technology develops, it creates new ways in which audience members can actively participate in performances. More virtual reality technology for example VR cave systems, VR headsets, 3-D projectors and sensory suits are used in theatre to create virtual performance spaces for audience members to participate and in which to immerse themselves. These technological devices can either be placed in the performance space, in order to enhance immersion or be virtual environments that audience members enter, that create sensory experiences (Shearing 2015:15). These performances can mobilise the audience members' entire body into multisensory participants.

Baugh (2014:60) asserts that technology plays an important role in theatre; that theatre is not just focused on the living body but also on the sensory experience among audience members created through technology. Klich and Edward (2012:17) explore mediatised performances and state that the use of media in performances can create sensory and cognitive engagement among audience members. It is important to note that not all immersive performances incorporate distinct fictional worlds, and some performances work within an immersive context that utilises technology to enhance this sensory experience, for example through the use of headphones (Richard 2015:5).

Goodnight Sleep Tight (2017) created by the production company ZU-UK, is an immersive performance where audience members were provided with a nightgown, a cup of hot chocolate and a VR headset upon arrival. Audience members wore the VR headset throughout the performance and were put to bed by actors in character (Green 2017:11). The VR headset provided a 360-degree video that portrayed the world through a child's eyes. System immersion is used to immerse audience members, by allowing them to enter a virtual reality and providing them with enough resources so that the virtual reality seems 'real' (Slater 2003:3). The use of narrative immersion permits audience members to be immersed on a diegetic level through connecting to the narrative, characters and unfolding events presented inside the virtual environment (Adams & Rollings 2006:110). System immersion enables audience members to be immersed and present within the virtual reality and not shift between the virtual reality and the physical reality.

Place and plausibility illusion allow audience members to be present by providing them with an actual nightgown, hot chocolate and bed with which to interact. The actor's (in character) interaction with audience members also represents the routine a parent will follow in reality, when putting a child to bed. The representation of place and plausibility illusion creates focus of attention, locus of attention and sensus of attention among audience members, as they are able to interact and respond to the virtual reality as one would in reality (Slater 2009:3550). Thus, they feel immersed in the virtual reality and perceive it as 'real'. It can also be argued that drinking actual hot chocolate and putting on an actual nightgown within a virtual reality, heighten the audience's scene of presence,

as it generates the three-pole mode of presence. Interacting with actual objects in a virtual reality creates a mixed reality between the real and virtual that enables audience members to shift between the physical space, mental imagery of space and virtual space that heighten the represented reality.

Another example of the incorporation of technology in immersive theatre is Cardiff and George Bures Miller's performance *Her long black hair* (2004), where audience members walked round a pathway in New York City with headphones on and a pack of photographs. Audience members had to constantly compare the fictional images with the physical spaces. The headphones also created multiple spatial shifts and layering, as audience members were confronted with the recorded sounds. For example, the narration, side effects or fictional cityscapes generated from the headphones were combined with the actual sounds present in the physical city. This type of performance creates immersion through audience members being present through the three-pole mode of presence. Audience members are able to shift between the physical space, mental imagery of space and virtual space at the same time that heighten the represented reality and allow audience members to immerse in that represented space and be present. According to Benedetto (2010:157), this constant shift between spaces permits audience members to live in the moment, through paying attention to every detail they see and hear and having an awareness of their senses.

Immersion is also created through audience members being present through the three layers of bio-cultural mechanisms that create new modes of embodiment and interpretation (Waterworth and Waterworth 2001:12). Audience members are immersed when their proto presence, core consciousness and extended consciousness integrates at the same time through direct sensor stimulation or through the augmentation of technology that places emphasis on the bodily here and now. Core consciousness is generated through the interaction with technology in the here and now; extended consciousness is generated through creating mental images of places, as well as narrative and being surrounded in this virtual environment that stimulates one's core conscious and extended consciousness, which in turn, generates proto presence. When

all three of these layers are present at the same time, immersion among audience members is enhanced.

Thus, immersion can be generated through placing the audience within a virtual environment that allows them to be fully immersed within that virtual reality and be present. With reference to the two examples above, immersion can also be generated through a shift between different spaces (physical space, virtual space and mental image space) and different layers of consciousness (core conscious, proto presence and extended consciousness) within the audience member. This shift in spaces and consciousness is generated through placing elements of system immersion within a theatre space, in order to create an intermedial space that generates mixed realities. This mixed reality enables audience members to question their reality, thus creating a heightened reality that immerses them. This will be discussed in more depth in Chapter Three when exploring intermediality[101].

2.3 Conclusion

Based on the information discussed in this section, it can be concluded that immersion can be divided into system immersion, narrative immersion and challenge-based immersion. All three views of immersion can be used to create a performance space/environment that immerses audience members or users into a different fictional world or virtual reality. Based on the subjective experience, the audience members or users, can immerse on different levels. When audience members or users are immersed within a space/environment through system immersion, narrative immersion or challenge-based immersion, they are present in that space/environment and perceive it as 'real' or 'the reality'. Different experiences of presence can be generated into a performance, such as three-pole mode of presence; three-dimensional mode of attention; three-layered, bio-cultural mechanism, and place and plausibility illusion. Immersion allows audience

[101] As discussed before, the medial immersive theatre production will make use of system immersion as it takes place in a VR cylinder. Through incorporating narrative immersion, challenge-based immersion and system immersion all three levels of presence will be generated throughout the production. Elements of immersive theatre will also be incorporated in the productions (see Chapter Five).

members or users to feel present, as they are able to perceive the fictional world or virtual environment as the 'real'. Therefore, it is suggested that presence is a characteristic of immersion.

As discussed in 2.1 (2.1.1– 2.1.3), immersive theatre is also able to immerse audience members through incorporating elements of system immersion, narrative immersion and challenge-based immersion. The sub-categories of narrative immersion: spatial immersion, temporal immersion and emotional immersion are incorporated to make the audience feel fully present within the fictional world. Audience members can immerse spatially by engaging with the space and becoming part of the fictional world. Emotional immersion is created by engaging with characters and forming an emotional connection with these characters, while temporal immersion is created by the audience member searching for clues to assist in creating the narrative. Challenge-based immersion, as discussed in 2.1.3, immerses audience members through permitting them to participate in challenges, as the audience direct all their attention toward the fictional world and becoming a part of it.

Based on the information discussed in this chapter, immersive theatre offers a notable capacity to generate presence among audience members. Elements of system immersion are incorporated into immersive theatre, to create intermedial relations that allow audience members to enter an intermedial space. The incorporation of system immersion into the theatre space is able to immerse audience members, as mixed realities are created that enable audience members to shift between realties. The notion of intermediality and how intermedial relations within the theatre space can immerse audience members will be discussed next in Chapter Three.

CHAPTER THREE: IMMERSION IN INTERMEDIAL THEATRE

This chapter firstly identifies the relationship between mediality and intermediality and then discusses how intermediality exists in the domain of mediality. I then explaining how intermediality exists in intermedial performances. In doing so, I focus on the notion of re-mediation[102] and mixed realities. The chapter will also discuss liveness and identify how liveness functions in intermedial performances[103]. Lastly, I address immersion as it pertains to intermedial theatre, with the aim of identifying how immersion exists within the context of intermedial theatre, and how intermediality can be used to generate immersion.

3.1 Mediality

The media products tend to form clusters that have been called many things; for example, “art forms” or “communicative forms” and have been grouped under the broad term “media (singular: medium)” (Bruhn 2016:4). Mediality refers to an approach in media studies that focuses on the medium of communication *per se* and not on what the medium does. This shift in focus enables one to examine the different media that are used for communication, by identifying how many interrelations the media contain (Bruhn 2016:6). In this context, interrelations can be seen as the different modialities of media that are able to come together to form a new mediality[104]. Mediality refers to a way of approaching media that emphasises the modes and means in which information is communicated (Bruhn 2016:4). Bruhn (2016:6), citing Bohn, Müller, and Ruppert, explains mediality as “that which mediates for and between humans a (meaningful) sign (or combination of signs) with the aid of suitable transmitters across temporal and/or spatial distances.”

[102] As mentioned in Chapter One, all media is constantly re-mediating into different forms, for example, a pictures- re-mediating in motion pictures re-mediating into an animation film (Kattenbelt 2008:60).
[103] As discussed in Chapter One, liveness according to Couldry (2004:6), can either be the experience or interaction with the media. It can be the crossing of boundaries, the hybridisation, intertextual, multimedial, intermedial and transmedial relationships between media with increasing self-referentiality. As this also creates immersion among audience members and liveness and immersion both allow audience members to feel present, it can be argued that liveness and immersion is in fact the same.
[104] Intermedial relations can be found within intermedial theatre (see 2.3).

Mediality can be seen as an abstract category, while medialities can be seen as "specified clusters of communicative forms" (Bruhn 2016:4).

Chapple and Kattenbelt (2006:11) offer a narrower focus in describing mediality, namely, as the incorporation and presence of digital media into analog media. For example, when media texts, such as a book or play incorporate any form of digital media, it becomes mediality. Mediality can therefore be seen as the co-relation of different media-forms. Kattenbelt (2008:3) further states that mediality is an umbrella term for intermediality, transmediality and multimediality (medialities). Although intermediality, transmediality and multimediality can function independently as three different perspectives on technology and communication used in media, they are able to operate together. In so doing, they describe different levels or aspects of the same discourse, as they intersect and can formulate some of the same entities (Muller 2010:21).

Mediality is thus the incorporation and co-relation of different media modalities, as mediality consists of many different media clusters that have transmediated analog media into new media. As mediality is the incorporation and co-relation of different media, it is also able to expose the different media relations within its sub-categories: intermediality, transmediality and multimediality. Intermediality will be discussed first.

Elleström (2020:5) identifies two perspectives in order to divide and distinguish intermedial relations between media; a synchronic perspective (which is how different modalities of media are analysed and compared with one another, through looking at the modalities of media) and a diachronic perspective (the transfer and transmediation from one media type to another media)[105]. This is because modalities are more focused on the

[105] Modalities is a term that Lars Elleström created in order to comprehend all types of media. It consists of the term "mode" which refers to a way to be or to do things as well as generate meaning. It is not used to establish media types but used to characterize all media expressions (Elleström 2010:15). Modalities divide media into four different categories; material modality (physical features of a medium), sensorial modality (experiencing media through our senses), spatiotemporal modality (perception of time in media) and semiotic modality (meaning that can convey from media) (Elleström 2010:15). The modalities can be seen as theoretically separate but are interrelated and dependent on one another. It is important to note that the notion of modalities will not be discussed in depth as the study is not focused on the modalities of media and at times only refer to modalities.

intermedial relations within a media. As this study is focused on identifying intermedia relations within performance, focus will rather be placed on the diachronic perspective and how transmediation (discussed later in this chapter), in the theatre space is used to create intermedial performances. The diagram below is a visual representation of the different forms of mediality that exist under the umbrella term of mediality. See diagram below.

Mediality

Intermediality

Intermediality is the relation between different media products, as well as the relationship among different media modalities (Ellestromöm 2017:2). Intermediality is about identifying the various relations between different modalities of media, recognising the interaction between the different modalities, and providing a new intermedial foundation for media (Muller

Transmediality

Transmediality refers to “translation” from one medium to another medium; when one medium changes its theoretical discourse, in order to transform into a different medium (Kattenbelt 2008:26). These translations focus on how the transfer and transformation of media characteristics into different media forms can be understood (Elleström & Salmose 2020:2). It aims to identify the temporal gap among different media products, modalities and traits. These can either be actual temporal gaps in terms of different times or genesis of media, or the gap in understanding the significance of a medium on the basis of previously known media (Elleström 2014:6).Transmediality can be divided into transmediation or media representation.

Multmediality

Multimediality exists when two or more digital mediums are fused together and create different sign systems; for example, words, images and sounds (Raessens 2001:52). Websites and computers are examples of multi-mediality as different mediums are fused together that create multiple sign systems (Kattenbelt 2008:22). These sign systems are interpreted differently by different people from different demographical backgrounds that formulate different ideologies to certain signs (Kattenbelt 2008:23).

Transmediation

Transmeditation is the representation of repeated media traits in a medium; for example a film’s narrative that represents that of a theatre production (Elleström 2014:16). Transmediation is about removing elements from a specific medium and reusing them in another medium in a different manner. Transmeditation is the first media type that is transformed and represented in the second type of media, for example, when one medium is also representing another medium, in order to create communication (Elleström ; Salmose 2020:6). This allows the medium (which represents media) to also become represented in itself. Transmediation does not only consist of the repetition of meditation (re-mediation) but also a similar sensory that is produced by another technical medium, in order to repeat the mediation (trans-mediation). Transmediation can be divided into re-mediation and trans-mediation (Elleström & Salmose 2020:6).

Media

Media representation is the representation of other media in a medium; for example, a film that includes a theatre performance (Elleström & Salmose 2020:8).

Re-mediation

Re-mediation takes place when techniques and social significances of an alalog media transmediates into new media, with some of the existing qualities of the alalog media that are still visible (Bolter & Grusin 1999:65).

Trans-mediation

Trans-mediation is a similar sensory structure that is produced by another technical medium in order to repeat mediation (Elleström & Salmose 2020:9).

Figure 2: Mediality as an umbrella term

3.2 Intermediality

The notion of intermediality is used in a number of different fields of study, which according to Muller (2010:17), leads to the term being used in diverse academic disciplines in the field of the humanities (Wolf 2011; Jones 2014; de Zepetnek 2013), the natural sciences (Bruhn 2020), and the social sciences (Endo 2017). According to (Rajewski 2005:50), in the arts and literature, phenomena such as sound art, filmic writing, the musicalisation of literature, film adaptations of literary works, visual poetry, illuminated manuscripts, opera, multimedia shows, installations, etc. have been described as intermedial. Intermediality has been used as an object of study, a method of study, a "theory of a category of objects" (Bruhn 2016), and the nature of the creative process. Bruhn (2016:13) asserts that the term intermediality is also used to denote "inter-aesthetic research" or "inter-studies". In this context, the aesthetics of studies, known an inter-aesthetic research or "inter-studies", refers to a broader aesthetic and technological field of investigation, rather than focusing on discipline-specific arts and in doing so, it opens up alternative aesthetic forms. These include amongst others, digital poetry, "non-aesthetic" medialities (advertising and political campaigns to name a few) and performance art (Bruhn 2016:13)[106].

On the whole, intermediality can be seen as the adaptation and combination of different media modalities and takes place when two or more media modalities come together and form a new mediality (Chapple & Kattenbelt 2006:11). This new mediality allows one to draw upon these different qualities of media and critically engage with the different relationships between these media modalities.

[106] Bruhn (2016:14) argues that intermediality is not the mix between autonomous medialities as all texts reflect a mixed constellation, instead, he refers to this as heteromediality and explains that blending is visible in all texts and that it should not be seen as a phenomenon. Bruhn (2016:14) further states that mixedness comes first and that the purity of all media is a result of active purification.

Intermediality is a dominant trend that occurred in art and media during the twentieth century[107]. Intermediality captures postmodern arts and media to some extent (Kattenbelt 2006:34)[108]. There are several points of overlap between intermediality and related terminologies, such as intertextuality[109], hybridity[110] and adaptation (Muller 2010:21)[111]. In Chapple and Kattenbelt's seminal book, *Intermediality in Theatre and Performance* (2006), the use of intermediality in theatre practice contributes specifically to contemporary theatre (2006:11)[112]. This contribution is visible with the incorporation of digital technology into theatre practice and the presence of digital media within a theatre production (Chapple & Kattenbelt 2006:11). Auslander's (2008:202) definition of intermediality is the use of digital technology in theatre, and the presence of other media modalities in theatre.

3.2.1 Properties of media in intermediality

[108] The discourse of intermediality has been applied in varied contexts and is ever expanding. For example, terms such as "plurimediality, crossmediality, infra-mediality, media-convergence, media-integration, media-fusion, hybridization" have been used in different disciplines and for many purposes. Further, scholars identify their understandings and uses of intermediality their particular conceptions of intermediality with labels such as "transformational, discursive, synthetic, formal, transmedial, ontological, or genealogical intermediality, primary and secondary intermediality" and "intermedial figuration" (Rajewsky 2005:44).

[109] Intertextuality is the interconnection between different modalities of literature that can have an effect on audience members' interpretation of the text. It acts as a literary device that communicates between different texts and establishes an understanding between different works. These references are made to influence the reader and add layers of depth to a text, based on their prior knowledge and understanding of the text (Martin 2011:148).

[110] Hybridity refers to the mixture of two or more elements or concepts, for example when video clips are used in theatre. These concepts or elements are not limited to only two elements and a hybrid can consist of the mixture of many different elements (Rajewsky 2006:43).

[111] According to Elleström and Salmose (2020:6) adaptation is when one medium changes into another medium, for example books that are adapted into feature films (Kattenbelt 2008:26). Some of the original narratives must be adapted in order for the story to be changed for the screen (Kattenbelt 2008:22). According to Elleström and Salmose's (2020:6) adaptation does not only refer to the adaptation from a novel to a film and today also includes adaptation of literature and film or media modalities for example computer games, opera, comic or graphic novels.

[112] Contemporary theatre can be seen as a hybrid that incorporates different elements or mediums into a performance for example, the use of text, music, objects, costumes, lighting, images, sounds, and set to name a few. These elements of mediums push the boundaries of conventional theatre and demand more of the audiences in terms of engagement. These may provide audiences with a new theatrical experience or perspective on theatre (Sierz 2008:1).

Elleström (2010:11) asserts that media is fundamental to the theory and praxis of intermediality. Intermediality is the relation between different media products[113], as well as the relationship among different media modalities (Elleström 2017:2). Crossley (2019:43) agrees with Elleström (2010), and adds that intermediality is about the adaptation and combination of different modalities of media, as well as the relationship between these different media modalities[114]. Intermediality is about identifying the various relations between different modalities of media, recognising the interaction between them, and providing a new intermedial foundation for media (Muller 2010:18). According to Chapple and Kattenbelt (2006:111), media are both similar and different at the same time, as the same media are constantly being re-mediated into new media thereby creating intermedial relations. Re-mediation is discussed in section 3.2.2.2. Elleström (2010:12) adds that if all media forms were fundamentally different or similar in the same way, it would be impossible to find any interrelations within the media. Therefore, media are, at the same time, similar and different and intermediality is the bridge between what these different media modalities have in common and the ways in which they are different. It also addresses how these differences are bridged (Elleström 2010:12).

Intermediality cannot be fully understood without first understanding the qualities of media and various notions and operations performed by the recipients of media (Elleström 2010:13). McLuhan (1964:8) states that most media content is always in another medium, as there are numerous interrelationships and collaborations among media, especially with the increase of technology. Media are not absolute entities as they are in a constant state of absorption and adaptation with other media. According to Crossley (2019:3), media are transparent, until they are revealed through another medium; for example, words or stories that manifest themselves through the literature of a physical document or book.

[113]When identifying media products, it should be understood in relation to technical media as technical media distributes media products to form communication. Technical media is the physical means through which media products communicate for example, audio tracks and poetry. Media products withhold the solid or non-solid physical entities in technical media (Elleström & Salmose 2020:4). It is not able to store media and only able to communicate media products, for example the variation of vocal cords, that is not able to store media and only communicate the media (Elleström 2014:19).

[114] According to Elleström and Salmose (2020:5) adaptation can be seen as a characteristic of intermediality, this is as the general term for the transmediation of one media product to another is referred to as adaptation. The notion of adaptation has changed over the years and has evolved into transmediality that expands on the notion of adaptation in much more depth (Elleström 2013:3).

The combination of one medium with other media, can result in only one medium being visible at a time. According to Elleström (2010:12), in order to define the interrelations between media, the notion of medium has to be unpacked[115]. The notion of medium according to Elleström (2010:12), should be divided into subcategories to identify the different interrelated aspects of a medium, namely: basic media, qualified media and technical media. Basic, qualified and technical media are not three separate modalities of media but instead, are complementary aspects of what a medium consists (Elleström 2010:12).

Basic and qualified media can be identified as abstract categories that allow one to understand how media modalities are formed through different sorts of qualities (Elleström 2010:12). According to Elleström and Salmose (2020:9), in order to fully understand the notion of qualified media, the notion of basic media first has to be identified, as qualified media consist of basic media. Basic media can be seen as media that are tangible, flat, and static (Elleström 2014:19). They manifest in themselves and function in basic sensorial and semiotic terms. An example of this is a still or moving image that does not consist of many different media forms or contains multiple signs and symbols (Elleström & Salmose 2020:9). Thus, basic media are not always sufficient to capture more specific media properties and thus one has to look at qualified media modalities. According to Elleström (2010:24), media are constructed by means of communication as qualified media. It defines the properties of media that are historically and communicatively situated and indicates their different properties, according to parameters, such as time, culture, aesthetic preferences and the availability of technologies (Crossley 2019:7). Qualified media are used as they add criteria that identify media that lie beyond basic media. It includes all aspects of media products, how they

[115] Medium refers to ‘middle’ or interval. According to Lars Elleström (2010:12) when referring to a medium without specific clarification, it can either refer to media category or to media modality. A medium can also be seen as the different elements used in theatre for example, lighting, staging, music and sound to name a few (Natale 2011:55). It is important to note that medium is a term that is widely employed in different fields of studies, and according to Elleström (2010:12) there are different fields or research that identify dissimilarities between mediums and mediality. When referring to medium in this study it refers to both, a theatre medium and the plural form of media which contains intermedial relations.

are produced, used and evaluated (Elleström & Salmose 2020:9). Qualified media can be seen as the socio-cultural interpretation and decoding of a range of objects and texts.

Technical media can be seen as the physical means through which media products communicate. They are the tangible devices that are used to materialise media modalities (Elleström 2010:12). Technical media distribute the sensory configuration (meaning-making) of the media products (Elleström 2014:19). When identifying the notion of media products, it should be understood in relation to technical media. Technical media are able to withhold and distribute media products; for example, technical media can be seen as the speakers or microphone that withhold media products (the vibration of vocal cords that are not able to store media) (Elleström & Salmose 2020:4).

Intermediality exists at the intersection of two or more media. When different media meet in a designated theatre space, they create the opportunity for intermedial theatre by utilising the connections and capacities of these media in an innovative manner. For the purposes of this study, then, intermediality is located at the conjunction where different media forms meet in order to create an intermedial performance and a new perspective in theatre and performance. Intermedial in theatre will be discussed below.

3.2.2 Intermediality in theatre

As more theatre productions during the twentieth and twenty-first centuries started incorporating digital media into their productions, the notion of intermediality in theatre changed. This change is seen with the fast pace at which technology is developing and in the ways in which theatre makers are incorporating digital media into their theatre productions (Chapple & Kattenbelt 2006:111). Most intermedial performances consist of the interconnection and different relations between digital media within the theatre space. As this study is focused on contemporary intermedial performances and its aim is to create a hypothetical medial immersive theatrical production, emphasis will be placed on incorporating digital media into a performance and the different intermedial relations between these digital media modalities (Chapple & Kattenbelt 2006:111).

Intermedial performances are theatrical performances that incorporate different digital media into the theatre space which creates intermedial relations within a performance (Chapple & Kattenbelt 2006:12). Intermedial performances create a space where boundaries of media modalities are softened, that allow audience members to be in-between and within a combination of spaces, media modalities, and realities (Chapple & Kattenbelt 2006:12). Audience members are able to be in-between and within a combination of realities, as intermedial performances show the process of re-mediation (exposing the media relation), thereby creating mixed realities. This allows audience members to be in-between several different facets and aspects that co-exist within a performance; for example, in-between the performance, audience, performers, media, and different realities (Chapple & Kattenbelt 2006:12)[116]. As mixed realities allow audience members to be in-between spaces, media and realities, they enable audience members to critically engage with the combination of different media relations within a performance (Crossley 2019:44)[117]. Importantly, all the media modalities are interwoven and interdependent, meaning that all modalities combine, and together with the performers, communicate and make meaning in a theatre performance. The theatre production in and on itself is dependent on this interweave and cannot occur if any of the mentioned elements are removed.

Thus, intermedial theatre is the incorporation of different media within a performance; the process of media are exposed (re-mediation), showing the co-relation of different media modalities and thereby creating mixed realities. Furthermore, it exists because of, and in-between, different spaces and realities. Theatre is further seen as an intermedial space, as it is a hypermedium (capable of incorporating different media modalities). Theatre as a hypermedium will be discussed below.

3.2.2.1 Theatre as a hypermedium

[116] The notion of mixed realities, and allowing audience members to be in-between the performance, audience, performers, media, and different realities will be discussed in section 3.2.2.3.
[117] The notion of re-mediation will be discussed in section 3.2.2.2 and section 3.2.2.3.

As mentioned before, theatre according to Chapple and Kattenbelt (2006:31), is a hypermedium that acts as a space in which all other art mediums and media modalities can exist[118]. A hypermedium can be seen as an extension of hypertext, a medium that is capable of incorporating other mediums without losing its original form[119]. According to Klaver (2000:39), theatre allows the "actual embodiment of another medium to occur within its physical environs" (cited in Georgi 2014:47). Theatre as a hypermedium creates a space where two or more media modalities or mediums can exist in and co-exist together (Meinecke 2003:1).

Theatre is able to incorporate different media modalities without changing the materiality of itself as a medium, or that of the media modalities and at the same time, represents the incorporated media modalities as theatrical signifiers (Georgi 2014:46)[120]. Theatre makes use of media mobility[121] where the materiality of a medium is left intact, although a theatrical sign is added to that media. Klaver (2000:39) further states that when placing a television within a theatre space, the television will still represent a television although it has also become a "theatrical signifier- an icon - within the language of the play's set" (Klaver 2000:39 cited in Georgi 2014:47). The incorporation of these different media modalities does not change the theatre space and act only as modalities that create a new perspective during a performance (Crossley 2019:4).

Elleström (2010:45) disagrees that theatre is a hypermedium and suggests that stating that theatre is able to incorporate all arts and media is an overstatement. Crossley (2019:19) agrees with Elleström (2010) to an extent, and argues that theatre can rather

[118] Defining theatre as a hypermedium is not a new theory and has been discussed by many theorists such as Kunt (1968), Chapple and Kattenbelt (2006), and Georgi (2014).
[119] Hypertext is a text that consist of many different texts and is able to extensively cross-reference between these different text (Meinecke 2003:1).
[120] Theatrical signifier are objects that are able to suppress their normal signification value and represents the same object in theatre. Thus, signifying the object as well as the object on stage. An example of this can be seen as a television that is used in a performance although the television still represents a television is also represents a television in a theatre performance (Georgi 2014:46).
[121] Media mobility is media that is able to add on additional semiotic qualities of other media (Georgi 2014:46).

be seen as multimodality[122], as it is a form of a qualified medium that is able to integrate basic media, qualified media and all aspects of media products (that show how they are produced, used and evaluated)[123]. Crossley (2019:19) states when different media modalities are presented within a theatre space, a hybrid between the original media and theatre is formed, allowing some of the qualities of the media to get lost. Restrictions within the theatre, for example, of not always being able to touch or smell objects within a performance, also allow some media modalities to lose some of their qualities. Thus, theatre according to Crossley (2019:21), can still be seen as a hypermedium but less vigorous than Chapple and Kattenbelt (2006) imply, as certain media lose some of their media qualities when integrated into the theatre space.

Thus, theatre can be seen as a hypermedium, where different media forms are able to collide and interconnect within the theatre space to create an intermedial space. Theatre as a hypermedium creates an intermedial space as it manifests in between the relations of basic, qualified and technical media. Theatre creates a space for different media modalities to interconnect, as theatre is able to process, store and transmit information through media, thereby re-mediating it into a 'new experience for audience members' (Elleström & Salmose 2020:9). This 'new' experience can be a different perspective or experience that is created through showing the process of re-mediating media. Re-mediation will be discussed in more depth below.

3.2.2.2 Re-mediation in intermedial performances

[122] Multimodality can be seen as a characteristic of intermediality as almost all media products consist of multimodality and most media forms are interrelated (Crossley 2019:5). Multimodality is defined as an inter-disciplinary approach that can be used in order to understand different combinations of media that are interrelated and co-exist together (Bezemer 2012:1). It focuses on the multiplicity of modes used in order to generate meaning. This meaning is generated through the combination of different modes or to be more precise, modalities.

[123] Thus, theatre consists of elements of multimodality and intermediality. Multimodality is visible in the combination and integration of basic and qualified media that consists of different modalities, and intermediality is visible as theatre is able to consist of different modalities that are able to interconnect with one another, thus creating intermedial relations (Crossley 2019:21). Stating that the theatre space is a multimodality adds to the argument that theatre is in fact an intermedial space. This is as multimodality is a characteristic of intermediality and aims to identify media products that are interrelated and co-exist together.

Re-mediation is related to transmediation. Transmediation is a fundamental notion in intermedial studies, as it consists of the combination and interconnection of different media. It shows the process of how media transmediates from one media form into another, thereby creating mixed realities (Elleström & Salmose 2020:9)[124]. As transmediation creates intermedial relations, it is vital when creating intermedial theatre. As discussed in Figure two, transmediality is the representation of different media modalities that are transferred to other media to create new media or medialities (Elleström 2014:16). An example of this can be seen as a piece of paper that has a music score on it, that can be later heard on a musical instrument. The same vital characteristics of the score are represented again in a different medium (Elleström 2014:16)[125]. As indicated in Figure Two, transmediation can be divided into re-mediation and transmediation[126].

The term re-mediation was first defined by Bolter and Grusin (1999:65) and was used to describe the transforming of analog media into new media. According to Crossley (2019:130), the notion of presenting re-mediation on stage is not new; post-modern theatre-makers have been using the process of re-mediation for years. Berry and Dieter 2015:5) refer to the process of re-mediation as “post-digital”, and it can be found in a number of different discourses to generate multiple meanings. “Post-digital” is a contemporary notion that started during the twenty-first century and refers to the rapid development of digital technology and the relationships between this developed technology and art forms (Berry & Dieter 2015:5).

[124] See section 3.2.2.2.
[125] According to Elleström (2020:5) in the context of art studies, the term for transmediality is also knows as adaption. The transmediation from one media product to another media product. It is important to note that not all types of transmediation of media products are called adaption. Intermediality operates in and through media modalities in order to create a transmedial foundation that activates and represents transmediation (Elleström 2014:38). These perspectives aim to identify the temporal gap among different media modalities. These can either be actual temporal gaps, in terms of different times or genesis of media or it can also represent the gap in the sense that the perceiver understands the significance of a medium on the basis of previously known media (Elleström 2014:6).
[126] Only the notion of re-mediation will be used in this study as trans-radiation is similar media modalities that are repeated and re-mediation is media modalities that re-mediates into new modalities (Elleström & Salmose 2020:9).

According to Chapple and Kattenbelt (2006:117), theatre shares the same desire as media to re-mediate. As the theatre space is able to incorporate different media and turn them into a new perspective or experience for audience members, it can thus be argued that the theatre space also re-mediates (Chapple & Kattenbelt 2006:117). This re-mediation takes place through the incorporation of different media into the theatre space that creates a new form of theatrical performance space (Chapple & Kattenbelt 2006:117). As stated earlier, this form of theatrical performance exposes the media relations through the process of re-mediation.

Re-mediation takes place when the process of how media transmediates is exposed, thus foregrounding the means of production. For example, when using a projector that projects images onto a screen, instead of hiding the projector to create the illusion of a fictional world, the performance shows how the projector projects images onto the screen, showing the process of how media re-mediates. Exposing different media relations and showing the process of how media re-mediates in a performance is staged in such a way, so as to expose the intermedial relations within that performance (Crossley 2019:28). Crossley (2019:32) asserts that re-mediation can create a disconnection between the media, forcing audience members to reconfigure the interconnection between different media. The process of re-mediation exposes the intermedial relations in a performance, as it is able to highlight the co-relation between different media forms by exposing the modes and qualifying aspects of that media, allowing audience members to focus their attention on the process of the media, rather than on the information the media contain.

By allowing audience members to engage in the process of how media re-mediate, they can focus on the physical presence of the media and the media that are used in order to create the performance (Crossley 2019:125). An example of re-mediation in theatre can be seen in Daniel Kitson's production *Analog* (2014), where the character Kitson plays more than forty cassettes to the audience, projecting old family photos onto a screen. During the whole performance, the character never speaks and the audience members see only the character putting on the next cassette and playing it, thus making the actor a stagehand. The performance permits audience members to see the materiality of the

machine and explore the physical presence of how the media are generated. It also enables audience members to focus on the different media used in the performance and the relations between the different media used, thus allowing audience members to focus on the intermedial relations of media. Showing the process of re-mediation also enables audience members to construct their own interpretation and make sense of what they see (Crossley 2019:125).

Re-mediation is also focused on the audience members' interpretations of the intermedial relations of media, as well as the experience of making the process of re-mediation visible (Chapple & Kattenbelt 2006:110). Carary (1992:6) uses the comparison between a picture and a moving picture. Although both forms of media consist of signs and signifiers that allow audience members to interpret it, through exposing the process of how media re-mediate has a greater effect on interpretation and the ways in which the sign and its referent are related (Chapple & Kattenbelt 2006:109).

Through exposing the intermedial relations between media modalities, audience members are able to construct spatial realities[127] and sensorial experiences[128] (Chapple & Kattenbelt 2006:109). Bolter and Grusin (1999:65) assert that as media can be used to recreate different realities, for example fictional worlds or virtual realities, the audience members' interpretation of the intermedial relations can also create yet another reality. Bolter and Grusin (1999:65) further state that the audience members' reality is able to exist as the 'real' (a relevant reality on its own), as the signs and symbolisation that are manifested by the audience members are always seen as 'real' and authentic, because it is the audience members' own experiences (Bolter & Grusin 1999:53). It can thus be implied that re-mediation can be seen as an act or performance, as it allows audience members to further interpret the performance (Rajewsky 2005:63). The re-mediation in a performance thus creates mixed realities; the physical reality exposes the process of

[127] Spatial realities are seen as mental imagery, the audience members' mental modes of spaces that are constructed from self-referentiality (Chapple & Kattenbelt 2006:109).
[128] The sensorial experiences refers to the information and experience the audience member are able to see, hear and in come performances even feel from the intermedial relations of media in the performance (Chapple & Kattenbelt 2006:109).

media re-mediation, the fictional world or virtual reality that the re-mediation creates and the audiences' interpretation of intermedial relations create another reality (Bolter & Grusin 1999:65).

Put another way, intermediality occurs when the re-mediation of media in a performance are shown that expose the intermedial relations of media, allowing re-mediation to be seen as a characteristic of intermediality. The process of how media re-mediate allows audience members to form a disconnection between the different media used in the performance and the interrelations between these different media. The process of re-mediation creates meaning through allowing the audience to interpret the process of re-mediation and construct their own interpretation. This in turn, creates a reality and thereby creates mixed realities within the context of the performance.

When creating a hypothetical medial, immersive, theatrical production, elements of re-mediation will be visible. Re-mediation is visible when audience members are able to put on and take off their three-dimensional glasses during the performance that changes the three-dimensional images into distorted images. The VR operator will be present throughout the hypothetical production. Re-mediation takes place as the audience member is constantly aware of the VR operator and sees the VR operator projecting the virtual reality (playing the video). The process of re-mediation is also visible in the performance, when the live character records a live video of herself and the audience member within the VR cylinder, and posts it on social media (see Chapter Five). This is just one example of the many ways in which intermedial theatre can take form, and the use of VR is not necessarily part of creating mixed realities. The notion of mixed realities will be discussed in more depth below.

3.2.2.3 Mixed realities in intermedial performances

Theatre makers are constantly looking at new ways to represent time (Chapple & Kattenbelt 2006:69). Proust (1871-1922) wanted to move away from the action of characters, choosing to rather capture the inner human condition through placing

emphasis on remembering and memory (cited in Chapple & Kattenbelt 2006:69). Proust's work required audience members to further interpret the performance, through incorporating different dimensions of time into the theatre space (cited in Chapple & Kattenbelt 2006:69). Time can be used to create a social-historical background, psychological development and even represent emotion, such as love and jealousy. According to Proust (1922), the use of time in theatre can present a variety of different dimensions; this is as the theatre space is able to constantly change and does not contain a certain time (cited in Chapple & Kattenbelt 2006:69). McPhee (2001:2) refers to this sense of time as deeptime, using it to distinguish between different representations of layers of time. Deeptime can be seen as geological time that incorporates immense intervals of time from millions of years ago, up to the future. It changes the scale of conventional time as we know it, as creates a space for different layers of time periods and temporal qualities to exist in the same time and space (McPhee 2001:2).

Contemporary theatre makers create different dimensions of time through the incorporation of digital media (Chapple & Kattenbelt 2006:71). In conventional theatre, the actors are normally seen as the moving element of a performance that drives the movement of the performance. With the incorporation of digital media for example film/videos within the theatre space, the digital media drives the movement as the actors' actions are dependent on the film/videos. These actions are dependent on the film/video as it is pre-recorded, and the performers' actions rely on moving images of the film/videos (Chapple & Kattenbelt 2006:71). When the live actor interacts with the digital media (for example a video), audience members are confronted with different dimensions, as the time of the digital media and theatre have both their own possibilities of representing time, thus creating mixed realities (Elleström 2014:20).

Early traces of mixed realities can be seen in Richard Wagner's work. Mixed realities can be seen as the hierarchy between the physical reality of the actors and the use of "*gesamtkunstwerke"* that create a fictional world (Fernandez 2013:3)[129]. Wagner's work

[129] *Gesamtkunstwerk* was first developed by the German writer a philosopher Trandoff and later used by Wagner to unify all artworks and incorporate it into the theatre (Fernandez 2013:4).

made use of the notion of *gesamtkunstwerke* (total work of art), where the incorporation of different elements of poetry, visual musical theatre, dramatic arts, and music were incorporated into a performance space to create different realities. The production of *The Ring of the Nibelungen* incorporates scenic painting, lighting effects, technology, and acoustical design, to create a believable 'virtual' world on the stage. Big canvases, with the scenery painted on them, were propelled with electric motors in order to move across the stage, while actors pretend to walk along. As the scenery was moving whilst the actors were pretending to walk, it created the illusion that the characters were walking through a 'real' forest. According to Fernandez (2013:4) "the scenery rendered in Wagner's opera becomes a vortex that sucks the audience into the dreamscape" (Fernandez 2013:4) and created a space where the fictional world and actors physically present, were brought together at the same time and space, thus creating mixed realities.

Mixed realities is a theatrical term that combines elements of digital media with conventional theatre in order to create mixed realities (Weijdom 2017:8). Incorporating digital media into a performance space and placing mediatised elements (mediatised spaces, actors or objects) and physically real elements (physical spaces, actors or objects) next to one another within the same time and space creates mixed realities. These different realities occur when audience members are aware of the fictional world (the time and space within the performance) and the virtual reality (the time and space that is created through sophisticated technology) (Weijdom 2017:8)[130]. Weijdom (2017:8) further states that mixed realities move on a scale of realities: between being completely mediatised, to being completely 'real environments'. This scale of realities also differs from production to production and there is no set parameter of how many 'physically real' elements or mediatised elements should be incorporated into a performance to create mixed realities (Fernandez 2013:5). The mediatised elements and 'physically real' elements merge and create a new environment where 'physically real' and mediatised

[130] Although the fictional world consists of physically real actors, objects or environments it is still perceived as fictional as the physically real objects, actors and spaces exist within the fictional world of the performance. It is also important to note that if a performance consist of the physically realty and not a fictional reality with real characters, objects or environments, audience members can only participate in the virtual reality and be immersed in it, as one is present in the physical reality and not able to be immersed in the physical reality.

spaces, characters or objects co-exist together and interact with one another at a certain point in time. This merging creates different realities: the reality of the virtual, the reality of the performance (fictional world) and the reality created when the two realities intersect at the same time and space (Fernandez 2013:5). The mixing of realities also problematises ideas of the real, the performer's presence and the immediacy of the performance. However, such a discussion falls outside the scope of this dissertation.

Weijdom (2017:8) further states that there should be a balance between the fictional world and virtual reality in mixed reality performances. Mixed reality performances normally consist of the combination of the VR cave system or VR headgear that is combined with physically real characters and objects. This can also be the other way around; the characters can be a virtual representation and the setting physically real (Weijdom 2017:8). It is important to note that not all mixed reality productions incorporate the VR cave system or VR headgear to create virtual realities. The physically real reality and the virtual realities should seamlessly integrate with each other, even if the highly immersed VR cave system is used (Weijdom 2017:8). In the performance *The Cube* (2016), created by the production company CIRCA69, audience members entering the performance location were greeted by physically present actors in character and told to put on VR headgear. The VR headgear allowed the audience members to enter a virtual reality; physically present characters were also able to interact with the audience members whilst being in the virtual environment, thus creating mixed realities (Weijdom 2017:8). Mixed realities are created through allowing the audience member to be present in both the virtual reality and the physically real reality, thus creating a balance between the real and the virtual. The combination of physically real reality and virtual realities in the same space, enables audience members to constantly question what is real and what is not (Weijdom 2017:10).

According to Fernandez (2013:2) the juxtaposition of 'real' and virtual elements within the same time and space generates tension among audience members through forcing them to deliberate on the artistic and cultural implications of these mixed realities. According to Susan Broadhurst (2004:1), when the combination of live and digital bodies are placed in

the same space, the tension between the physical real and virtual realities allows for new experimental forms of contemporary theatre. This 'tension' is an essential part of mixed realities as it allows audience members to engage with the performance, which creates different interpretations and experiences (Fernandez 2013:5).

An example of this tension is seen in McBurney's production *Encounter,* where live actors (that are physically present in the theatre space) interact with headphones and pictures that showcase recordings and images (which are mediatised) of Amazon people during 1969, bringing the past back into the present (Chapple & Kattenbelt 2006:109). As the actors physically present in the live performance interact with the recorded sounds and images, it creates a juxtaposition of the live and the mediatised. The interaction between the live and mediatised elements at the same time and space creates a space where audience members are constantly focusing on what is real and what is not. This enables audience members to focus on the intermedia relation of media used in order to create these mixed realities. The mixed realities also allow audience members to further interpret the performance (Chapple & Kattenbelt 2006:109)[131].

Another example of this is the production company The Builders Association production, *Part One: Roger Dearborn*, where an actor is sitting on stage with a big screen behind him and a camera next to him (Chapple & Kattenbelt 2006:57). As the camera is recording the actor, the image of the actor is projected onto the screen behind him which creates mixed realities, a live and mediatised representation of the same actor that creates two different perspectives at the same time and place (Chapple & Kattenbelt 2006:57). The presence of the actor is heightened with the co-presence of a mediatised image of the same actor that is projected on the screen, thus allowing the audience member to question what is real and what is not.

[131] The notion of mixed realities will be discussed in more depth in section 3.2.2.2.1, when defining hypermediacy and immediacy.

Mixed realities also heighten the audience members' own physical reality which enables them to deliberate on the artistic elements used, in order to create these mixed realities[132]. When trying to identify the different intermedial relations used to create mixed realities and being able to interpret them, one has to look at hypermediacy and immediacy. The notion of hypermediacy and immediacy will be discussed below.

3.2.2.3.1 Hypermediacy and immediacy

Chapple and Kattenbelt (2006:63) further assert that when watching a performance that consists of live and mediatised elements, one should identify the notion of immediacy and hypermediacy. Immediacy, according to Chapple and Kattenbelt (2006:64), is a live performance that takes place in the physical reality where the audience members are aware of the here and now of current events, and it has an immediate effect on them. Immediacy is not only focused on what one sees; it is also focused on the relation of meaning and the effect of the visible, acoustic and textural aspects of the staging, and how they impact the audience members (Chapple & Kattenbelt 2006:63). Immediacy concerns the presence of the performer and audience members at the same time and space; thus, it is seen as a live event, as it strives to be as un-mediatised as possible (Chapple & Kattenbelt 2006:64)[133]. Hypermediacy creates an awareness of the media used in the performance. Hypermediacy is not just about identifying the number of media used in a performance; it is also about identifying the different sources of media used in order to create the performance (Bolter & Grusin 1999:34). This process of identifying media relations is expressed through simultaneity. Simultaneity is a characteristic of hypermediacy and is used to identify the different interrelations of media (Chapple & Kattenbelt 2006:56).

Hypermedial theatre permits audience members to be aware of the media used in a performance and enables them to focus on the interactions between different media forms

[132] The audience members' interpretation of mixed realities will be discussed later on in this section.
[133] Henceforth, I will refer to 'live' as objects, characters or environments that take place in the physical reality as they are seen and experienced by audiences simultaneously present in the immediacy of the theatre space (Chapple & Kattenbelt 2006:64).

in a performance. Hypermedial theatre makes uses of *mise-en-scène* in order to stage a performance that generates meaning (Chapple & Kattenbelt 2006:63)[134]. *Mise-en-scène* is used to generate meaning in a performance through staging different elements in a performance. As everything in a performance becomes a visual signifier that contains semiotic value, *mise-en-scène* is thus able to incorporate different signs and semiotic value into the performance that is able to generate meaning (Chapple & Kattenbelt 2006:63). As mentioned previously, when incorporating digital media for example, a projector-screen in a performance, the digital media are still able to represent a projector screen, although it has also become a theatrical signifier. Thus the projector-screen relies on the staging (*mise-en-scène*) in the theatre space, as a projector-screen in a cinema has a different meaning as a projector-screen on a stage (Chapple & Kattenbelt 2006:63).

The use of *mise-en-scène* transforms the stage from a flat two-dimensional space (when the theatre is only one medium on its own), into a three-dimensional space (incorporating multiple media). For example, where film as a single medium allows audience members to watch a story unfold and connect with the fictional world, hypermedial theatre places the film in the theatre spaces and demonstrates the process of re-mediation (Chapple & Kattenbelt 2006:57). Hypermediacy is able to incorporate different media into the theatre space that present different meanings and expose the intermedial relations between the different media and show how the media re-mediate (Chapple & Kattenbelt 2006:63).

Hypermediacy and immediacy according to Bolter and Grusin (1999:33), are mutually linked and often work simultaneously. Hypermediacy in theatre is the simultaneous incorporation of live elements; for example, a live character (that exists in the theatrical time and place) with mediatised elements, for example film (that exists within the time and space of the film) that are placed in the immediate time and place of the theatre (Chapple & Kattenbelt 2006:64). Through incorporating live and mediatised elements within the immediacy of the theatre space creates intermedial theatre that generates

[134] *Mise-en-scène* is used in order to stage a hypermedial performance, and is able to stage a performance in such a manner that it exposes the intermedial relations and show the process of re-mediation (Chapple & Kattenbelt 2006:64).

mixed realities. The intermedial performance exposes different media relations in the performance and permits audience members to engage in the process of how media re-mediate to enable audience members to be in-between different spaces, media relations and realities within the performance (Chapple & Kattenbelt 2006:64).

Through creating mixed realities and exposing the intermedial relations of media within the performance, audience members are able to construct and interpret the materiality of the virtual reality, beyond what is represented (Elleström 2010:15). Audience members are able to comprehend a flat pictorial image through drawing on one's perception and understanding of the materiality of that specific object, to comprehend the virtual height, virtual length and virtual depth of the virtual objects, virtual characters or virtual environment within the performance (Crossley 2019:11). This interpretation of the virtual reality represents an expansive sense of self-referentiality among audience members, as the audience members have to use their imaginations to create a representation of the virtual reality within the performance (Crossley 2019:11)[135]. Elleström (2010:20) refers to this interpretation of the audiences' as cross-modal representation. Cross-modal representation refers to meaning-making and enables audience members to interpret media beyond the media products that are visible (Elleström 2010:20). Thus, audience members are able to observe a static, two-dimensional image and construct representational materialities of that image to create three-dimensional virtual objects (Elleström 2010:20).

Crossley (2019:12) adds that the interpretation of the virtual reality enables audience members to perceive the virtual reality beyond its limitation. The virtual reality's temporal and spatial qualities are also able to go beyond the screen and can be seen for example, when a film frame of a character climbing into a car is shown, the next frame cuts to the character reaching their destination; the time in between was not shown but audiences perceive the passing of time (Crossley 2019:12).

[135] Self-referential refers to the process of being able to interpret work and being able to refer it back to either the author, other work or oneself (Elleström 2010:20).

Thus, hypermediacy is used to show the process of re-mediation in a performance and exposes the intermedial relations within the performance. Hypermediacy allows audience members to engage with intermedial relations of media and as it shows the process of re-mediation in the immediacy of theatre. It creates mixed realities that enable audience members to be in-between different realities (a virtual reality and physically real reality or fictional world) (Chapple & Kattenbelt 2006:57). Mixed realties stimulate audience members by providing them with different intermedial relations and signs to choose from and draw upon, in order to understanding the materiality of the virtual reality and construct a representation of the virtual reality within the performance (Kattenbelt 2006:97). The use of mixed realities in a performance can also heighten the audience members' physical presence and create liveness. The notion of liveness will be discussed below.

3.2.2.3.2 Liveness in intermedial theatre

As mentioned in Chapter One and Two, theatre is traditionally understood as being a live medium, with immediacy (happening in the present), immersion and emotional involvement as an integral part thereof (Georgi 2014:82)[136]. According to Auslander (2008:8), theatre creates liveness as it is indicated as a live event, with live performers on a stage or in a performing space in front of a live audience, happening in the present. Because performers are together in real time and in a physical place, the audience is complicit in the completion of the theatre performance by means of a continuous feedback loop (Georgi 2014:249). They thus share a "spatio-temporal co-presence" that is assumed to be central to liveness (Georgi 2014:82). The liveness of theatre implies that performances are ephemeral (existing only in the moment of performance, continually on the verge of disappearing) and that a repeated performance cannot be identical (Georgi 2014:249)[137].

[136] Immersion in theatre will be discussed in section 3.3.
[137] Marcia B. Siegel's *At the vanishing point: a critic looks at dance* (1968) states that "[d]ance exists at a perpetual vanishing point. At the moment of its creation it is gone…It is an event that disappears in the very act of materializing. No other art is so hard to catch, so impossible to hold." The same sentiment applies to theatre as scholars like Herbert Blau and Richard Schechner have pointed out.

The above definition of liveness shifted and expanded, as the concept of liveness was increasingly conceptualised in relation to new technologies (Auslander 2017:110)[138]. For Auslander, however, liveness is not necessarily produced by the present or the 'now', as it can also be purposefully produced and evoked in other ways. (Inter)mediality in theatre performance allows the relationship between performers and audience to be structured in accordance with "temporal and spatial variables" (Auslander 2017:109), rather than temporal and spatial fixities. This means that spatial co-presence becomes less of a marker for a theatre performance to be positioned as live.

According to Scott (2012:1) intermedial performances are able to generate liveness as the mediated elements of the performance take place in the immediacy of the theatre space, thus making it 'live'. As theatre is the art of physical presence, the audience members and the performers are simultaneously physically present at the same time and space; mediatised elements in intermedial theatre become 'live' again as it takes place in the immediacy of the theatre space.

Elleström (2014:20) agrees that mediatised media can become 'live' again within the immediacy of theatre and refers to media sequentiality. Sequentiality is the temporal level of rigidity or flexibility that can be found in a medium, and identifies the temporal (time) progression in particular mediums (Elleström 2014:20). Sequentiality, media can be divided into three categories: fixed sequentiality, partially fixed sequentiality and non-fixed sequentiality (Elleström 2010:19). Motion pictures, films and recorded music can be seen as fixed sequentiality, as a film for example, runs for a set duration and always runs in the same sequence (Elleström 2010:19). Partially fixed sequentiality can be seen in a stand-up comedy show, where there is a degree of time structure. There is a distinct start/middle and end to the performance but room for a change of pace, audience interaction and

[138] Auslander (2017:111) quotes Couldry who proposes "two new forms of liveness," namely "online liveness" and "group liveness" - "online liveness: social co-presence on a variety of scales from very small groups in chat rooms to huge international audiences for breaking news on major Web sites, all made possible by the Internet as an underlying infrastructure . . . [G]roup liveness[:] . . . the "liveness" of a mobile group of friends who are in continuous contact via their mobile phones through calls and texting." Auslander (2017:111-112) further states that ideas such as websites going live evokes in us a "feeling of interaction" that is more or less comparable (but not entirely similar to "our interactions with other people".

improvisation, to an extent that can change the performance duration (Elleström 2010:19). Non-fixed sequentiality is very unpredictable and fluid as it has no definite start/middle and end. It can consist purely of improvised happenings or spontaneous rave.

Elleström (2014:20) adds that the sequential characteristic of the fixed sequential media is able to change when it is situated in a live performance and thus, becomes live again. An example of this is a live performance (which consist of a partially fixed sequentiality) that incorporates recorded songs (which are fixed sequentialities). The manifestation of the live performance changes the fixed sequential media into the now of the performance (Elleström 2014:20). Thus, it allows the fixed sequential media to form part of a temporal experience that takes place in a moment. Even media that seem to have no temporal quality; for example, a picture, can develop a sense of movement and progression in time when incorporated in a live performance (Elleström 2014:20). Creating time to become a hybrid of temporality, which is created through the combinations of different forms of media is used in live performances (Kattenbelt 2006:102). According to Chapple and Kattenbelt (2006:78), the representation of fixed sequential images in the theatre enhances audience members' awareness of the liveness of theatre. This is as a video (with fixed sequentiality) becomes live again in a live performance, which heightens the physical presence of the audience members. Thus, the immediacy of the theatre space is able to make mediatised elements live again. The process of making mediatised elements live again heightens the audience members' sense of presence (Kattenbelt 2006:97).

According to Pitches and Popat (2011:91), liveness also has to do with performers or objects and their relationship with recorded imagery or sound in a live theatre production, thus questioning the movement and 'reality' of time and space in a performance. For Auslander (2017:109), this is a kind of performance that is "live and not live". When material is not prerecorded, but for example, recorded in performance while using it as part of a performance, it adds further complexities in that and there are no clear distinctions between what is live and what is mediatised. An example, is the blurring of live and mediatised characters/roles and/or the exchangeability of 'live' and medial

characters/roles/performers. For (Georgi 2015:78), the medial disguises the absence of liveness, and liveness heightens the perceived authenticity (if not liveness), of the intermedial (Georgi 2014:78). Here we can beg the question whether mediatisation simulates liveness or constitutes liveness[139].

Auslander (1999:7) sees the live and the mediatised[140] not as different by nature but rather, as socially constructed. Auslander (1999:39) further suggests that the live and the mediatised is mutually constitutive and have a circular relationship:

> [W]hereas mediatized performance derives its authority from its reference to the live or the real, the live now derives its authority from its reference to the mediatized, which derives its authority from its reference to the live, etc.

Thus, in the context of 'live' intermedial theatre, the question arises as to whether theatre (characterised by liveness), has become so suffused by mediatisation that the live performance is no longer a live performance (Georgi 2014:78). Auslander (2017:117) goes as far as to say that liveness may mainly be "an affective experience on the part of the audience rather than a characteristic of the performance"; thus, theatre performances are live only to the extent that audiences experience them as such. I will return to this point in Chapter Five.

It can thus be argued that intermediality is used to create mixed realities and exposes the intermedial relations within a performance, showing the process of re-mediation, creating mixed realities in a performance. Intermedial performances place the audience members in a space where the media relations are exposed, that allows audience members to critically integrate with the process of how media works. Audience members are also able to interpret the virtual and/or fictional space(s) multi-dimensionally. The mixed realities also

[139] Liveness can either be a simulation (to re-create the physical process of liveness) or through constituting liveness (see chapter Three and Four).
[140] Auslander (1999:5) views mediatised performances as "performance that is circulated on television, as audio or video recordings, and in other forms based in technologies of reproduction". However, he does consider the crossover and integration of these media modalities in/with theatre (mediality) and uses key ideas from his 1999 book to speak about mediality in performance in his 2017 book.

enable audience members to constantly be aware of the different realities and as intermedial performances take place in the here and now of the theatre space, it creates liveness.

3.3 Immersion in intermedial theatre

The next section of this chapter will identify how intermedial theatre generates immersion. Nilsson, Nordahl and Serafin's (2016) three views of immersion (system immersion, narrative immersion, and challenge-based immersion) and their views of presence in relation towards immersion, will be used as a framework for identifying immersion within intermedial performances. Emphasis will be placed on the three-pole mode of presence; presence as a three-layered, bio-cultural mechanism and place and plausibility illusion in order to generate immersion. I focus on how the incorporation of system immersion within the theatre space can create an intermedial performance.

3.3.1 Immersion in mixed realities

There has to be a balance between the live elements and mediatised elements within a performance to create mixed realities, as too little technology or too much, will only allow one reality to be visible within the performance. According to Crossley (2019:21), highly technological media, for example, the VR cave systems and VR headsets can create highly immersive spaces that do not create a framework for intermediality. These highly technological media allow audience members to enter a virtual environment and be immersed, as these virtual realities are so close to reality that audience members cannot distinguish between what is real and what is not[141].

Crossley (2019:116) states that these highly technological theatrical performances only generate system immersion; the performances do not show the different intermedial

[141] Although VR cave systems and VR headsets are used to immerse users or audience members within a virtual reality, these highly technological media combined with live elements can also be used in intermedial performances to create mixed realities and show different media relations (see section 3.3.1.1 and Chapter Five).

relations within a performance and do not create mixed realities (Crossley 2019:116). Crossley (2019:116) further states that the performances should rather show the intermedial relations of media and the process of re-mediation in a performance; for example, instead of only showing a video clip in a performance, the performance should show the process of the actor recording himself with a video camera and how the image projects onto a screen (Emerson 2014:3).

Creating intermedial performances that show the process of re-mediation and consist of live and mediatised elements within the same time and space, generate different levels of immersion[142]. Audience members are able to feel present through keeping spatial attention in one of the represented realities (the physical reality/fictional world and virtual reality) that generates (system immersion, narrative immersion, and challenge-based immersion), or through the constant shifting between the different realities that generate (three-pole mode of presence, presence as a three-layered, bio-cultural mechanism or place and plausibility illusion).

3.3.1.1 System immersion in intermedial performances

System immersion can be generated among audience members within an intermedial performance that consists of highly technological media (for example, a VR cave system) combined with live performers. System immersion is only able to be generated within the virtual reality (represented reality) of the performance. System immersion is generated through allowing audience members to enter a virtual reality and feel part of the virtual reality (Nilsson *et al*., 2016:129). Audience members are able to feel present within the virtual reality as they are able to perceive the virtual reality as ‘real’ or ‘the reality’, thus being immersed (Nilsson et *al.*, 2016:129).

3.3.1.2 Narrative immersion in intermedial performances

[142] See section 3.3.1.1, 3.3.1.2, 3.3.2 and 3.3.3.

Narrative immersion (spatial immersion, temporal immersion and emotional immersion) is generated within both represented realities (virtual reality or fictional reality/both)[143] within a performance[144]. Spatial immersion is generated when audience members are able to interact with the represented reality, form a relationship with the reality and perceive it as 'real' or 'the reality' (Ryan 2003:122). Temporal immersion is generated through allowing audience members to explore the represented reality and therefore, want to know what is going to happen next or how events unfold. This enables audience members to feel part of the represented reality (fictional world or virtual reality) and perceive it as 'reality' or 'the real' (Ryan 2003:141). Emotional immersion is generated through permitting audience members to interact with the characters or objects within the represented reality, forming a relationship with the characters or objects and emotionally connecting with them (Ryan 2003:130). This emotional connection enables audience members to feel part of the represented reality and immerse themselves within the reality (fictional world/ virtual reality/both).

3.3.1.3 Challenge-based immersion in intermedial performances

Some represented realities within intermedial performances even allow audience members to interact with the represented reality through performing tasks and overcoming obstacles, thus generating challenge-based immersion. Audience members are able to immerse within the represented reality (fictional world/ virtual reality/both) through performing tasks and overcoming challenges that enables audience members to focus their attention on the represented reality and thus become immersed (Ermi & Mäyrä 2005:43). Most performances allow audience members to choose how involved they want to be in the performance, from either beginning as a passive audience member to becoming a participant (Weijdom 2017:13). It is important to note that the level of immersion the audience member will generate is subjective, and is dependent on how far

[143] Some intermedial performances encourage audience members to interact with either one or all of the different represented realities and be immerse within one or all of the represented realities
[144] As mentioned in Chapter Two, narrative immersion can be divided into subcategories namely; place immersion, temporal immersion and emotional immersion.

the audience member is able interact with the represented reality, in order to become immersed.

3.3.1.4 Place and plausibility illusion in intermedial performances

It is also important to note that immersion can be generated through allowing audience members to be present within the represented reality (fictional world/ virtual reality/both) through place and plausibility illusion. As mentioned in Chapter Two, when audience members are able to feel present within a represented reality, they are able to dedicate their attention to that reality and see the reality as 'real' or 'the reality', thus being immersed within the reality. Place and plausibility illusion is generated through allowing audience members to interact with the represented reality as one would in the physical reality, thus generating immersion (Slater 2009:3550).

3.3.1.5 The three-pole mode of presence in intermedial performances

Although audience members are able to be immersed within the represented realities (fictional world/ virtual reality/both) within an intermedial performance, the constant shift between different realities can also generate immersion. Mixed realities within intermedial performance, are able to immerse audience members, as they are able to feel present through the three-pole mode of presence. The mixed realities within a performance enables audience members to shift between the virtual space, the mental imagery space, and the physical space.

The shift between all the realities permit audience members to develop relationships with the realities. As the shift between the different realities heightens, the reality of each represented space allows the audience member to constantly question their physical presence within the space. When audience members shift between the different realities, the highest scenes of presence are achieved as audience members' sense of presence is heightened through constantly questioning their own physical presence and thus being immersed in the space (Ryan 2003:122).

3.3.1.6 Presence as a three-layered, bio-cultural mechanism within intermedial performances

Mixed realities in intermedial performances also allow audience members to be present through the three-layered, bio-cultural mechanism that generates immersion among audience members. When audience members are placed within an intermedial performance that generates mixed realities, a new mode of embodiment and interpretation is created that allow audience members to question their bodily here and now and distinguish between proto presence, core consciousness, and extended consciousness (Riva *et al*. 2004:402). Core consciousness is generated among audience members by allowing them to interact with the here and now of the represented reality. Being able to interact with objects, characters and the environment within the represented reality, enables audience members to be aware of their core consciousness. Extended consciousness is generated through creating mental images of places, as well as interpreting the virtual images and even constructing narrative (Riva *et al.* 2004:203). The process of extended consciousness immerses audience members by permitting them to construct their own interpretation of the virtual environment or narrative that generates immersion.

Proto presence is generated when audience members can distinguish between their core and extended consciousness and question the self and the non-self. As mixed realities in an intermedial performance are able to generate core consciousness and extended consciousness simultaneously within the audience members, proto presence is also generated (Riva *et al*. 2004:402). When all three of these layers are present at the same time, immersion among audience members is generated as audience members are able to be present, and thus become immersed.

Intermedial performances generate immersion through creating mixed realties. Audience members can become immersed in one of the represented realities and perceive it as ‘real’ or as ‘the reality’. Immersion can also be generated through the different realities

that allow the audience member to constantly shift between the different realities and heighten the audience member's presence, or through allowing the audience member to question their self from their non-self.

3.4 Conclusion

Based on the information discussed in this chapter, it can be concluded that intermediality takes place in-between the performance, audience, performers, media modalities, and different realities. Immersion can either be the experience or interaction with the media, the crossing of boundaries, and intermedial and transmedial relationships between media, with increasing self-referentiality that enables audience members to be in-between realities.

The theatre space is also seen as an intermedial space, as theatre is a hypermedium (seen in section 3.2.2.1) able to incorporate almost all media forms without changing its media materiality, as well as representing the media as a theatrical signifier. The theatre space is able to consist of the mixture and fusion of different media modalities, exposing the media relations and show the process of re-mediation. Intermediality occurs when these different media are able to re-mediate the theatre space, creating different experiences or perspectives for audience members. The process of how media re-mediates allows audience members to form a disconnection between the media and modalities, forcing them to reconfigure the qualified medium. Re-mediation creates meaning through the disconnection between media and the context in which they exist, thus allowing audience members to construct spatial realities and sensorial experiences through cognitive-discursive connections.

As seen in section 3.2.2.3, the incorporation of mediatised elements into a live performance creates mixed realities. The point of interface where the live and mediatised meets, is where intermediality lies. The juxtaposition between the live and mediatised creates mixed realities where audience members constantly focus on what is real and what is not, and also, may see this binary collapse. The incorporation of different realities

creates different dimensions of time and space. These spaces are the physical reality/fictional world of time and space; the virtual realities of time and space, and the interpretation of the audience members (extended consciousness). Mixed realities enable audience members to construct and interpret the materiality of the virtual beyond what is represented, which enables them be immersed. It can thus also be argued that the incorporation of system immersion (highly technological media) into the theatre space creates an intermedial space, as the theatre space is able to expose the media relations and show the process of re-mediation. This creates mixed realties that do not only allow audience members to be immersed through system immersion, but on different levels, as well.

Audience members are able to be immersed within the represented realities (fictional world/virtual reality/both) within an intermedial performance. The represented realities (fictional world/virtual reality/both) are able to immerse audience members through system immersion, narrative immersion or challenge-based immersion (section 3.3.1.1, 3.3.1.2 and 3.3.1.3). The exposure of media relations can also heighten presence among audience members and enable them to feel present through the three-pole mode of presence, and presence as a three-layered, bio-cultural mechanism (section 3.3.1.5 and 3.3.1.6). Mixed realities enable audience members to be in-between different realities that heighten the represented realities, as well as their own physical prescreens which enable them to be immersed. The constant shift between different realities also immerse audience members, as they are constantly aware of their presence and able to distinguish their selves from their non-selves. The immediacy of the theatre space generates liveness among audience members as the mediatised elements are able to become ‘live’ again when placed in the immediacy of the theatre space (section 3.2.2.3.2).

The next chapter will focus on the incorporation of narrative immersion and challenge-based immersion through transmedia storytelling and create a framework for producing a hypothetical medial immersive theatre production. To do so, I discuss the notion of transmedia storytelling next.

CHAPTER FOUR: IMMERSION IN TRANSMEDIA STORYTELLING

This chapter begins by further exploring the notion of transmedia storytelling and discussing how transmedia storytelling functions in a medial framework, specifically focusing on intermediality[145]. The chapter will then discuss how immersion exists within transmedia storytelling to create a framework for creating a medial, immersive, theatrical production. I emphasise liveness and discuss how liveness exists in transmedia storytelling. The second section of this chapter will integrate the information gathered from Chapter Two, Chapter Three and Chapter Four to create a hypothetical framework for producing a medial immersive theatrical production.

4.1 Transmedia storytelling

The notion of transmedia storytelling was developed by Jenkins and refers to the different content of narrative that is told on different mediums, for example, films, books, comic books, theatre productions and even social media platforms (Jenkins 2007:2):

> Transmedia storytelling represents a process where integrating elements of a fiction get dispersed systematically across multiple delivery channels for the purpose of creating a unified and coordinated entertainment experience.

Above, Jenkins (2007:2) defines transmedia storytelling as having various content and contexts of fictional narratives that are systematically spread on "multiple delivery channels" with the purpose of creating a "unified and coordinated entertainment experience" (Jenkins 2007:1)[146]. Different segments that contain their own narrative are purposefully spread on different media and read up against one another to contribute to the unfolding story and make sense of a larger narrative phenomenon (2007:2). This larger narrative phenomenon can be seen, for example, as a franchise that consists of

[145] When further developing the notion of transmedia storytelling and identifying how transmedia storytelling functions in intermedia realms, one has to look at the notion of transmediation (Elleström & Salmose 2020:7) (see section 4.2).
[146] According to Jenkins (2007:1) coordinated entertainment experience refers to different segments of a story narrative told across different media platforms.

different segments of a narrative told on different media that together, all contribute to an overall narrative. For example, *Wizard of Oz* (1939) or the *Game of Thrones* (2011) franchises that consist of books, films/series and maps of the fictional world (Jenkins 2013). When viewers are able to access all these different transmedia storytelling extensions it creates an entertainment experience among viewers[147].

Ryan (2013:4) asserts that transmedia storytelling can be considered popular and a more contemporary mode of presenting narratives, as most transmedia storytelling extensions are a mediatised event that exists on digital media platforms, for example, videos, websites and social media platforms. As stated in Chapter One, Auslander (2008:4) refers to mediatised events as performances that take place in mediatised culture when mass media or any form of digital media is used in order to present the event. Mediatised events provide an immediate connection between the event and the viewer and the use of digital media and devices fosters the connection (Auslander 2008:4). Jenkins (2013:1) agrees with Ryan (2013) and further states that mediatised events are also more accessible and can reach a wider audience in a shorter period of time, as they exist on digital media platforms. Digital media also provide storytellers and theatre-makers with more options as to how they can tell stories and allow them to extend their narratives onto different media and digital platforms, such as: video trailers, websites*, Instagram, Facebook, Twitter, Tumblr, SoundCloud, Snapchat, TikTok, YouTube, WhatsApp* and *9GaG* (Jenkins 2007:2). An example is the singer and actor, Colleen Ballinger's character Miranda Sings that exists on different media and social media platforms. The character Miranda Sings (created and performed by Colleen Ballinger) has her own *YouTube* channel (since 2008), an *Instagram* page, *Facebook* account, and she stars in the *Netflix original series, Haters Back Off* (2017). Sing's social media accounts provide viewers with insight into the character's everyday life and viewers are able to interact with the character online[148]. The character also performs live one-man shows, attends interviews and

[147] Transmedia storytelling extensions consist of segments of narrative that all together form part a large narrative phenomenon. The notion of transmedia storytelling extensions will be discussed in more depth later on in this section.
[148] Participation within transmedia storytelling will be discussed in section 4.1.2.

interacts with audience members before, after and during the performances, whilst staying in character.

Transmedia storytelling are different extensions that each contain segments of narrative (functionally independent from one another) that provide more insight into/or depth to a larger, unified narrative (Jenkins 2011:1). Jenkins (2011:1) states that transmedia storytelling refers to the "movement across texts". Narratives are transmediated across different media to create different transmedia storytelling extensions. As mentioned in Chapter Three, transmediation is similar to adaptation and occurs when media transmediate from one medium to another. In the context, narrative can be largely seen as transmediation, as narrative is able to transmediate onto different media (transmedia storytelling extensions). For example, segments of narrative are transmediated to books, films, comic books, video games or multiple social media platforms (Elleström & Salmose 2020:6).

Transmedia storytelling extensions are segments of narrative that exist on different media; for example, extensions of a narrative that exist in books, films or short videos and websites, or one medium that consists of different segments of narrative, for example, the *Toy Story Films* (1995, 1999, 2010, 2019) that are different segments of a larger narrative phenomenon told on the same medium (Jenkins 2016:1)[149]. These different transmedia storytelling extensions should contain enough information on how the story unfolds and the extensions overlap with one another, so that viewers do not get lost and lose track of the overall plot of the story (Elleström & Salmose 2020:6). Kress (2009:12), states that the use of different media within transmedia storytelling extensions will have a different effect on the representation of the narrative for the viewer. For example, viewers will have a different experience when watching the *Spiderman* (2002, 2004, 2007, 2012, 2014) feature films and have a different representation of the narrative from reading the comic books or playing the video games. Viewers form a different connection with the narrative when playing a game, as when reading a book or watching the movie (Kress 2009:12).

[149] I discuss the intermedial relations within transmedia storytelling extensions in more depth later in this chapter when I explore the notion of immersion in transmedia storytelling (section 4.4).

Thus, transmedia storytelling is different transmedia storytelling extensions that consist of segments of narrative, told on different media or a singular medium that consists of numerous segments of narrative. Each medium also enables the viewer to perceive the narrative in a different manner through the manner in which the medium is able to present the text. Below, I address plot, as it pertains to transmedia storytelling.

4.1.1 Plot in transmedia storytelling

The fictional world in transmedia storytelling according to Jenkins (2013:1), is just as important as the plot in conventional theatre or film, as the fictional world is made up of different transmedia storytelling extensions that each contain different narrative segments that enable captivating the viewers and forming a narrative. Transmedia storytelling makes use of a "serial structure" that uses transmedia storytelling extensions to generate a story as a whole (Pratten 2015:8). Serial structure is a large plot that consists of different episodes of narrative that typically take place over a period of time. Every episode acts as a different chapter that contributes to the story as a whole and normally consist of a hook or cliffhanger that motivates the viewer to return to watch another episode. For example, *Game of Thrones* (2011) consists of seventy-three episodes spread across eight seasons (Pratten 2015:8). Serial structures normally take place within the same text; for example, when the whole series exists on a television show or through a series of books, allowing not all serial structures to be identified as transmedia storytelling (Pratten 2015:8).

According to Jenkins (2007:1) transmedia storytelling extensions are used to offer insight into a character's motives and even allow storytellers to focus not only on the main characters. Different extensions enable storytellers to focus on other characters within the fictional world and their relationship between one another and their relationship with the fictional world. An example of such transmedial narrative expansive is the *Harry Potter* franchise, which consists of seven books, eight films, stage productions, board games, digital games and the *Pottermore* website. The *Pottermore* website allows viewers/users

to play games and provides access to content not revealed in the books or films[150]. In addition, the spin-off prequel film, *Fantastic Beasts* and *Where to Find Them*, explores further the fictional world established in the earlier *Harry Potter* films (Jenkins 2007:1), even though the initial lead characters in the *Harry Potter* films are wholly absent from these later films set in the same fictional world.

According to Pratten (2015:8) transmedia storytelling extensions act as a "world-building" method that adds more context and insight into the fictional world and acts as 'proof' of the fictional world's existence. This "world-building" method generates immersion among viewers as they are able to perceive the fictional world as 'reality' or as 'real'[151] (Pratten 2015:8). Mockumentaries (made-up documentaries)[152], made-up news articles or character diaries about a specific scenario (that act as extensions), add background to the narrative and act as proof of the fictional world's existence (Rutledge 2012:11)[153]. The series, *Breaking Bad* incorporated a website www.savewalterwhite.com that provides the viewer with more information about the character, Walter White and 'his' journey with cancer. The website is presented in such a manner as to make viewers believe it was created by White's son to raise funds for his father's medical bills (Radulovic 2018:1).

Another example is the television series *Parks and Recreation* (2009) and *The Office* (2005). Both series make use of websites as transmedia storytelling extensions that lead the viewers to a fictional representation of the fictional world (Radulovic 2018:1). *Parks and Recreation's* (2009) website resembles a real website for a small town and contains bios, galleries, and maps of the 'city' and different 'departments within the city', for example, the 'Fire Department' (Radulovic 2018:1). *The Office* is a series that portrays

[150] Individuals engaging with transmedia storytelling extensions can either be seen as viewers of users. Viewers are individuals that only watch transmedia storytelling extensions for example the films, series, theatre performances or animation shows, whereas users participate and engages with the transmedia extensions for example playing video games or partaking in fan culture.
[151] Generating immersion through providing proof of the fictional world will be discussed further in section 4.5.
[152] Mockumentaries are fictional story lines or worlds that are captures in a documentary style to create the illusion of a 'real world' and the documentation of 'real events' (Mckittrick 2019:1).
[153] When referring to realism in this context I refer to making the narrative seem more 'real' or closer to reality. The context in the different extensions creates the illusion that its fictional world is real and provides background information, photos or maps as evidence as this fictional world's existence.

the life of ordinary people at a paper company called Dunder Mifflin. Viewers are able to visit the website after it is introduced by one of the characters (Ryan) in an episode where he launches the website. The website looks like a legitimate corporate company and viewers/users are even able to buy a ream of Dunder Mifflin paper. The incorporation of different transmedia storytelling extensions (fictional websites), provide viewers/users with additional information regarding the fictional world, thus enabling viewers/users to form a connection with the fictional world (Radulovic 2018:1). These transmedia extensions also allow viewers/users to believe that the fictional world 'really' exists and is 'real'. Allowing viewers/users to interact with the different transmedia storytelling extensions and even being able to buy actual products within the fictional world (Dunder Mifflin paper), enables viewers/users to become participants and become part of the fictional world (Radulovic 2018:1).

Transmedia storytelling is thus focused on the fictional world of a particular story – or "coordinated entertainment experience" – and further develops the fictional world through extensions of narrative told on different media platforms (Jenkins 2013:1). These different contents and contexts can be read against each other to make sense of the larger narrative phenomenon. The extension provides more background, context and information about characters, which in turn contributes to the supposed realism of the fictional world. The 'sense of realism' can also be generated through allowing participations among viewers/users. Participation in transmedia storytelling will be discussed below (Jenkins 2013:1).

4.1.2 Participation in transmedia storytelling

Different transmedia storytelling extensions enable the fictional world to enter a public space (for example, websites or social media platforms) and give viewers/users access to the fictional world that enables them to further develop the fictional world (Weijdom 2016:1). Sullivan (2013:191) asserts that transmedia storytelling not only provides viewers/users with different transmedia storytelling exertions but also permits them to enact aspects of the narrative. Viewers/users are often invited and encouraged to become

co-writers and help develop further the narrative (Weijdom 2016:1). Participation among viewers/users can take place either through digital media; for example, video games and social media platforms or through other media forms that do not consist of digital media, for example, a board game.

Different transmedia storytelling extensions, for example, board games and video games can also create an 'additional transmedia storytelling extension' when viewers/users develop the narrative further (Jenkins 2013:2). The narrative expands through conversations arising from questions asked within the games, and as individuals provide their own experience and interpretation of certain scenes within the specific franchise. These interpretations and discussions permit viewers/users to develop the narrative further and form a connection with the fictional world. Jenkins (2013:2) refers to viewers participating and becoming co-writers in the same light as children playing and acting out their favourite story or playing with the action figures from a specific superhero franchise, often adding extra events and plots to the original story.

Some transmedia storytelling extensions enable viewers/users to participate in fan culture, thereby also developing the narrative further (Sullivan 2013:191). Participating in fan culture enables viewers/users to gather and search for dispersed pieces of text and concluding how they all fit into the plot. Social media platforms (for example, *Facebook* and *Instagram*) allow viewers/users to come together and analyse and discuss a specific franchise thus participating in fan culture and allowing the fictional world to develop further (Sullivan 2013:191). For example, the South African television series on *ShowMax*, *Tali's Wedding Diary* (2017) and *Tali's Baby Diary* (2021) are mockumentaries that follow the everyday life of the character Tali as she plans her wedding (*Tali's Wedding Diary*) and becomes a first-time mother (*Tali's Baby Dairy*). The character Tali, also has her own *Facebook* and *Instagram* page with which viewers/users are able to interact. As the character exists on different social media platforms, viewers/users are able to interact

with the character and the fictional world, thus developing further the fictional world[154]. Viewers/users are even able to have conversations among one another on these selective transmedia storytelling extensions and discuss the fictional world (Sullivan 2013:191).

Jenkins (2011:2) asserts that transmedia storytelling enables viewers/users to revisit the fictional world and explore further the fictional world. Transmedia storytelling according to Jenkins (2011:1) enables viewers/users to share information and experiences and 'solve problems within the fictional world or discuss matters regarding events that happen within the fictional world (Jenkins 2011:2)[155]. The problem solving can refer to viewers/users gathering clues and information received from different extensions and discussing hypothetical solutions and scenarios that characters might encounter. An example of this can be seen in the ABC television drama *Lost*, that shows a map of the island, which viewers/users digitise and place on the internet, in order to gather more information about the fictional world and provide hypothetical solutions for the characters, thus developing further the fictional world (Jenkins 2011:2).

When creating a hypothetical medial, immersive theatre production, transmedia storytelling can be used to provide the audience member with additional information regarding the fictional world (see Chapter Five). Upon arrival, audience members could receive a broadcast message providing them with information regarding the performance, as well as setting the tone for the performance. Audience members could receive a friendly request from the live character within the production and should be able to interact with the character, thus creating a sense of liveness among audience members. I discuss the notion of liveness in transmedia storytelling next.

4.2 Intermediality in transmedia storytelling

[154] Sullivan (2013:191) asserts that participating in fan culture stimulates interaction, cooperation and collaboration that creates a public desire to interact with the fictional world that enhances the role as a participant and acts as an extension of the fictional world.
[155] Sharing information and solving problems on social media platforms are seen as collective intelligence and is used to further develop the fictional world. Collective intelligence is developed by Pierre Levy and refers to a new social structure where people are able to come together with the use of technology.

When looking at the media relation within transmedia storytelling, transmedia storytelling can also help to further interpret the different intermedial relations between media and identify individual media modalities (Elleström & Salmose 2020:6). As transmedia storytelling consists of different transmedia storytelling extensions (that contain different segments of narrative) across different media, transmedia storytelling consists of multiple intermedia relations (2020:6).

Jenkins (2009:1) asserts that although transmedia storytelling contains elements through creating a bridge for different media, adaptation takes the narrative and re-presents the narrative onto another medium, instead of distributing different segments of the same narrative on different mediums (Jenkins 2009:1). In the process of adaptation, some elements of the narrative might get lost in the process of changing from one medium into another medium. Transmedia storytelling, however, is able to expand the narrative onto different media that act as a "world-building process" that is able to contribute towards the story as a whole (Jenkins 2011:1). Ryan (2016:8) agrees that there is in fact, a difference between adaptation and transmedia storytelling and further states that one cannot exclude the re-telling of narrative onto different media. Transmedia storytelling is dependent on the re-telling of certain elements of narrative onto different media, as it contributes towards the story as a whole and allows viewers to make sense of the story as a whole (Ryan 2016:8).

Elleström and Salmose (2020:6) link transmedia storytelling to Ryan's (2004) concept of transmedial narratology. Transmedial narratology is focused on different relations between transmedia storytelling extensions (Ryan 2016:8). Transmedial narratology tries to identify how different transmedia storytelling extensions contribute and link together, how media modalities influence the transmedia storytelling extensions told on those media; how the narrative can travel across media, as well as how the media relations affect the different segments of narrative (Ryan 2016:8)[156]. As transmedial narratology

[156] Transmedial narratology also focus on the effect transmedia storytelling has on the viewers/users, through identifying how these fictional worlds can, for example, turn into cult narratives and how viewers

focuses on the different media modalities within transmedia storytelling, the notion of transmedial narratology will be used to identify the intermedial relations within transmedia storytelling.

Ryan (2004:6) states further that transmedia storytelling should rather be understood in the context of transmediation in the sub-domain of transmediality, where narrative can be seen as a media characteristic that is significant enough to be observed and transmediated into different mediums (Ryan 2004:6). Narrative can include different types of media that share some of the same narrative traits that contribute to the story as a whole. Thus, transmedia storytelling is the transmediation of narrative that is represented in other media to contribute to the story as a whole, despite being extended to other media (Ryan 2004:6). According to Elleström and Salmose (2020:6), the transmediation of narrative is common in everyday communication and can also occur in more complex systems; for example, educational systems, research systems, legal processes, art and entertainment and even religious systems.

According to Elleström and Salmose (2020:6), transmedia storytelling is able to help identify the intermedial relations of media through being able to distinguish between different media modalities (2020:6). Transmedia storytelling can distinguish between different intermedial relations as transmedia storytelling is the transmediation of a combination of different, represented segments of media modalities. An example of intermedial relations is the *Star Wars* franchise that consists of numerous media modalities that together form an overarching major media product (Ryan 2004:14). Different mediums for example books, films, video games and theatre productions are used to create transmedia storytelling extensions that contain segments of narrative that all together form part of the narrative phenomenon. Through exploring the different transmedia storytelling extensions used in order to create the fictional world and recognising the different media, one is able to intensify different intermedial relationships within transmedia storytelling.

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relate and interact with these cult narratives (Ryan 2016:8). This study will only use the transmedial narratology to identify the intermedial relations within transmedia storytelling.

4.2.1 Mixed realities in transmedia storytelling

Transmedia storytelling also creates different realities through multiple extensions that can be read up against one another to create mixed realities. As discussed in Chapter Three, mixed realities occur when audience members are able to be present within different realities (Weijdom 2017:8). Transmedia storytelling creates mixed realities, as each transmedia storytelling extension consists of different temporal and spatial qualities which create different realities that can be compared to one another, thus creating mixed realities. For example, different narratives of the *Lord of the Rings* franchise – the *Lord of the Rings* books, films, board games, PlayStation and computer games – all exist in their own time and place. As each transmedia storytelling extension consists within its own time and space, when read up against one another creates different representations of the same character within different times, spaces and even mediums. An apposite example is seeing different representations of the character, Frodo Baggins (in the three different films or as an avatar in a video game). When all these extensions that consist of different temporal and spatial qualities are read up against one another, mixed realities are formed.

Another example of mixed realities through the use of transmedia storytelling can be seen in the series of *Speakeasy Dollhouse* performances, created and produced by Cynthia von Buhler and Russell Farhang (Green 2017:40). Although the performances are seen more as immersive theatre, the performance commences with a series of emails that contain actual news articles regarding the Dollhouse and a password that audience members should present when entering the door to the performance (Green 2017:40). These news articles show actual footage of the real people and explain the events that took place. The articles give audience members insight into how the actual people and the house looked. Audience members are then able to draw on information collected in the articles and apply it to the performance space. This performance uses transmedia storytelling in order to create mixed realities within the performance and places the audience members between the actual event that was documented and the live

performance (Green 2017:40). As discussed in Chapter Two, the use of mixed realities allows audience members to question what reality is real: the news articles that consist of the real people and events that took place or the live performance that acts out the events that are seen as 'reality', thus allowing immersion through the three-pole mode of presence (discussed below).

Transmedia storytelling helps to identify intermedial relations through identifying different types of media in transmedia storytelling extensions and to distinguish between different types of media. As the transmediation of narrative can be identified, transmedia storytelling permits one to locate the intermedial relations. It can thus be argued that the different transmedia storytelling extensions can be read up against one another, in order to create mixed realities that allow viewers/users to be in between different realities and immersed. Immersion in transmedia storytelling will be discussed below.

4.3 Immersion in transmedia storytelling

The section below describes and discusses how immersion exists within transmedia storytelling. In order to do so, Nilsson, Nordahl and Serafin's (2016) three views of immersion and views of presence in relation to immersion, will be used to identify the different levels of immersion within transmedia storytelling.

As mentioned in section 4.3.1, transmedia storytelling extensions can create mixed realities when read up against one another. These mixed realities can be used to generate immersion among viewers/users, through viewers/users being immersed within a represented reality or through shifting between the different realities. Viewers/users are immersed within a represented reality (a transmedia storytelling extension) through narrative immersion, challenge-based immersion or system immersion. Immersion is also generated through place and plausibility illusion that enables viewers/users to be present within a represented reality (a transmedia storytelling extension). The constant shift between different realities is also able to generate presence among viewers/users through the three-pole mode of presence, presence as a three-layered or bio-cultural

mechanism. Presence and the three-dimensional model of attention will not be discussed as it does not pertain to transmedia storytelling, and focuses only on a viewer's/user's experience within a virtual environment.

4.3.1 System immersion in transmedia storytelling

System immersion in transmedia storytelling is possible as viewers/users are able to immerse within the fictional world through the use of technology (Nilsson *et al*. 2016:129). A smart phone can be used to access different transmedia storytelling extensions as viewers/users are able to use their smart phones to browse through characters' social media accounts and even interact with the characters within the fictional world. As such, viewers/users are able to find different transmedia storytelling extensions and interact with the fictional world through the use of technological devices. These devices altogether generate a form of system immersion as they enable viewers/users to invest their time and attention in the fictional world. Narrative immersion within transmedia storytelling will be discussed next.

4.3.2 Narrative immersion in transmedia storytelling

Transmedia storytelling immerses viewers/users through narrative immersion, as the viewers/users are able to explore the different transmedia storytelling extensions. Thus, viewers/users are able to immerse within the fictional world. As discussed in Chapter Two, narrative immersion takes place when users search for information about characters, objects and narrative within a fictional world (Adams & Rollings 2006:110). These different transmedia storytelling extensions are able to immerse viewers/users within the fictional world, as the extensions enable viewers/users to find additional information regarding the fictional world, thereby perceiving the fictional world as 'reality' or 'the real'. Narrative immersion in transmedia storytelling takes place when viewers/users are able to gather all these different transmedia storytelling extensions and read them up against one another in order to make sense of the narrative as a whole (Adams & Rollings 2006:110).

Through examining different extensions of narrative, viewers/users are able to generate narrative immersion (spatial immersion, temporal immersion and emotional immersion).

Spatial immersion is generated through transmedia storytelling extensions that provide the viewer/user with more information about the fictional world, for example, websites providing additional information about the fictional world; maps of the fictional world or fictional news articles that enable viewers/users to form a connection with the fictional world and perceive it as 'reality', thus being immersed within the fictional world. Temporal immersion is generated through viewers/users being able to explore the different transmedia storytelling extensions in order to find out what is going to happen next in the entertainment experience. Some transmedia storytelling extensions create emotional immersion as the extensions provide additional information about characters; for example, providing viewers/users with the characters' diaries, flogging videos about the characters or the characters' social media accounts. These extensions allow the viewer/user to connect with the character and form an emotional connection with them, thus allowing emotional immersion to take place. The inclusion within the fictional world and connection with the fictional world or with characters within the fictional world, enables viewers/users to feel part of the fictional world and be immersed within that world (Ryan 2003:122). Challenge-based immersion within transmedia storytelling will be discussed next.

4.3.3 Challenge-based immersion in transmedia storytelling

Challenge-based immersion takes place when viewers/users are able to interact with the fictional world and become part of the fictional world. As discussed in Chapter Two, challenge-based immersion takes place when users are invited and encouraged to participate, as well as contribute to the fictional world and thus become co-writers and part of the fictional world (Ermi & Mäyrä 2005:43). Challenge-based immersion takes place as viewers/users interact with fellow characters and spaces of objects within the fictional world. This participation enables viewers/users to direct their attention towards the fictional world, thereby feeling part of the fictional world and immersed within it.

Allowing viewers/users to participate within certain transmedia storytelling extensions generates challenge-based immersion. An example is the film *Apollo 13* where one of the transmedia storytelling extensions leads viewers/users to an email address. Viewers/users can use the email address for sending and receiving additional information regarding the film (Jenkins 2013:2). Another example is the live performance of the *501st Legion*, an international organisation where *Star Wars* fans dress up as characters within franchise and re-enact scenes from the franchise (Fiorelli 2015:1). Viewers/users are invited to dress up in costumes and participate in the actions facilitated by actors who are also in character, where re-enactments of certain scenes within the franchise are performed[157]. Viewers/users are enabled to direct their attention towards the re-enactment and thereby become immersed within the fictional world. Presence within transmedia storytelling will be discussed next.

4.3.4 Place and plausibility illusion in transmedia storytelling

Permitting viewers/users to interact within certain transmedia storytelling extensions and be present within that reality generates immersion through place and plausibility illusion. Allowing viewers/users to present within a represented reality, through either re-enacting a scene or commenting or liking a social media account of the fictional world/characters as one would in the physical present, generates presence through plausibility illusion. It can also be argued that transmedia storytelling extensions, for example, fictional news articles or fictional websites about the fictional world also generate illusion of place and plausibility illusion, as it seems 'real'. Thus, viewers/users are able to interact with the transmedia extensions as one would in reality.

4.3.5 The three-pole mode of presence in transmedia storytelling

[157] Other examples of challenge-based immersion within transmedia storytelling extensions includes board games and video games. Challenge-based immersion immerses users into the fictional world through allowing them to perform tasks and overcome obstacles. Intense focus and attention are required to overcome challenges which enables users to place all their attention towards the fictional world which immerses them.

The mixed realities within transmedia storytelling generate immersion among viewers/users as they are able to feel present through the three-pole mode of presence. As discussed in Chapter Two, three-pole mode of presence is generated when users are able to shift between physical reality, mental imagery space and the virtual reality (Biocca 2003:5). As viewers/users compare the different transmedia storytelling extensions (with different realities) to one another, they are able to shift between the different realities represented within the different transmedia storytelling extensions and question their physical reality. Being able to shift between the different realities creates immersion, as the viewers'/users' presence is heightened, enabling them to be present within the represented realities, as well as the physical reality.

4.3.6 Presence as a three-layered, bio-cultural mechanism in transmedia storytelling

Presence as a three-layered bio-cultural mechanism is generated when transmedia storytelling extensions are read up against one another. For example, viewing a character's social media account within a production where the same character is present, can create mixed realities, enabling viewers/users to be in-between different realities. These mixed realities generate proto presence that enable viewers/users to distinguish between the core consciousness and extended consciousness, thus placing emphasis on the bodily here and now and generating immersion as users' sense of presence are heightened.

Immersion can thus also be generated through allowing viewers/users to be present within either transmedia storytelling extensions or through shifting between the different realities created through reading up different transmedia storytelling extensions within the same time and space. Viewers/users are able to be present within a transmedia story extension that generates narrative immersion, challenge-based immersion or place and plausibility illusion. Through constantly shifting between realities when reading different transmedia storytelling extensions up against one another, enables viewers/users to shift

between different realities and experience the three-pole mode of presence as a three-layered, bio-cultural mechanism. It is also important to note that system immersion is also generated when viewers/users are able to find and explore transmedia storytelling extensions that require the use of digital media. Presence is supported by liveness.

4.4 Liveness in transmedia storytelling

Liveness in transmedia storytelling takes place through allowing the space in which the fictional world exists and the space of the viewers/users to come together. According to Weijdom (2016:1), most individuals are constantly connected to one another through social media platforms. This connection between individuals and technology should also be incorporated into the performance space, allowing the performers, audience members and the production to connect on social media platforms (Weijdom 2016:1). Social media platforms allow multiple performance and audience locations to come together at the same time through sharing a connected experience through social media platforms, allowing actors and audience members to become participants (Weijdom 2016:1). These connections can be visible with the use of different media platforms that enable audience members to participate, and even contribute to the narrative.

According to Couldry (2004:4), the notion of liveness can expand across media and identify two forms of liveness, online liveness and group liveness. Transmedia storytelling is able to generate online liveness and group liveness. Online liveness is similar to the traditional notion of liveness (having access to an event as it unfolds, and experiencing the event live, such as watching the news that is broadcast live on television) and is only seen as an extension of traditional liveness that exists on the internet. Online liveness takes place when a group of viewers is able to access a number of different “transmissions” and has a synchronous online engagement (Couldry 2004:3). Synchronous online engagements occurs when individuals are able to access videos, graphs, articles, websites, discussion boards or social media platforms at any given time and location (Sebastein 2021:1). Some transmedia storytelling extensions generate online liveness as viewers/users are able to simultaneously access different transmedia

storytelling extensions (on the internet) at any given time or place and experience the events as they unfold live (Couldry 2004:6). For example, the reality television show *Big Brother* that has created a live stream channel where viewers are able to access and watch live events within the show unfold.

Group liveness occurs when groups of viewers/users are able to communicate with one another through the use of their phones or computers that are able to provide access to different social media platforms, for example: *WhatsApp*, *Facebook* or *YouTube* (Couldry 2004:6), allowing viewers/users to stay connected and communicate with one another, although they are not in a shared location. Some transmedia storytelling extensions are able to generate group liveness, as viewers/users are able to participate in fan culture, enabling live interaction with either the fictional world or other viewers/users. Being able to connect with communities and other viewers/users creates a sense of liveness among viewers/users as they are able to feel connected with the device, fictional world or one another. Viewers/users are able to share their experiences with one another or interact with the fictional world, thus experiencing a sense of liveness.

Online liveness in transmedia storytelling thus involves certain transmedia storytelling extensions that broadcast live events to viewers/users and allows multiple performance and viewer/user locations to come together at the same time. It is this online, connected experience, in this instance, that creates liveness among viewers. Group liveness occurs in transmedia storytelling when viewers/users are able to participate on the level in which they choose to participate, and even contribute to the fictional world. Viewers/users thus share a connected experience on social media platforms and participate in fan culture creating liveness among viewers, as they are able to connect with the fictional world and one another.

4.5 Conclusion

This current chapter discussed the notion of transmedia storytelling extensions and how the notion of transmedia storytelling can be used to generate immersion and liveness

amongst its viewers/users. Transmedia storytelling is essentially different transmedia storytelling extensions that contain segments of narrative, told in different mediums. These different contexts can be read against one another to make sense of the large narrative phenomenon. Transmedia storytelling extensions provide more background, context and information about characters that in turn, contribute to the realism of the fictional world.

As discussed in section 4.3, extensions used in transmedia storytelling predominantly exist on digital platforms and make use of transmediality to extend the narrative onto different media platforms. Intermedial relations are exposed when the narrative transmediates onto different extensions. Transmedia storytelling can even be used to identify individual transmediation which is important when identifying intermedia relations. It can clearly distinguish between the general characteristics of qualified media types and media properties that belong to media products. As these different extensions with their own temporal and spatial qualities can be read up against one another, mixed realities are formed. This enables the viewers/users to be immersed through the three-pole mode of presence. Viewers/users are able to shift between the different realities of the extensions and thus be immersed.

As discussed in section 4.5, transmedia storytelling is also able to immerse viewers/users on different levels through narrative immersion, challenge-based immersion and system immersion. Narrative immersion allows viewers/users to explore further the fictional world and become co-authors, form relations with the characters' fictional world and thus become part of it. Challenge-based immersion occurs as some extensions allow viewers/users to focus all their attention on performing tasks and overcoming obstacles that cause them feel included in the fictional world and immerse them. System immersion through technological devices, such as a smartphone enables viewers/users to become part of the fictional world.

Transmedia storytelling also generates online liveness and group liveness among viewers/users. Online liveness is generated through allowing viewers access to the

fictional world at any time and form any location. Viewers are able to access information of the fictional world as it is being broadcast or uploaded to the internet. Group liveness is the level on which viewers/users choose to participate, and even contribute to the fictional world. Viewers/users are able to connect with the fictional world and one another, allowing multiple performance and audience locations to come together at the same time, forming a connected experience.

4.6 Framework for producing a hypothetical medial, immersive, theatrical production

The next section of this chapter will discuss the information gathered from Chapter Two, Chapter Three and Chapter Four to create a framework for producing a hypothetical medial, immersive, theatrical production. See table below that demonstrates the outline of the framework used to create a hypothetical medial, immersive, theatrical production.

Table 1: Outline of the framework used to create a hypothetical medial, immersive, theatrical production

Three categories of immersion:	
System immersion	System immersion is digital technology that creates a virtual environment and presents virtual reality users are able to enter and interact with. The technology within system immersion mediates the immersive experience for users (Slater 2003:3). The more advanced the technology is, the greater the level of immersion will be for the user (2003:3).
Narrative immersion	Narrative immersion refers to being mentally absorbed by the fictional world's story, characters (within the fictional world) and wanting to know how events unfold (Adams & Rollings 2006:110). Narrative immersion can be divided into three sub-categories: temporal immersion, spatial immersion, and emotional immersion. • **Temporal immersion** is the user's desire to know how events unfold and what is going to happen next. • **Spatial immersion** is the user's response within the space and the relationship to that space. • **Emotional immersion** is the user's emotional attachment to the fictional world/virtual reality and emotional response to the characters and objects within that space (Ryan 2008:7). Temporal immersion, spatial immersion and emotional immersion allow users (i.e. audience members) to feel part of the fictional world or virtual reality through forming a relationship with space/environment, characters, objects or events within the virtual or fictional world, and thus being immersed within the space or environment[158].

[158] As mentioned before, space can be seen as the physical space audience members are able to enter that creates a fictional world and environment is highly advance technology used to create a virtual reality audience members are able to enter.

Challenge-based immersion	Challenge-based immersion is the user's response to challenges and refers to the mental absorption when facing challenges or overcoming obstacles (Ryan 2008:9). Users are encouraged to use their intellect or sensorimotor skills to overcome challenges or obstacles. Challenge-based immersion can be divided into two sub-categories. • **Strategic immersion** occurs when the user forms strategies to overcome obstacles and perform tasks. • **Tactical immersion** occurs when the user in playing the game, is continuously inundated with obstacles (Ryan 2008:9). Challenge-based immersion generates immersion as users are able to engage with the fictional world or virtual reality through participatory action (for example, in performing tasks or overcoming obstacles). Through engaging and participating in the fictional world or virtual reality, users become present within the space and may see and experience it as 'real' or 'reality' and likely facilitate immersion.
Four views of presence in relation to immersion:	
The three-pole mode of presence	The user can experience the three-pole mode of presence when spatial attention shifts between the virtual space, mental imagery space and physical space which permit the user to develop an intimate relationship with the spaces (Biocca 2003:7). Users are able to feel present in one of the represented spaces (virtual space, mental imagery space or physical space) or through the constant shift between the virtual space, mental imagery space and physical space that heightens reality through allowing the user to constantly question their physical presence. When the user feels a sense of presence (SoP) within all the represented spaces or through the constant shift between realities, they are immersed as their sense of presence is heightened (Ryan 2003:122).

Presence and the three-dimensional model of attention	For a user to be present in a virtual environment, sensations similar to reality should be re-created within a virtual environment (Waterworth & Waterworth 2001:12). Waterworth and Waterworth (2001:211) have created a model in order to measure the user's attention towards the virtual environment namely, focus of attention, locus of attention and sensus of attention. • **Focus of attention** occurs when the user primarily attends to the virtual reality or physical reality and becomes present with the represented reality. • **Locus of attention** occurs when the user allocates their attention to either the virtual environment or physical environment. • **Sensus of attention** is the conscious stimulation the user experiences within a virtual environment (Waterworth & Waterworth 2001:211). Users are immersed within the virtual environment when they are able to have focus of attention, locus of attention and sensus of attention within a virtual environment.
Presence as a three-layered, bio-cultural mechanism	Presence has three distinguishable layers: proto presence, core consciousness and extended consciousness. • **Proto Presence** is an unconscious embodiment that enables one to distinguish between the self and non-self through kinaesthetic information of the body in a surrounding environment[159]. • **Core consciousness** is the representation of the physical environment where the self is able to identify the present through sensory experiences. • **Extended consciousness** is the ability to visualise possibilities beyond the current situation.

[159]According to Riva, Waterworth and Waterworth (2004:407) a high degree of system immersion such as virtual environments are able to generate proto presence as it is able to allow audience members to distinguish between proto presence, core consciousness and extended consciousness.

	Proto presence places emphasis on the bodily here and now (materiality) that enables core consciousness and extended consciousness. When all three of these layers (proto presence, core consciousness and extended consciousness) integrate, the highest level of presence within the user is achieved as users' sense of presence is heightened, enabling the user to be immersed (Waterworth & Waterworth 2004:402).
Presence and the illusion of place and plausibility	The sensation of presence occurs when the user has the same subject experience and realistic response towards the virtual stimuli, as in unmediated stimuli, thus seeing it as 'reality' or 'the real' that signifies immersion (Slater 2009:3550). • **Place illusion** refers to the user's experience of being present in the fictional world, despite knowing that they are not physically present within the fictional space. • **Plausibility illusion** is the illusion that the event unfolding is real, even though one knows it is not (Rovira 2009:43). In facilitating presence, place illusion and plausibility generate immersion among users as they are able to perceive the fictional world or virtual reality as the 'real' or 'the reality' and feel present within the space, thus being immersed (Slater 2009:3550).

Table 1.1: Immersion in a hypothetical medial, immersive, theatrical production

Immersion	**Intermediality**	**Transmedia storytelling**	**An intermedial immersive theatrical production**
System immersion	Media that creates virtual realities; for example, VR headsets and VR cave systems that generate system immersion can be placed in the theatre	It can be argued that intermediality is seen as the primary system immersion mechanism, and transmedia storytelling as the secondary system	Audience members can immerse within the production when entering the VR cylinder that creates a virtual environment. The VR cylinder may immerse audience members through

	space to create an intermedial performance. As the theatre space shows the process of how technology re-mediates instead of only immersing audience members, it creates mixed realities and immerses audience members on different levels (the three-pole mode of presence and presence as a three-layered, bio-cultural mechanism).	immersion mechanism. System immersion in transmedia storytelling is possible as audience members are able to immerse within the fictional world through the use of technology; for example, a smartphone in order to access different transmedia storytelling extensions.	allowing them to enter a virtual environment that consists of a 360-degree screen that projects a three-dimensional image around them. Audience members are also given three-dimensional glasses that allow the space and objects within the space to have depth and proportion. Audience members can physically explore in the virtual environment and interact with a virtual character. Thus, they can see the virtual environment as the 'real' or 'the reality' and becoming immersed within the space.
Narrative immersion	Narrative immersion can occur when audience members are able to immerse in represented realities within the intermedial performance; for example, the fictional world or virtual reality. Audience members are able to immerse through temporal immersion, spatial immersion and emotional immersion[160].	Narrative immersion takes place when viewers/users are guided and encouraged to find different segments of narrative in various transmedia storytelling extensions[161]. When these different segments of narrative are read together, viewers/users are immersed in the fictional world.	Narrative immersion can engross audience members on different levels, through permitting them to explore the virtual environment and through transmedia storytelling. • **Temporal immersion** may be generated through allowing audience members to explore the virtual environment within the live performance. Audience members are able to walk around within the VR cylinder,

[160] It is important to note that the level of temporal immersion, spatial immersion and emotional immersion will depend on the type of performance.
[161] As mentioned in Chapter Four, viewers in transmedia storytelling refers to individuals that watch different segments of narrative of different platforms. When the individuals start partaking in transmedia storytelling extensions such as fan culture and video games they are seen as users.

		Different transmedia storytelling extensions provide viewers with additional information regarding the characters, the fictional world and unfolding events. This additional information regarding the fictional world generates temporal immersion, spatial immersion and emotional immersion, thus allowing the viewer to form a relationship with the fictional world and perceive it as 'real' or 'the reality'.	interact with the live character, as well as the virtual character, and even engage with objects within the live performance in order to find out how events unfold. Audience members can explore the characters (present within the live production) *Instagram* and *Facebook* page, in order to find additional information regarding the fictional world so as to know how events unfold. • **Spatial immersion** can be generated through enabling audience members to explore the virtual environment and walk around in the VR cylinder. Audience members can engage with objects within the space, thereby forming a relationship with the fictional world and feeling part of that world and immersed in it. The *Facebook* and *Instagram* page, as well as the *WhatsApp* broadcast messages and

			news articles can also provide audience members with additional information regarding the fictional world that allows them to form a relationship with that world. The *WhatsApp* broadcast messages and made-up news articles may also allow the fictional world to seem 'real' and as 'the reality', thereby generating immersion. • **Emotional immersion** can be generated through allowing audience members to interact with the virtual character, as well as the live character within the live production. These interactions with the live and virtual character will be of such a nature that it enables audience members to find additional information regarding characters and form an emotional connection with them. The social media accounts (*Instagram* and *Facebook*) of the characters present in the live performance, can provide audience

			members with insight into and additional information about these characters, allowing audience members to form an emotional connection with the characters and feel empathy towards them.
Challenge-based immersion	One of the represented realities within an intermedial performances can generate challenge-based immersion through allowing audience members to interact with the environment or even perform tasks.	Challenge-based immersion takes place when viewers/users participate in transmedia storytelling extensions; for example, participating in fan culture through liking and commenting on social media accounts.	Audience members can interact with the live character and the virtual character within the live production, thus becoming an active participant and 'character' within the fictional world. The live characters will start a live video chat when entering the VR cylinder. The live character will approach the audience member and engage with conversation, allowing the audience member to become part of the live video chat. Challenge-based immersion may also be generated among audience members as they are able to participate in fan culture through commenting on the character (also present in the live production) on the *Facebook* and *Instagram* page. Audience members can engage with the social media accounts from a day before the live performance, up until a week after the live performance. Audience members

			can even reply to a broadcast message sent to them on *WhatsApp* upon entering the VR cylinder.
Four views of presence in relation to immersion:			
The three-pole mode of presence	Mixed realities in intermedial performances allow audience members to shift between different realities. Audience members are able to shift between the virtual space, mental imagery space or physical space. Mixed realities enable audience members to either be present in a represented reality or heighten their reality that enables them to be present in both the physical and virtual environments simultaneously, thus immersing them.	Reading different transmedia storytelling extensions up against one another enables viewers to be in-between different realities. These different realities can either be when the viewer/user views the same character (within the same time and space) on different transmedia storytelling extensions that create different representations of the same character. Immersion is generated as the viewer/user presence is heightened through shifting between different realities within the transmedia storytelling extensions. This enables the viewer to be present within the represented realities, as well as the physical reality.	Placing audience members within the virtual environment where the live character and virtual character interact with each other, as well as the audience member within the same time and space, creates mixed realities. Allowing audience members to access the character (present within the live production), *Facebook* and *Instagram* account can also create different representations (a live and mediatised representation) of the same character, therefore creating different realities. Audience members can be present and immersed within a represented reality (the transmedia storytelling extension with the production; the fictional world with the production; the virtual reality within the production or physical reality) and shift between

			the different realities and be present in both the physical, virtual and fictional environments, thus being immersed by the experience.
Three-dimensional model of attention	Some intermedial performances that consist of virtual realities as one of the represented realities, are able to generate a three-dimensional model of attention among audience members. The three-dimensional model of attention can be achieved when audience members are able to gain focus of attention, locus of attention, and sensus of attention within a represented reality. This generates immersion within the represented reality (realities that consist of virtual realities or the fictional world) in the performance.		The three-dimensional model of attention should be in play when the audience member enters the virtual environment in the live performance and is able to engage with the virtual character within the fictional world and interact with the space, as one would in reality.
Presence as a three-layered bio-cultural mechanism	Intermedial performances consist of a combination of live and mediatised elements that are placed against one another to create mixed realities. These	Reading different transmedia storytelling extensions up against one another, for example, viewing a character's social media account	As the live production consists of live characters and virtual characters interacting with one another and the audience members at the same time within the same space, mixed realities are

	mixed realities generate proto-presence among audience members that enables them to distinguish between the self (core consciousness) and the non-self (extended consciousness) that enables all three layers of presence to present simultaneously. By placing emphasis on the bodily here and now and generating immersion, audience members' sense of presence is heightened.	within a production, where the same character is present, can create mixed realities and enable viewers/users to be in-between different realities. These mixed realities generate proto-presence that enables audience members to distinguish between core consciousness and extended consciousness, thus placing emphasis on the bodily here and now and generating immersion as audience members' sense of presence is heightened.	created. The mixed realities may allow proto-presence among audience members that enables them to have extended consciousness and core consciousness simultaneously, thus generating immersion. The live production combined with transmedia storytelling should also generate presence as a three-layered, bio-cultural mechanism. Audience members can view the live characters on *Facebook* or *Instagram* page while being present within the live production. Thus, this creates a live representation and a mediatised version of the same character. The live video chat with the audience member in it, will also be instantly uploaded to *Facebook* and *Instagram,* thus allowing the audience member to view themselves interacting with the live character and therefore seeing a mediatised version of themselves, as well as the live character within the live performance. These mixed realities can generate the highest level of presence among audience members, thus immersing them as the

			audience members' sense of presence are heightened.
Immersion and the illusion of place and plausibility	Some intermedial performances that incorporate virtual realities are able to generate illusion of space and plausibility illusion at times, and can be achieved within represented realities in an intermedial performance.	Allowing audience members to interact with transmedia extensions as one would in the physical present, can create plausibility illusion. An example of this can be seen as audience members interact with a character through commenting on their *Facebook* and *Instagram* pages.	Illusion of place and plausibility can be generated through allowing the audience member to enter the VR cylinder and interact with the virtual environment, as one would in reality. Audience members can interact with the virtual characters and the live character as one would in real life. The presence of the live character may generate a higher level of plausibility illusion, as the live character makes use of improvisation when addressing the audience members. This allows the conversation to feel even more 'real'. Audience members may also be able to immerse within the fictional world through engaging with the characters' social media accounts from a day before the live performance up until a week after the live performance. Audience members are even able to reply to a broadcast message sent to them on *WhatsApp* upon entering the VR cylinder.

From the information provided in Table 2.1, intermediality and transmedia storytelling can be used to create a medial, immersive, theatrical production that generates immersion among audience members. Through incorporating elements of intermediality and transmedia storytelling into a production, system immersion, narrative immersion and challenge-based immersion can be generated. The incorporation of intermediality and transmedia storytelling can also enable audience members to feel a sense of presence (sop) within the production. Audience members are able to feel present through:

- Three-pole mode of presence and presence;
- three-dimensional model of attention;
- presence as a three-layered bio-cultural mechanism; and
- the illusion of place and plausibility.

Using the framework to create a hypothetical medial, immersive, theatrical production will be further discussed in Chapter Five, and it will be deliberated how intermediality and transmedia storytelling can be used to generate immersion within a production.

CHAPTER FIVE: A FRAMEWORK FOR MEDIAL IMMERSIVE THEATRE

This chapter consists of two sections. The first section discusses what a virtual reality (VR) cave system is. The virtual reality cave system (VR cylinder), situated at the University of Pretoria and used to create a hypothetical immersive theatrical production, will be explained next. This section also discusses how the VR cylinder can be used to create a hypothetical immersive theatrical production. The second section of this chapter will apply the framework discussed in Chapter Four, to the hypothetical medial immersive theatrical production. This will demonstrate how intermediality and transmedia storytelling can be used to create a medial immersive theatrical performance which generates immersion.

5.1. The virtual reality (VR) system

5.1.1. Cave system

A cave system is a VR room that is surrounded by graphical projectors that project three-dimensional images/videos onto the left, right, front and back side, floor and at times, even the ceiling to create a virtual environment[162]. Users are able to enter the virtual environment, walk around the space or even interact with the environment and become immersed (Tarbi 2020:1). Users are usually provided with three-dimensional glasses or VR headsets upon entering the environment which enables the three-dimensional image/video to appear three-dimensional and therefore, creates a virtual reality. Some of the three-dimensional glasses or VR headsets contain tracking devices that adjust the images projected, according to the user's movements within the virtual environment, thereby changing the images according to the user's point of view[163]. Other cave systems

[162]As mentioned before, graphical projectors, also known as three-dimensional projectors, projects three-dimensional objects onto a two-dimensional surface. The projectors use basic visual of an object's shape and creates a map of point that when connected creates a three-dimensional object (Gurnani 2019:1).
[163] Tracking devices can be seen as the users 'eyes' and change the images according to the movement of the user. Thus, being a devise that tracks the user's point of view. Different tracking systems can be used for example, optical systems that make use of light captured in different manners, electromagnetic tracking that uses magnetic fields to position users in space. Mechanical tracking devises such as arms, joysticks, VR sensory headsets that changes the user's point of view (Mechatech 2021:1).

also provide users with mechanical tracking devices that include arms, wands[164], joysticks/VR controllers[165] or data gloves that change the user's point of view and enables the user to navigate the cave system, as well as interact with the environment (Wigmore 2016:1)[166]. These arms, wands, joysticks/VR controllers or data gloves permit users to interact with the virtual reality, through picking up objects or moving them around and performing tasks within the virtual environment. Cave systems can allow multiple users to enter the virtual environment at the same time and share an experience, or one user at a time, depending on the nature of the experience (Tarbi 2020:1).

VR cave systems can be used in a number of different fields; for example, architecture, mathematics, education, archaeology, automotive, medicine and physics. The VR cave system can be used to perform simulations in order to train individuals or predict the outcome of problem solving; for example, VR cave systems are used by certain companies when they manufacture cars. VR cave systems are used to look at the design of the car and test vehicles during the design phase (Tarbi 2020:1).

It is important to note that there are many different types of cave systems and that not all cave systems look and function in the same manner. The VisCube M4, M5 (that consists of four to five screens), the VisCube C4-4KU (that consists of three walls and a floor), VisCube C4-T3, VisCube C4, VisCube C4-T2 and VisCube C4-T3x (see the images below that illustrate some of the different cave systems).

[164] Wands are three-dimensional input devices that allow users to interact with a virtual environment (Gajsek 2021:1).
[165] VR controllers or joysticks are devices users use to help register ones hand and finger movements within a virtual environment (Gajsek 2021:1).
[166] A data glove is an interactive device, resembling a glove worn on the hand, which facilitates tactile sensing (Mechatech 2021:1).

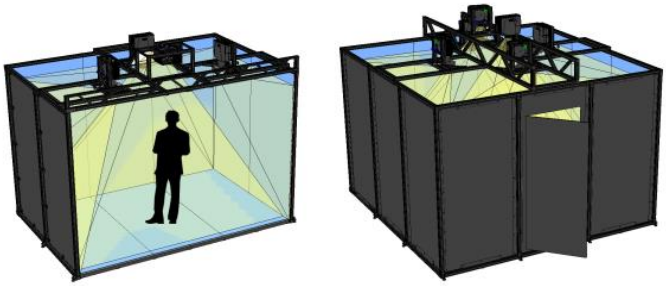

Figure 3: *VisCube M4, M5* (Visbox website, 2020:1)

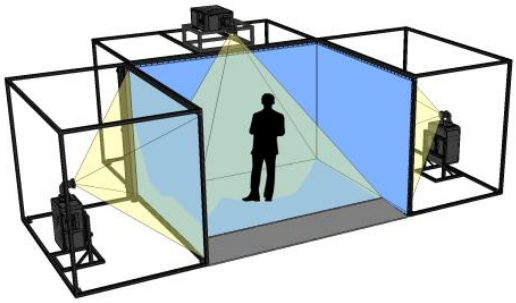

Figure 4: *VisCube C4-4KU* (Visbox website, 2020:7)

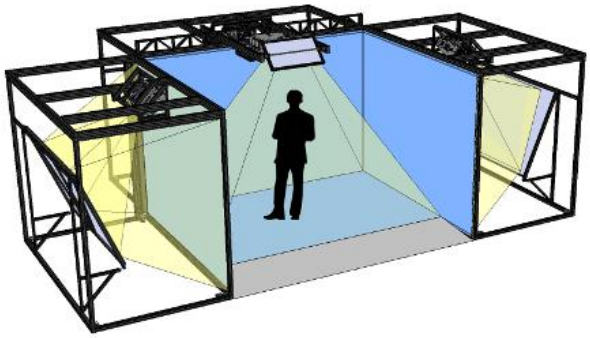

Figure 5: *VisCube C4* (*Visbox* 2020:5) 2020:10)

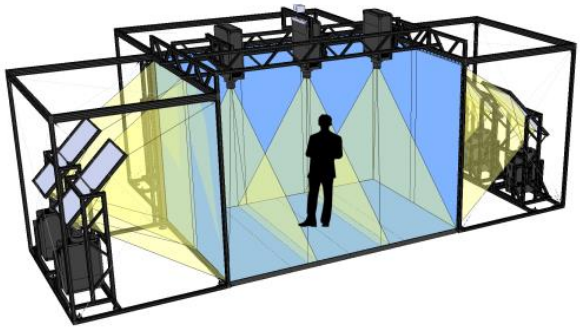

Figure 6: *VisCube C4-T3* (Visbox

Referring to the above figures, it is clear that some cave systems consist of four to five screens (four walls and the floor or four walls, the floor and ceiling) that surround the user, whereas other systems consist only of three to four screens (three walls and the floor). The type of projectors can also vary. The VisCube C4 (Figure C) cave system makes use of rear projection screens (positioned behind the screens and diffuses light through the martial), whereas the VisCube M4, M5 (Figure A) cave system, makes use of front projectors (that reflect light and project the image onto the screens). Most of these cave systems make use of a combination of rear and front projectors; for example, VisCube C4-4KU (Figure B) cave system and the VisCube C4-T3 (Figure D) cave system. All of these different cave systems permit the user(s) to enter the virtual environment and walk around the space, thus providing a highly immersive virtual environment (Visbox 2020:3).

The virtual reality (VR) cave system (VR cylinder) situated at the University of Pretoria will be discussed below.

5.1.2 VR cylinder (situated at the University of Pretoria)

The VR cylinder situated at the University of Pretoria, makes use of a cave system (cave automatic virtual environment) and allows audience members to enter the virtual environment and be immersed[167]. The VR cylinder is situated in the Department of Mining Engineering building at the University of Pretoria[168]. The VR cylinder is a custom-designed cave system and the only one of its kind in South Africa. The VR cylinder is used to create simulations of different real-world scenarios and environments for learning purposes; for example, showing students what an underground mine looks like and how it operates without physically being there (Hicks 2018:1).

The VR cylinder is most similar to the VisCube M4, M5 cave system, as it allows users to enter the virtual environment. Similar to the VisCube M4, M5, the VR cylinder also consists of three-dimensional images/videos that surround the users. The VR cylinder can either project a computer-generated three-dimensional image or play three-dimensional, 360-degree videos (shot with a stereo camera that project three-dimensional images)[169]. Unlike the VisCube M4, M5 cave system, the VR cylinder does not consist of four different screens that surround the audience members; instead it consists of one round 360-degree wall that surrounds the users, thus creating a cylinder. The VR cylinder also does not contain a floor-screen and ceiling-screen and consists only of one 360-degree wall that surrounds the users. The VR cylinder does not contain any screens and

[167] As mentioned in Chapter One, the virtual environment is the technological space that generates a virtual reality. Within the context of the medial immersive theatrical production, the VR cylinder is seen as the virtual environment.
[168] The VR cylinder situated at the University of Pretoria (that will be used during the production), will henceforth be referred to as the ‘VR cylinder’ and not ‘the VR cylinder situated at the university of Pretoria’ or ‘a ‘(VR) cave system’.
[169] As mentioned before in Chapter One, Stereo camera is also known as three-dimensional cameras. The camera consists of two or more lenses with separate image sensors or film frames for each lens that simulate human binocular vision and creates three-dimensional images (Christodoulou 3013:3). The use of the stereo came will be discussed later on in this section.

consists only of a four-metre tall, 360-degree, white wall that projects three-dimensional images/videos onto the VR cylinder's wall (see the image below).

Figure 7: University of Pretoria VR cylinder's screen.

Three-dimensional glasses are provided to users when entering the VR cylinder and enables the three-dimensional video to appear three-dimensional. Similar to the VisCube M4, M5 cave system the VR cylinder also makes use of front projectors that project images/videos onto the wall of the cave system. The VR cylinder consists of five graphical projectors that project three-dimensional images/video onto the 360-degree walls of the VR cylinder. Graphical projectors, also known as three-dimensional projectors, project three-dimensional objects onto a two-dimensional surface (Gurnani 2019:1). The projectors use basic visuals of an object's shape and create a map of points, that when connected, create a three-dimensional object (Gurnani 2019:1). The graphical projectors are situated at the ceiling of the VR cylinder and positioned in such a manner that it is able to cover the entire 360-degree wall and project an image on it (see the image below).

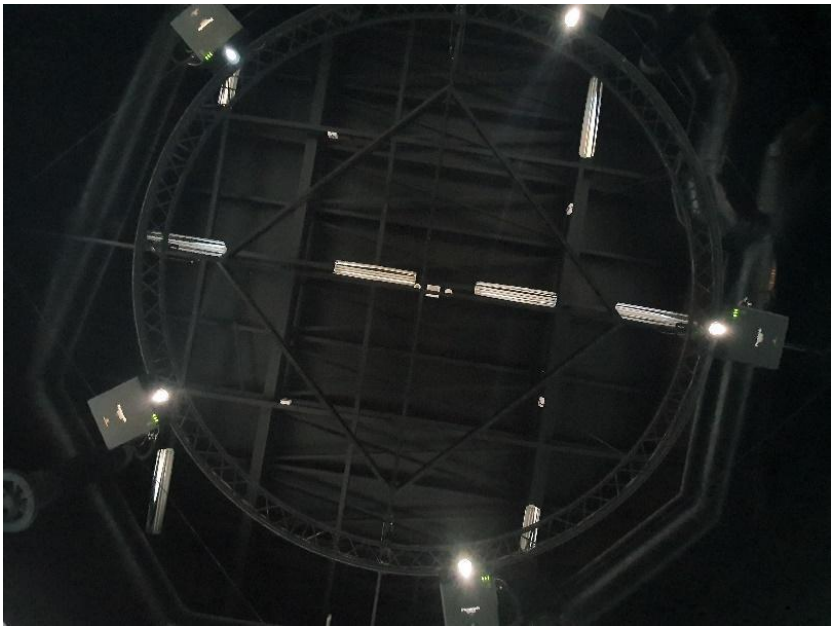

Figure 8: University of Pretoria VR cylinder's projectors

All five graphical projectors project a three-dimensional image/video onto the 360-degree wall of the VR cylinder. A VUZE+ stereo camera is used to capture a three-dimensional image/video. The VUZE+ stereo camera is a three-dimensional, 360-degree angle VR camera that is able to capture full spherical videos and photos (Muklashy 2019:1). The VUZE+ stereo camera consists of eight cameras in a square shape (two cameras on each side) that capture a 360-degree image/video when stitched together. The images/videos need to be stitched together through editing software (HumanEyes VR Studio software), in order to create 3-dimensional images/videos (Muklashy 2019:1). Each side of the stereo camera consists of two camera lenses that capture the left and right side of one's eye. When the images of both camera lenses (the right and left camera lens) are placed on top of each other (stitched together), it creates a three-dimensional image/video. The image below is a photo of the VUZE+ stereo camera used.

Figure 9: Image of the VUZE+ stereo camera.

The three-dimensional video is projected onto the 360-degree walls of the VR cylinder, thus creating a virtual reality. Users are able to enter the virtual environment and move around within the virtual environment, thus being surrounded by the virtual reality. See the illustration below that shows the VR cylinder situated at the University of Pretoria.

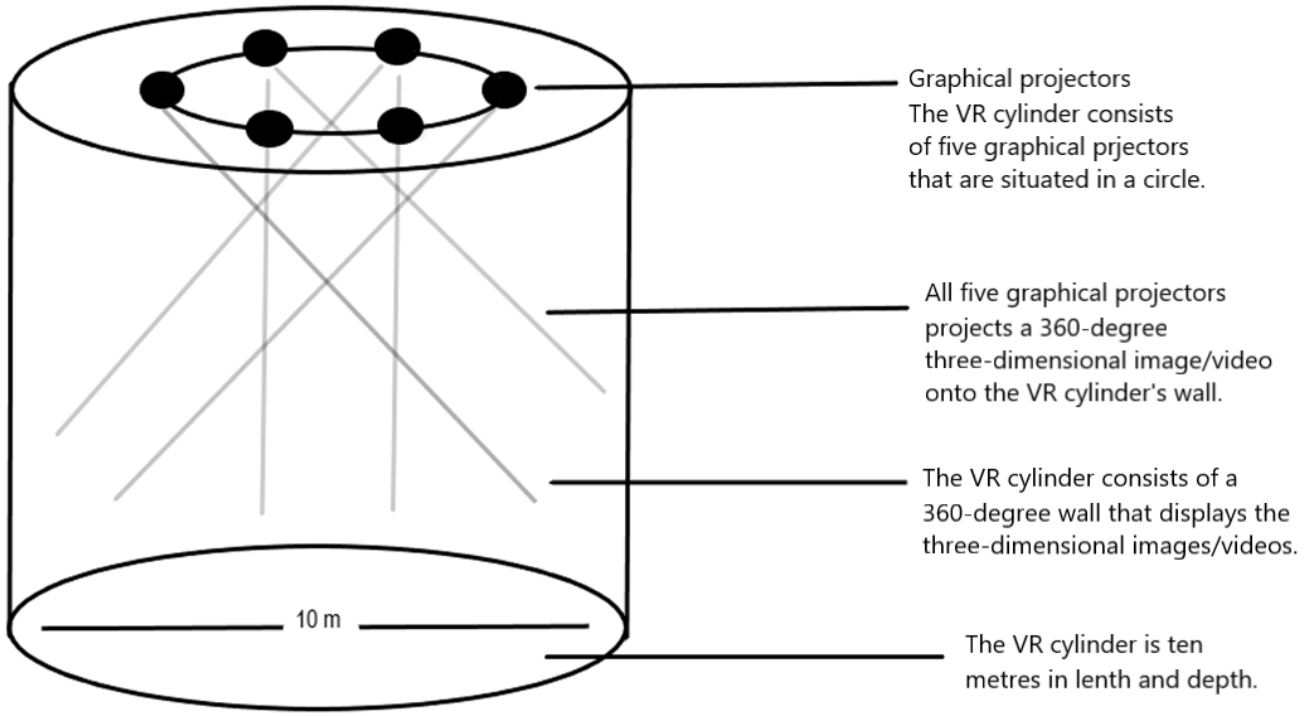

Figure 10: My rendition of the University of Pretoria's VR cylinder

5.1.2.1 Using the VR cylinder

Owing to the size and shape of the VR cylinder (as indicated in figure 10), users are able to walk around within the VR cylinder and view the three-dimensional image/video from multiple points of view. When entering the VR cylinder, the 360-degree, three-dimensional image/video becomes the 'eyes'/perspective of the user. As the user moves around within the VR cylinder, the point of view of the three-dimensional image/video (virtual reality) will change. The three-dimensional glasses do not have tracking devices that change the user's point of view when moving around within the virtual environment. The VR cylinder also does not contain any mechanical tracking devices, such as arms, wands, joysticks/VR controls or data gloves that enable users to interact with objects, as well as perform tasks with the virtual reality. It is therefore up to the users to move around in the space and focus on different segments of the 360-degree, three-dimensional image/video within the VR cylinder.

Users decide what to focus on within the virtual reality. Users can walk to the wall where a segment of the 360-degree, three-dimensional video is projected on, to be closer towards a virtual object or character or move further away from the objects presented within the three-dimensional video. As the VR cylinder is in a cylindrical form, the further the user moves away from the one side of the segment of image/video, the closer they move towards another segment of the image/video.

The VR cylinder generates system immersers as users are able to enter a virtual environment and become part of the virtual reality. Users are immersed through the technology (system immersion) that is able to create a 360-degree, three-dimensional image/video that projects three-dimensional life-size objects, characters and surrounding, enabling users to feel a part of the virtual reality, as if the virtual reality is 'real' or 'the

reality'[170]. Further immersion can be generated through place illusion and plausibility illusion that allow users to walk around with the virtual environment resembling elements of the physical reality and allowing the virtual reality to feel more 'real' or 'the reality'. Below, I discuss the possibilities for creating a hypothetical production using the VR cylinder.

5.2 Creating a hypothetical medial, immersive, theatrical production

The perimeters of the hypothetical production will be as follows: I recorded a narrative video that demonstrates how the hypothetical medial, immersive, theatrical production could function. The demonstration of how the medial, immersive, theatrical production functions will take place on-site, namely in the VR cylinder. There is audience present. The narrative video) demonstrates how the hypothetical medial immersive theatrical production could function.

When referring to the medial, immersive, theatrical production and audience members in this study, it refers to a hypothetical production that consists of hypothetical audience members. In addition, a review of the scholarship, elements of intermediality and transmedia storytelling will be used to demonstrate how the medial, immersive, theatrical production will function. The narrative video will consist of a brief mock-up performance and a discussion of possibilities that will demonstrate how elements of intermediality, with additional transmedia storytelling extensions, could be incorporated in order to immerse audience members.

5.2.1 Using the VR cylinder to create a hypothetical medial immersive theatrical production

The production creates a fictional world about a serial killer that roams around on campus in search of new victims. The entire performance will take place inside the VR cylinder.

[170] System immersion within the VR cylinder will be discussed in more depth in section 5.2.

The production will enable audience members to enter the virtual environment that consists of a fictional world, as well as a virtual reality.

5.2.1.1 The virtual reality (three-dimensional video)

The VUZE+ stereo camera will be used to create the virtual reality through capturing a 360-degree, three-dimensional video that will be played during the entire production. The three-dimensional video will be projected onto the 360-degree walls of the VR cylinder, creating the virtual reality. When entering the VR cylinder audience members will be provided with three-dimensional glasses, allowing the three-dimensional video to appear in three-dimensional form. Audience members will be able to keep their three-dimensional glasses on throughout the performance or take them off whenever they wish[171].

Owing to the nature of the narrative of the production, the three-dimensional video will be a representation of a location situated at the University of Pretoria (the Aula grass) and therefore, the virtual reality will be the representation of an existing space on campus. The represented space (Aula grass) used in the virtual reality, was purposely selected as this is a big, open space that is surrounded by buildings and structures of different sizes. The big, open space combined with the buildings and structures of different sizes, creates the illusion of depth and height within the VR cylinder that creates a 'more realistic' virtual reality that audience members are able to enter. The 'depth' in the virtual reality (that is created through the three-dimensional video of the represented location) creates the illusion of a big space that audience members are able to 'walk around in'[172]. The video of the represented location will also contain substantial visual detail; audience members are able to see cars driving around, people walking around and even birds flying around, within the virtual reality.

[171] It is important to note that when audience members take off their three-dimensional glasses the three-dimensional images/video projected onto the 360-degree wall will become obscured therefore allowing audience members to step outside the virtual reality. Allowing audience members to take off their three-dimensional glasses throughout the performance can enable audience members to shift between the virtual reality and physical reality (see section 5.2.1).
[172] The space within the VR cylinder that create the illusion of a real space will be discussed further in section 5.2.1.

A figure dressed in black clothing will be seen walking around and hiding behind trees and buildings within the virtual reality, thus creating the illusion of 'stalking' the audience member. A student laptop bag, student card and books will be lying around in the pathway in the virtual reality. A missing person poster will also be seen on a light pillar in the virtual reality. It will thus be up to the audience members to explore all aspects of the virtual reality to search for clues, as well as events, in order to make sense of the fictional world and construct narrative. As mentioned earlier, due to the size and shape of the VR cylinder, audience members are able to view the virtual reality from multiple points. Audience members will therefore be required to walk and turn around within the virtual environment, in order to view different segments of the virtual reality in search of narrative. The audience members will be able to walk up towards the wall (where the three-dimensional 360-degree videos are portrayed) in search of clues and to find out how events unfold within the virtual reality.

The three-dimensional 360-degree video will also be captured in such a manner that it creates the illusion of movement among audience members within the VR cylinder, despite audience members being able to walk around within the VR cylinder. When capturing a three-dimensional 360-degree video with the VUZE+ stereo camera, the camera is usually stationary, as it has already captured every single movement within a 360-gegree radius. When capturing the three-dimensional 360-degree video for the production, the stereo camera will be stationed for the most part, with little forward camera movement (whilst keeping the camera stable) at a specific time. This little forward camera movement will take place when the character (virtual character) walks towards the camera and sits on a bench (close to the camera); the camera will then move slowly forward towards the character. When played in the VR cylinder the three-dimensional 360-degree video will create the illusion of the audience member walking towards the virtual character, although the audience member has not moved at all. It is very important to keep the camera movement minimal and the camera very stable, as the incorporation of too much movement or fast camera movement played in the VR cylinder, is likely to overwhelm the audience member and even create motion sickness.

The virtual character will be created through capturing a three-dimensional video of the character with the VUZE+ stereo camera and projecting the three-dimensional image onto the walls of the VR cylinder. It is important to note that the virtual character's performance will be captured without the live character being present (as the live character will be physically present within the VR cylinder), leaving only a virtual representation of the character. Due to the size of the VR cylinder, the virtual character will be captured three to five metres away from the camera, in order to allow the proportions of the live character and audience members to be in proportion when projected in the VR cylinder. When capturing the virtual character with the camera from less or more than three to five feet away, will result in either an oversized or undersized virtual character when projected in the VR cylinder. I discuss the live elements in the production next.

5.2.1.2 The live performance within the VR cylinder

The live performance will consist of the live elements of the production that takes place within the physical reality within the VR cylinder[173]. Audience members will be given time to explore the VR cylinder by walking around within the VR cylinder and exploring the virtual reality, as well as the fictional world within the VR cylinder. Audience members will be able to interact with virtual characters or objects within the virtual reality, as well as physical characters and objects within the fictional world (physical space), thereby becoming part of the fictional world, together with the virtual reality[174]. The VR cylinder's operator will also be present throughout the entire production and is stationed in the middle of the VR cylinder[175].

[173] Within the context of the medial immersive theatrical performance, the fictional world consist of live interactions audience members can interact with within the virtual environment, for example the live characters and objects within the VR cylinder.
[174] It is important to know that audience members are not able to physically interact with virtual reality and are only able to search for virtual object or character within the virtual reality. The virtual characters interaction with the audience member are also limited as the performance is prerecorded, thereby only refer to the audience member and ask the audience member rhetorical questions.
[175] The VR cylinder operator has a table with a laptop stationed in the middle of the VR cylinder and operates the VR system from there.

The fictional world will be created through fictional news articles of students gone missing on campus, as well as fictional articles of two murders that had taken place on campus. Audience members will also be handed a student card and brochure of the missing student upon entering the VR cylinder. The missing student's personal belongings will also be deliberately placed in selected positions within the VR cylinder, where audience members will be able to interact with the objects in search for clues or additional information. Broadcast messages will be sent to audience members, alerting them to be on the lookout for a killer[176].

The production will consist of a live character and virtual characters interacting with one another, as well as the audience members within the VR cylinder. As the virtual character exists in the three-dimensional video, the virtual character's performance and dialogue will be pre-recorded and the live character is dependent on the timing of the video, in order to create the illusion of a 'real' conversation. Allowing the live character and virtual character to interact and refer to each other, as well as to the audience members, enable audience members to become active participants - therefore becoming characters within the fictional world, as well as the virtual reality (see the two illustrations below that show and explain the relationship between the live characters, virtual characters and audience members within the CR cylinder)[177].

[176] The use of transmedia storytelling extensions for example the broadcast messages will be discussed in section 5.2.2.
[177] The relationship between the live character, virtual character and audience members will be discussed further in section 5.1.2.1.1.

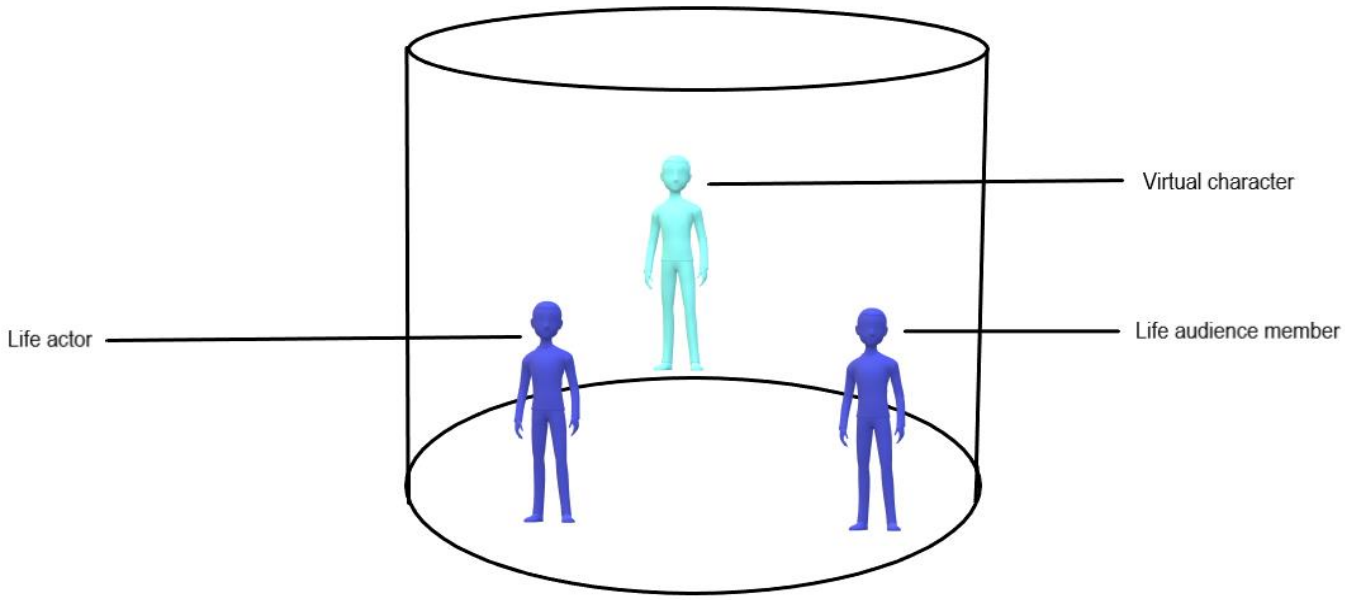

Figure 11: My visual representation of the live character, virtual character and audience member within the VR cylinder

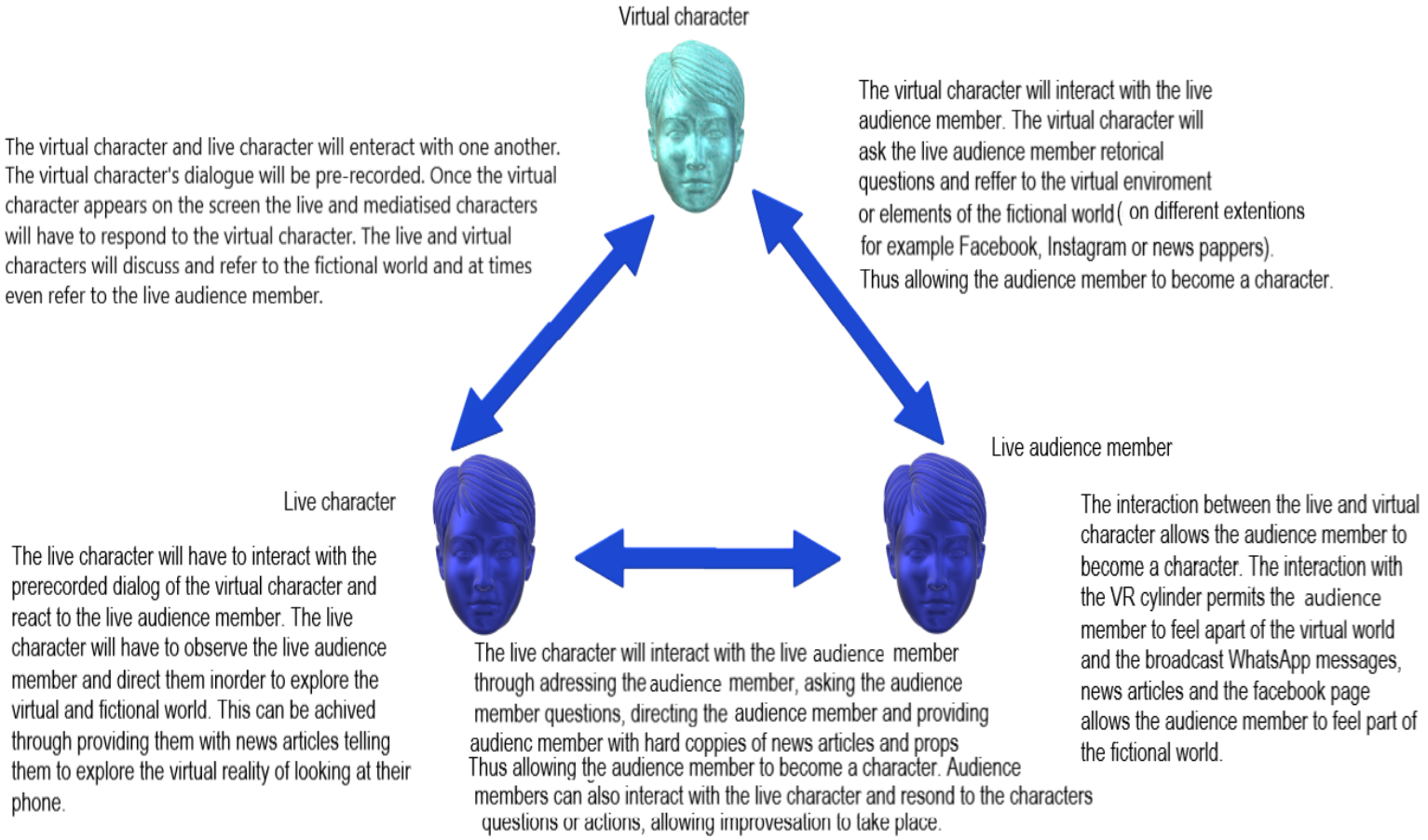

Figure 12: My visual representation of the relationship between live character, virtual character and audience member

The live character that is physically present within the VR cylinder is called Sarah, a Student Council representative. Sarah tries to create awareness around campus in the hope of keeping everyone safe. She alerts the audience members to a killer through a *Facebook* and *Instagram* page that contains live videos and posts for information. Upon entering the VR cylinder, Sarah (the live character) will start recording a live video chat. She will encounter the audience member and start asking them a question, thereby allowing them to become part of the live video chat and fictional world. It is important to note that the live video chat between the live character and audience member will be instantly posted on *Facebook* and *Instagram*. A mediatised representation of the live character, as well as the audience member is thus generated. Creating a live and mediatised representation of the same character, as well as a mediatised representation of the audience member within the same time and space[178].

Sarah will also interact with the virtual character (Alex) within the VR cylinder. Sarah spots the virtual character (Alex a female student) sitting on her own and sees her as a soft target. Sarah walks towards Alex (the virtual character) and asks the audience member to join the conversation. After their conversation, Alex (the virtual character) walks away through entering a building within the virtual reality and Sarah (the live character) physically leaves the VR cylinder. As the character Alex is a virtual character, her exit will be entering a building within the virtual reality that is projected onto the walls inside the VR cylinder. The audience member is then left alone within the virtual environment. A virtual hand full of blood will appear on the wall within the VR cylinder (that represents the audience member's hands), thus placing the audience member in a position of potentially

[178] The use of the *Facebook* and *Instagram* page will be discussed in more depth in section 5.2.2

being the killer[179]. The incorporation of intermedial elements and transmedia storytelling within the medial immersive theatrical production will be discussed below[180].

5.2.2 Intermediality used to create a hypothetical medial immersive theatrical production

The medial immersive theatrical production will make use of advanced technology to create a virtual reality that audience members are able to enter. Live characters and physically real objects can also be placed within the virtual environment, allowing both live and mediatized elements to be present within the virtual environment, thereby creating mixed realities. The VR cylinder consists of mediatised elements and live elements that enable audience members to be in-between different realities and become part of the fictional world, as well as the virtual reality. The transmedia storytelling extension (the live video chat), will likely also create mixed realities through allowing audience members to see themselves present within the production, together with a mediatised representation of the live character[181].

Allowing audience members to take off their three-dimensional glasses and seeing the VR operator operate the VR system may create re-mediation. Seeing the VR operator operate the VR system during the production breaks the illusion of the virtual reality and will enable audience members to see the process of how media is used to create the virtual reality. Allowing audience members to put on and take off their three-dimensional glasses during the performance, also shows the process of re-mediation as the three-dimensional video becomes distorted when the glasses are taken off. Putting on and taking off the three-dimensional glasses during the production, can reveal to audience members the process of how three-dimensional images are created and how the distorted images are able to change into three-dimensional images. It can also be argued that

[179] As mentioned earlier, when entering the VR cylinder 360-degree virtual reality becomes the ‘eyes’ perspective of the audience member.
[180] As the interactions between the live and mediatised characters are crucial to the study, the study will refer to the live and virtual character as ‘live character’ and ‘virtual character’ and not by their characters’ names.
[181] The use of mixed realities to generate immersion will be discussed is section 5.3.6.

taking off the three-dimensional glasses and putting them back on, may help audience members shift between the different realities (virtual reality and fictional world). Talking off the three-dimensional glasses may enable audience members to focus on the fictional world as the virtual reality becomes distorted around them.

The VR cylinder is able to immerse the user through system immersion, by placing the audience members within a virtual reality that surrounds them and allows them to interact with the virtual reality. The VR system is also able to immerse audience members through being present within the virtual environment and experience the three-dimensional model of attention[182]. The incorporation of mediatised elements, combined with live elements, can also immerse audience members by allowing them to be present through experiencing the three-pole mode of presence; presence as a three-layered bio-cultural mechanism, place illusion and plausibility illusion (this will be discussed in section 5.3). The next section will discuss the use of transmedia storytelling in the medial immersive theatrical production.

5.2.3 Transmedia storytelling in a hypothetical medial immersive theatrical production

Different transmedia storytelling extensions will be used to produce a medial immersive theatrical production and generate immersion. Audience members will be required to use their cell phones during the production, in order to access the transmedia storytelling extensions. These extensions will consist of *WhatsApp* messages, made-up news articles, posters, and a *Facebook* and *Instagram* page (because *Facebook* and *Instagram* are linked, the content will be the same and audience members can choose to use one of the accounts). The audience members will even receive a phone call from one of the characters during the performance and will be able to answer or ignore the phone call.

Audience members will receive a *WhatsApp* message prior to the production that provides them with instructions on where to meet and where the VR cylinder is situated

[182] Please see section 3.5.

on campus. Other *WhatsApp* broadcast messages will also be sent to audience members and alert them to be on the lookout for suspicious activities or people within the production (the virtual reality, as well as the fictional world). The broadcast messages will also provide audience members with additional information regarding the fictional world, through news articles, reports of missing students and warnings from the local police station, informing audience members about fatalities on campus and a potential killer on the loose.

A missing person poster will also be placed on campus on the way to the VR cylinder, as well as on the VR cylinder's door[183]. The same missing person's poster will be handed out to audience members when entering the VR cylinder. Audience members will receive a friendly request (*on Facebook or Instagram*) from the live character present within the production, and will have the option to either accept the friendly request or decline it. The *Facebook* and *Instagram* page will be called *The University President*. The page will contain the live character's journey since having been elected as the student body president and how she addresses the problems students face on a daily basis. Audience members can interact with the live character (Sarah) on the mentioned social media accounts, from a day before the production, up until a week after the production. Audience members are able to like or comment on the character's posts and even send the character a private message on the mentioned social media accounts. The *Facebook* and *Instagram* page will provide audience members with additional information regarding the fictional world and the character's life.

The live character will start a live video chat on *Facebook* and *Instagram* when entering the VR cylinder. They will then approach the audience member and engage with them, so that they become part of the live video chat. The live video chat with the audience member, will be instantly uploaded to *Facebook* and *Instagram,* thus allowing the audience member to view themselves interacting with the live character and seeing a

[183] The missing persons poster will be on exactly the same light pillar at the Aula grass (University of Pretoria) and be in the same location and place the poster is situates within the virtual reality. The missing person poster will contain a picture of the missing student with information regarding her disappearance (see narrative video).

mediatised version of themselves, as well as the live character within the live performance.

Transmedia storytelling extensions provide audience members with additional information regarding the fictional world allowing them to find out what is going to happen next, form a connection with the fictional world, as well as a relationship with the live character, thus generating narrative immersion among audience members. The transmedia storytelling extensions also provide audience members with enough information regarding the fictional world; for example, the broadcast messages and made-up news articles are able to create a fictional world that seems 'real' and generates place illusion and plausibility illusion. The transmedia storytelling extensions within the production are able to generate narrative immersion, system immersion and challenge-based immersion. Audience members will also be able to be present through the three-pole mode of presence, presence as a three-layered, bio-cultural mechanism, and place illusion and plausibility illusion (this will be discussed in section 5.3). The next section of the chapter will create a framework for producing a media immersive theatrical event. How events unfold within the live production will be indicated in the table below.

Table 2: How events unfold during the hypothetical production

The virtual reality (Pre-recorded)	**The audience member (Physically present)**	**Live character (Physically present)**	**Transmedia storytelling extensions (where applicable)**
Shows a three-dimensional 360-degree video of Aula grass. The setting needs as much movement as possible; for example, wind blowing the plants, people walking around and cars passing, as it creates more immersion [184].	Audience member walks in the VR cylinder and explores the virtual environment. There needs to be enough time for the audience to explore the virtual environment on their own and become familiar with the virtual reality, before the live characters can enter.		The audience members will start receiving *WhatsApp* broadcast messages form the live character to be on the lookout for suspicious activities. Made-up mews articles about murders that to place on campus will also be send to audience members[185].
The virtual character can be seen walking closer to the audience member. Takes out a book and reads it[186]. A figure dressed in black can be seen walking around in the space and hiding behind buildings. Books, a	As the live character interacts with the audience member, the audience member becomes an active participant. The audience member can choose how involved they want to be and choose how	The live character enters the VR cylinder. She takes out her phone and starts recording a live chat. The live character sees the audience member and asks them to join her in the live chat.	The live video chat between the live character and audience member is instantly uploaded to *Facebook* and *Instagram*.

[184] What one would see in the VR cylinder, also acts as the live audience member's eyes.
[185] Audience member can either reject all the requests or browse and scroll through all the *Facebook* posts.
[186] As the stereo camera captures 360-degree radius, the three-dimensional video will always capture the virtual character.

laptop bag and missing person's poster can also be seen.	much they want to be part of the conversation.		
The three-dimensional, 360-degree video starts moving towards/closer to the virtual character[187].		The live character then sees the virtual character and cuts off the live video chat. As the three-dimensional video moves it creates the illusion that the live character and audience member approaches the virtual character (although the live character and audience member does not move).	
The virtual character acknowledges the live character and walks towards the live character[188].	The audience member can then move towards the real and virtual character or stay where they are. The audience member can even move away from the conversation if they wish to.	The live character then walks towards the screen where the virtual character is (so that the live character is close to the virtual character). The live character then shows and asks the audience	

[187] The camera movement then stops, creating the illusion that the audience member walks closer to the virtual character.

[188] The illusion of the virtual characters acknowledging the live character is created through walking closer were the camera is stationed and just looking to the side of the camera. When addressing or revering to the audience member the character looked into the camera.

		member to follow them and stand next to them.	
The virtual character refers to the live audience member at times, or asks rhetorical questions, thus allowing the audience members to feel as if they are part of the conversation.	The live and virtual characters refer to the live audience member and thus allows the audience member to become a part of their conversation.	A conversation between the live character and virtual character starts. (It is important to note that the live character should be at a distance that the live and recorded character is in proportion). The live character also talks to the audience member.	
The virtual character stands up and walks into a building within the virtual reality.	The audience member's phone starts to ring; they can either ignore the phone call or take the call (the call will also warn audience members about the serial killer on campus).	The live character encourages the audience member to pick up the phone.	
Hands covered in blood appear on the walls of the VR cylinder.	It is important that the audience look in the right direction so that they can see the bloody hands. They should also be at the right	The live character leaves the VR cylinder. The live character should ensure that the audience member is looking in the right direction and	

	position/spot in the VR cylinder for the proportions to be right. The audience member is left alone in the VR cylinder until the video stops.	is at the right position for the proportions to be aligned.	

5.3 Immersion in a hypothetical medial immersive theatrical production

5.3.1 System immersion in a medial immersive theatrical production

System immersion can be generated in the production through allowing audience members to enter the VR cylinder and be inside the virtual environment. The highly advanced technology used in the VR cylinder; for example, the three-dimensional, 360-degree video that projects a three-dimensional video within the VR cylinder and the three-dimensional glasses that make the video appear three-dimensional, and can thus generate immersion among audience members. This advanced technology creates virtual reality where audience members are able to enter and thereby be surrounded by the virtual reality. Audience members may be immersed within the virtual environment as they are inside the virtual reality and become part of it. The advanced technology can also immerse audience members through creating a virtual reality that feels 'real' and as 'the reality' (Slater 2003:3).

Although the three-dimensional glasses do not contain tracking devices that change the audience member's point of view, to generate a higher level of immersion, a higher level of immersion can still be generated through the VR cylinder's unique design. It enables audience members to walk around within the virtual environment and explore segments of the virtual reality. Owing to the size of the VR cylinder, audience members are able to walk towards different virtual objects or virtual characters within the virtual reality, just as one would in reality. This interaction with the virtual setting, virtual objects and virtual characters can immerse audience members, as the virtual reality may feel 'real' and similar to 'the reality'.

As the three-dimensional, 360-degree video is the representation of an actual location on campus, audience members will encounter the actual space before entering the VR cylinder. Thus, it can be argued that the virtual space might feel 'more real' as audience members know the space really exists (not computer-generated space) and that the audience members have encountered the actual space previously.

Immersion can be also generated as the represented location consists of a large open space with different levels and buildings and structures that create the illusion of depth. This enables the virtual reality to feel much bigger than it actually is. The depth within the three-dimensional, 360-degree video is likely to generate immersion, as the space creates the illusion of being 'real' or 'the reality'. The movement of cars driving and people walking within the three-dimensional, 360 degree video also creates a sense of realism, as it creates a more realistic virtual environment that audience members can enter.

Intermediality is seen as the primary system immersion mechanism, and transmedia storytelling the secondary system immersion mechanism. System immersion in transmedia storytelling is possible, as audience members are able to immerse within the technology used in different extensions. System immersion is generated through allowing audience members to find segments of narrative, through using technological devices; for example, a smartphone or computer. The technological devices (smartphone or computers) will permit audience members to look up and find segments of narrative that allow the fictional world to seem 'real' or to participate within the fictional world and become part of it. Thus, the use of a technological device will enable audience members to become part of the fictional world and allow the fictional world to be seen as 'real' or closer to 'the reality'.

System immersion can thus be thus generated among audience members by allowing them to enter the virtual environment, thereby becoming part of the fictional world. It is important to note that allowing the VR cylinder to also become a performance space with live characters interacting with the audience members. Virtual setting, virtual objects and virtual characters change the virtual environment into an intermedial space[189]. I discuss narrative immersion within a medial, immersive, theatrical production next.

[189] The immersion generated through intermedial performances where live characters and mediatised charters interact within the same time and space will be discussed in 5.2.1.4 and 5.2.1.6. When discussing the three-pole mode of presence and presence as a three-layered bio-cultural mechanism.

5.3.2 Narrative immersion in a medial, immersive, theatrical production

Narrative immersion is generated in a medial immersive theatrical production through intermediality, as well as through the transmedia storytelling extensions. An intermedial performance should be able to generate narrative immersion among audience members within the different represented realities. Audience members should be able to immerse themselves within the virtual reality, as well as the fictional world within the live production. Audience members should be able to immerse through temporal immersion, spatial immersion and emotional immersion.

5.3.2.1 Narrative immersion within the virtual reality

- **Spatial immersion** can be generated through permitting audience members to explore the virtual reality. Allowing audience members to walk around within the virtual environment generates immersion. As audience members are able to move around within the space, as they would in the reality, they are more likely to perceive the virtual space as ‘real’ or ‘the reality’. Movement within the virtual reality may also generate immersion as audience members are able to form a connection to the virtual reality and feel part of the virtual reality, thus possibly becoming immersed.

- **Temporal immersion** can be generated within the virtual reality through allowing the audience members to walk around the space. Audience members will be able to walk around within the virtual environment and search for clues and information, in order to make sense of the narrative as a whole. As audience members explore the virtual reality, they are will be able to see virtual objects and characters that contribute to the fictional story as a whole. A laptop bag, books and a student card of a missing student can be seen lying in the pathway within the virtual reality. A missing person’s poster can also be seen on one of the pillars within the virtual reality. A person dressed in black can also be seen walking around within the virtual reality and is seen hiding behind buildings and trees. Temporal immersion

can be generated through allowing audience members to explore the virtual reality and find different clues to make sense of the narrative, and try to find out what is going to happen next.

- **Emotional immersion** will be generated within the virtual reality as audience members are able to interact with the virtual character within the virtual environment. Engaging in conversation with the virtual characters, seeing the figure dressed in black, as well as the missing person's poster and abandoned books, may enable audience members to form an emotional connection to the virtual reality, and may thus be immersed.

5.3.2.2 Narrative immersion within the fictional world

- **Spatial immersion** will be generated through permitting audience members to explore the fictional world and become part of it. Audience members could become immersed as they will be able to walk around within the virtual environment and explore the fictional world. Audience members will be able to interact with objects, as well as live characters within the fictional world, thereby becoming part of the fictional world and forming a connection with it.

- **Temporal immersion** is generated through allowing audience members to explore the fictional world within the virtual environment. Audience members could find objects within the fictional world; for example, posters of missing students lying around and a laptop bag, student card and stationery, to generate narrative. Audience members could also able to interact with the live character in order to find out how events unfold and discover what is going to happen next. Immersion can be generated as audience members for a connection with the fictional world and the narrative, thus arguably feeling part of the fictional world and immersed.

- **Emotional immersion** can be generated when the audience members interact with the live character and form a relationship with them throughout the live performance. The live character is focused on allowing the audience members to become active participants and 'characters' within the fictional world. The live character will have multiple interactions and conversations with an audience member, inviting them to form an emotional connection with the live character.

5.3.2.3 Narrative immersion within transmedia storytelling extensions

- **Spatial immersion** can be generated by allowing the audience members to explore the different transmedia extensions within the live production. As audience members accept the live character's friend request on *Facebook* and *Instagram*, read the made-up news articles, missing person's posters and engage with the *WhatsApp* broadcast messages, they should be able to form a connection with the fictional world and perceive it as the 'real' or 'the reality', thus being immersed.

- **Temporal immersion** can be generated through audience members being able to explore the live characters' *Instagram* and *Facebook* page, reading the made-up news articles, missing person's poster and broadcast messages, in order to know what is going to happen next and how events unfold. As audience members are able to search for additional information regarding the fictional world, and wanting to know what is going to happen next, they are likely to be immersed within the fictional world.

- **Emotional immersion** can be generated through audience members exploring the live character's social media accounts (*Instagram* and *Facebook*), in order to find additional information about the character. Providing audience members with insight and additional information about the characters, may allow audience members to form an emotional connection with the characters and feel empathy towards them.

The medial immersive theatrical production should thus be able to generate narrative immersion within the live production, as well as through the transmedia storytelling extensions. As the live production can also be seen as an intermedial performance that consists of mixed realities, audience members should be able to generate narrative immersion in both the represented realities (fictional world and virtual reality), within the production. Thus, different levels of narrative immersion can be generated. The following section will discuss challenge-based immersion.

5.3.3 Challenge-based immersion in a medial, immersive theatrical production

Challenge-based immersion occurs within the fictional world, as well as the virtual reality within the intermedial performance. Elements of transmedia storytelling within the production can also generate challenge-based immersion.

5.3.3.1 Challenge-based immersion within an intermedial production

Audience members should be able to immerse within the production through challenge-based immersion, as they are able to enter and interact with both the fictional world, as well as the virtual reality. Upon entering the VR cylinder, audience members will be provided with a student card, enabling them to become an active participant and ‘character’ within the fictional world. The live character will, throughout the production, interact with the audience member by asking them to join the live video chat, encouraging them to interact with the virtual character and to state how they feel and to give their opinion on matters (in the context of the narrative). Audience members will also be able to walk around within the virtual environment in search for clues (search through papers, missing person’s posters and abandoned personal items) that are placed deliberately in selected places within the VR cylinder, in order to construct a narrative.

Challenge-based immersion can also occur within the virtual reality when the virtual character refers to the audience member and asks them questions to which they are able

to reply[190]. Immersion can be generated as audience members are able to interact with the fictional world, as well as the virtual reality, thereby becoming part of the fictional world, as well as the virtual reality. Audience members become co-writers and 'characters' within the fictional world, as well as the virtual reality and are able to contribute to the narrative.

5.3.3.2 Challenge-based immersion within transmedia storytelling

Transmedia storytelling generates immersion among audience members as they are able to become participants within the fictional world through transmedia storytelling extensions. Audience members will be able to explore the character (present within the live production), *Facebook* and *Instagram* page, comment and like the character's posts. Audience members can even reply to the *WhatsApp* broadcast messages and send the character a private message on either *WhatsApp, Facebook* or *Instagram*. As the audience members participate in fan culture or become active participants through interacting with the character on *WhatsApp*, *Facebook* or *Instagram*, they become co-writers or 'characters' within the fictional world. Audience members are likely to be immersed, as they become part of the fictional world and are able to contribute to the narrative.

It can also be argued that allowing audience members to search for different transmedia storytelling extensions can also generate challenge-based immersion. This occurs as audience members search for additional information regarding the fictional world on different social media platforms.

Challenge-based immersion can thus be generated through allowing the audience members to interact with the live and the virtual character within the live production, as well as on social media platforms. Audience members can also explore the fictional world

[190] Although the virtual characters dialog is pre-recorded the virtual character can still ask the audience members questions they are able to answer or just think about. The dialog can be of such a nature that it either becomes a short conversation or rhetorical questions asked the audience members.

within the virtual environment, as well as the transmedia storytelling extensions, in search for clues and additional information regarding the fictional world that generates immersion. This interaction with transmedia storytelling extensions may also generate online liveness and group liveness among audience members. When the transmedia storytelling extensions are able to bring audience locations together at the same time and allow audience members to have a shared experience, online liveness can be generated. Group liveness can be generated when audience members are able to participate in fan culture and contribute to the narrative. The following section discusses the three-pole mode of presence.

5.3.4 The three-pole mode of presence

The three-pole mode of presence can be generated among audience members within the live production, as well as through the transmedia storytelling extensions.

Placing the audience members within the VR cylinder where a live character and virtual character interact with each other within the same time and space, creates mixed realities. The mixed realities (virtual reality and the fictional world within the virtual environment), may enable audience members' spatial attention to shift between the different realities (virtual space, mental imagery space and physical space), within the production and thereby allow them to form a relationship with the spaces. Immersion could be generated by heightening the audience member's presence through the constant shifting between different realities that should enable the audience member to be present within the represented realities (Ryan 2003:122). The use of mixed realities within the production can also generates liveness among audience members as the intermedial performance enables the mediatised elements to become live again within the immediacy of the theatre space.

The three-pole mode of presence can also generate presence through the transmedia storytelling extensions. Reading different transmedia storytelling extensions up against one another enables audience members to also be in-between different realities within the transmedia storytelling extensions. These different realities are created when the

audience member views different transmedia storytelling extensions (for example, the *Facebook*, *Instagram* page, *WhatsApp* messages and news articles that all contain the live character), within the same time and space that creates different representations of the same character. Allowing audience members to access the character (present within the live production) *Facebook* and *Instagram* account within the live production (when the live character is physically present), will also create different realities (a live and mediatised representation of the same character).

The use of transmedia storytelling extensions within the live production can even allow the audience member to access a mediatised representation of themselves interacting with the live character within the virtual environment, while also being present within the virtual environment. Audience members are able to view a mediatised representation of themselves as the live character approaches the audience member and engages in conversation, allowing the audience member to become part of the live video chat. The live chat will be instantly uploaded to *Facebook* and *Instagram*, permitting the audience member to see a mediatised representation of themselves, as well as the live character, thus creating different realities. Immersion is generated as the audience members' presence is heightened through shifting between different realities within the transmedia storytelling extensions. This enables the viewer to be present within the represented realities, as well as the physical reality.

The incorporation of transmedia storytelling extensions within the hypothetical live performance (that already consist of different realities), adds another reality to the production. Thus, it allows the audience member to shift between the virtual reality, mental imagery, the physical reality (fictional world), and the realities represented within the transmedia storytelling extensions. Audience members are able to feel present and immersed within one of the represented realities (the transmedia storytelling extensions within the production; the fictional world within the production; the virtual reality within the production, or physical reality), or through the constant shift between the different realities. Audience members are immersed as there is constant spatial shift between the different realities which enable the audience member to constantly question their physical

presence that heightens their reality. Consequently, it allows them to be immersed by the experience. The three-dimensional model of attention will be discussed next.

5.3.5 Three-dimensional model of attention

The three-dimensional model of attention could be generated when the audience member enters the virtual environment and is able to engage with the virtual reality, as well as the fictional world within the VR cylinder. If audience members are immersed if they are able to obtain focus of attention, locus of attention, and sensus of attention, within the virtual environment (Waterworth and Waterworth 2001:12).

Focus of attention can be achieved when the audience member pays attention to the fictional world or the virtual reality within the virtual environment and is present within either one of the represented realities. Locus of attention is achieved as the audience members can pay attention to either the virtual reality and the objects, characters or space, within the virtual reality or pay attention to the physical reality (fictional world) and the objects, characters or spaces within the physical reality. Sensus of attention can be generated within the production through allowing audience members to participate within the virtual reality, as well as in the fictional world. The setting, objects, characters and narrative within the virtual reality, as well as the fictional world, may generate presence among audience members and enable them to immerse within both realities. The narrative can also allow audience members to be present within both realities and accept the realities. Allowing audience members to interact with objects and characters within the fictional world, as well as the virtual reality, may also enable audience members to be present within the fictional, as well as the virtual reality and thus, become immersed within both realities.

When all three of these levels of focus are achieved, audience members should be immersed. It is important to note that the levels of attention with the audience members also depends on each member’s subjective response to the virtual environment, and how much of their attention they individually commit towards the virtual reality, as well as the

fictional world. I discuss presence as a three-layered, bio-cultural mechanism in the section to follow.

5.3.6 Presence as a three-layered, bio-cultural mechanism

Presence as a three-layered, bio-cultural mechanism can be generated within the live performance through the intermedial performance that creates mixed realities. The transmedia storytelling extensions are also able to create mixed realities. As the live production will consists of live characters and virtual characters interacting with one another, as well as with the audience member at the same time, within the same space, mixed realities will be created. Placing audience members within a space that creates mixed realities, could foster proto presence among audience members that enable them to have extended consciousness and core consciousness simultaneously. When audience members are able to be present in all three of these levels, immersion will be generated.

Allowing the audience member to interact with the transmedia storytelling extensions will also generate presence as a three-layered, bio-cultural mechanism. Audience members are able to view the live character's *Facebook* or *Instagram* page, while being present within the live production. Thus, a live representation and mediatised version of the same character is created, which then creates mixed realities and generates proto presence among audience members.

As mentioned previously, the live video chat between the audience member and live character, will also be instantly uploaded to *Facebook* and *Instagram*, allowing audience members to see themselves interacting with the live character and thus seeing a mediatised version of themselves, as well as the live character within the live performance. These mixed realities are likely to generate a high level of presence among audience members, thus immersing them, as the audience members' sense of presence may be heightened. It can also be argued that another form of presence of self can be generated when audience members are placed within a space where they see a

mediatised representation of themselves within the same space. Therefore, this should enable audience members to o distinguish between their physical selves and their mediatised selves.

Presence as a three-layered, bio-cultural mechanism can thus be generated through creating an intermedial production consisting of a live character and a virtual character's interaction with each other, creating mixed realities. Placing audience members within a space that consists of mixed realities, generates proto presence among audience members and enables them to experience proto presence, extended consciousness and core consciousness simultaneously, while being immersed. The section below will discuss the illusion of place and plausibility.

5.3.7 Illusion of place and plausibility illusion

Presence through the illusion of place and plausibility illusion is possible within the fictional world or the virtual reality, as well as the transmedia storytelling extensions. Presence through the illusion of place can be generated through allowing the audience member to enter the VR cylinder and interact with the virtual environment, as one would in reality. Owing to the technology used within the VR cylinder, audience members are able to enter a virtual reality that seems 'real' or like 'the reality'. The three-dimensional, 360-degree video that appears three-dimensional when audience members wear three-dimensional glasses, creates the illusion of the space being 'real', thus immersing audience members. Presence through the illusion of place is also generated within the fictional world that exists in the virtual environment. Permitting audience members to enter the fictional world and walk around the space and interact with objects within the space, can generate space illusion and immerse audience members as they are likely to perceive the fictional world as 'reality' (Slater 2009:3550).

Presence through plausibility illusion is generated as audience members should be able to interact with the virtual and live character, as well as objects within the virtual environment. As the audience members are able to interact with the virtual character, live

character and objects within the virtual environment as one would in reality, a plausibility illusion is generated. The audience member's interaction with the live character and fictional world should generate a higher level of plausibility illusion than the virtual character and virtual environment would. As audience members should be able to physically touch the objects within the fictional world and interact with the live character, a greater sense of presence is granted and immersion is generated among audience members. I anticipated that the live character's interaction with the audience member will create a greater sense of plausibility illusion, as the live character can adapt and improvise aspects of their performance, according to the audience member's actions and reactions. The conversation will thus feel even more 'real' and closer to reality, whereas the virtual character's dialogue is pre-recorded[191].

Presence through the illusion of place and plausibility illusion can also be generated through transmedia storytelling extensions that create the illusion of a 'real world' and interactions with characters within that world will seem 'real'. Illusion of place is generated among audience members through reading the news articles of the fictional world; the posters of the missing students; broadcast messages and the search for additional information regarding the fictional world on social media platforms (*Facebook* and *Instagram*). These different transmedia storytelling extensions act as proof that the fictional world does 'exist'. Audience members are immersed as the transmedia storytelling extensions create the illusion that the fictional world is 'real'. Plausibility illusion is generated by allowing audience members to engage with the character's social media accounts through replying to a broadcast message sent to them on *WhatsApp*, liking and commenting on their social media accounts and even sending them private messages. As the audience members are able to interact with the character from the day before the live production up to a week after the live production, a plausibility illusion is created.

[191] It is important to note that that every performance will be different and in some cases, the virtual encounter will be highly responsive to input from audience members.

Presence through the illusion of place and plausibility illusion is thus used to generate immersion among audience members, through creating a virtual and fictional space that altogether constitutes the reality of the hypothetical performance. The transmedia storytelling extensions will further act as 'proof' of the fictional world's existence, thus further strengthening the illusion of the fictional world. The interactions with the characters within the fictional world, virtual reality within transmedia storytelling extensions (*WhatsApp*, *Facebook* and *Instagram*), will also generate immersion as the interactions will create the illusion of plausibility.

5.4 Conclusion

Elements of intermediality and transmedia storytelling can be used to create a medial immersive theatrical production that is able to immerse audience members on different levels. The production is able to immerse audience members through system immersion, narrative immersion and challenge-based immersion. Audience members are also able to experience different levels of presence within the medial, immersive theatrical production that generates immersion.

As discussed in section 5.2.1.1, intermediality generates primary system immersion, and transmedia storytelling extensions generate secondary system immersion. System immersion is generated within the virtual realities within the production and through the devices used to access the transmedia storytelling extensions. The use of advanced technology and technological devices; for example, a smartphone to access the fictional world, generates immersion as it allows the fictional world or virtual reality to seem 'real' and enables audience members to become part of the fictional world or virtual reality.

As discussed in section 5.2.1.2 and 5.2.1.3, both intermediality and transmedia storytelling extensions can be used to generate narrative immersion, as well as challenge-based immersion within the fictional world and the virtual reality. Narrative immersion is able to immerse audience members through allowing them to explore and interact with the fictional world or virtual reality, thereby forming a connection with the virtual reality or fictional world. Audience members are immersed as they become part of the fictional

world or virtual reality and perceive it as the ‘real’ or ‘the reality’. Challenge-based immersion also immerses audience members by allowing them to interact with the virtual reality, as well as the fictional world, thus enabling them to become part of the fictional world and immersed.

Different levels of presence are experienced within the medial, immersive theatrical production that generates immersion. Placing audience members within an intermedial space (that consists of a fictional world, as well as virtual realities), combined with transmedia storytelling extensions, generates different levels of presence. As discussed in section 5.2.1.4, the three-pole mode of presence is generated through creating a production that consists of mixed realities. Audience members are able to experience presence and immersion within one of the represented realities (the transmedia storytelling extensions within the production; the fictional world within the production; the virtual reality within the production or physical reality), or through the constant shift between the different realities.

Section 5.2.1.5 discusses the three-dimensional model of attention, and states that audience members are immersed as they are able to obtain focus of attention, locus of attention and sensus of attention, within the virtual environment. Presence as a three-layered, bio-cultural mechanism is generated through placing audience members within a space that consists of mixed realities, that generates proto presence, extended consciousness and core consciousness, simultaneously. Thus, audience members are enabled to be immersed (section 5.2.1.6). Illusion of place and plausibility illusion are also able to generate immersion as discussed in section 5.2.1.7 and immerse audience members through creating a virtual reality or fictional world that seems and feels like ‘real’ spaces and interactions with individuals. Stimulating the willing suspension of disbelief and allowing audience members to perceive the fictional and virtual reality as ‘real’ and become part of the fictional world and virtual reality, immerses audience members.

CHAPTER SIX: SUMMATION AND CONCLUSION

This chapter will summarise and critically reflect on the preceding chapters. The research objective will be revisited and the findings will be highlighted in order to draw a conclusion. The limitations, as well as the shortfalls of this study will be discussed and further research possibilities will be deliberated.

6.1 Overview of the study

This study focuses on mediality in relation to theatre and argues that a framework can be created to produce a hypothetical, medial, immersive, theatrical production, through incorporating elements of intermediality and transmedia storytelling as modes of immersion. The study theorised how elements of intermediality and transmedia storytelling combined with immersive theatre can be used to generate various levels of immersion among audience members and create liveness. A sense of presence and liveness enhances immersion.

This study used Nilsson, Nordahl and Serafin's (2016:110) three general views of immersion (system immersion; narrative immersion, and challenge-based immersion), as well as their four views of presence in relation to immersion (the three-pole model of presence; thee-dimensional model of attention; presence as a three-layered, bio-cultural mechanism and an illusion of place and plausibility), in order to construct a framework for producing a hypothetical, medial, immersive theatrical production.

6.1.1 Immersive theatre

As discussed in Chapter Two (section 2.1), immersive theatre is able to immerse audience members through incorporating elements of narrative immersion, challenge-based immersion and system immersion. Immersive theatre is also able to immerse audience members through allowing them to feel present within the space and to experience place and plausibility illusion.

As discussed in section 2.2.1.4, system immersion can also be used to create a virtual reality that audience members are able to enter and be immersed in. System immersion immerses audience members through allowing them to enter a virtual reality and providing them with enough resources that enable the virtual reality to seem 'real' or as 'the reality'. It is important to note that some immersive theatre performances consist of a fictional world, whereas other immersive performances enable audience members to enter a virtual reality (section 2.2.1.4).

Narrative immersion and its subcategories of spatial immersion, temporal immersion, and emotional immersion is generated within immersive theatre through allowing audience members to connect with the performance space or environment[192]. Immersive theatre generates spatial immersion through allowing audience members to explore the fictional world/virtual reality and form a connection with the space. Temporal immersion is generated through allowing audience members to explore the fictional world/virtual reality and search for clues or additional information about the fictional world/ virtual reality in order to construct narrative and to find out what is going to happen next. Emotional immersion is generated when audience members are able to form an emotional connection with the fictional world/virtual reality and objects or characters within that world. Immersion is generated among audience members through narrative immersion, as they are able to form a connection with the space, objects or characters within the fictional world/virtual reality, thereby feeling part of the fictional world/virtual reality and seeing it as 'real' or 'the reality' and thus being immersed (section 2.2.1.1, 2.2.1.2 and 2.2.1.3).

Section 2.2.1.3 also argued that immersive theatre can generate challenge-based immersion, through allowing audience members to perform tasks and overcome obstacles within the performance space or environment. Challenge-based immersion

[192] As mentioned in Chapter Five, performance space refers to the physical space audience members are able to enter for example a fictional world and environment is a space where highly advance technology are used to create a virtual reality audience members are able to enter.

immerses audience members through permitting them to participate in challenges that direct their attention toward the fictional world/virtual reality and by doing so, they become a part of the fictional world/virtual reality. As audience members become or feel part of the fictional world/virtual reality and perceive it as 'real' or 'the reality', they are immersed. Immersive theatre also immerses audience members, as the performance space creates place illusion and plausibility illusion that allows audience members to feel present within the fictional world/virtual reality. Presence through place illusion and plausibility illusion is generated among audience members when a fictional world/virtual reality creates the illusion of a 'real' world or 'reality' that enables audience members to interact with the fictional world/ virtual reality, as one would in real life. This illusion of place and plausibility immerses audience members as they are able to be present within the fictional world/virtual reality and preserve it as the 'real' or 'the reality'. This, however, requires a willing suspension of disbelief on the part of the audience.

Although some immersive theatre productions either immerse audience members within a fiction world or virtual reality, it can also be argued that through incorporating elements of system immersion (advanced technology) into the theatre space can create an intermedial performance (section 2.2.1.4). Through incorporating live and mediatised elements within the theatre space, generate mixed realities that enable audience members to experience different levels of presence within a production that further immerses them.

6.1.2 Intermediality

As discussed in Chapter Three, intermedial performances are able to immerse audience members through placing technology into the theatre space and exposing the media relations, thus placing audience members in-between different realities. Intermedial performances are able to generate system immersion, narrative immersion and challenge-based immersion within the represented realities (the fictional world/virtual

reality/both) within the performance[193]. Intermedial performances are also able to immerse audience members through allowing them to be present within the performance. Audience members are able to be present through the three-pole mode of presence; the three-dimensional model of attention; the presence as a three-layered, bio-cultural mechanism, and place illusion and plausibility illusion.

System immersion is generated when highly technological media are incorporated into the theatre space that creates a virtual reality. Audience members are able to enter the virtual reality and interact with the environment, thus forming a relationship with the environment and enabling them to perceive it as 'reality' or 'the real'. Allowing audience members to enter and interact with the virtual reality, also generates a sense of presence among audience members that immerses them. The virtual reality allows audience members to be present through experiencing three-dimensional model of attention. Three-dimensional model of attention takes place when audience members gain the focus of attention, the locus of attention, and the sensus of attention, within the virtual reality.

Within an intermedial performance, both narrative immersion, as well as challenge-based immersion is generated only within one of the represented realities (either the virtual reality or the fictional world or both), at a time. Narrative immersion can occur when audience members are able to form a connection or relationship with one of the/or both of the represented realities (the virtual reality or fictional world) within a performance. Audience members feel part of the represented reality/realities and thus perceive it/them as 'reality' or 'the real'. Challenge-based immersion also generates immersion in the represented reality/realities through allowing audience members to interact with the environment or even perform tasks. Allowing audience members to performed tasks and overcome obstacles enable them to direct their attention towards the task and allow them

[193] It is important to note that within intermedial performances, audience members are able to be immersed within either one of the mixed realities or both. Although audience members are able to be immersed within both the fictional world and virtual reality, they are only able to be immersed within one of the realities at a time. Thus allowing the fictional world and virtual reality to still be seen as two different reality although audience members are able to be immersed in both realities within a performance.

to feel part of the fictional world or virtual reality, thus being immersed. The represented realities (the virtual reality or fictional world) also generates immersion through enabling audience members to feel present within the performance and experience place illusion and plausibility illusion. Immersion is generated through place illusion and plausibility illusion as audience members are able to interact with the fictional world or virtual reality, as one would in the physical reality. This interaction with the fictional world or virtual reality allows audience members to be present within the represented reality and perceive the fictional world or virtual reality as the 'real' or 'the reality' and thereby be immersed.

As seen in section 3.2.2.3, the mixed realities within intermedial performances also generate presence among audience members as they enable audience members to shift between different realities, thus heightening their presence. The three-pole mode of presence generates immersion among audience members by allowing them to shift between the virtual space, the mental imagery space or the physical space. Mixed realities enable audience members to either be present in a represented reality or heighten their reality that enables them to be present in both the physical and the virtual environments simultaneously, thus immersing them. Intermedial performances also generate presence as a three-layered, bio-cultural mechanism. These mixed realities generate proto presence among audience members that enables them to distinguish between the self (core consciousness) and non-self (extended consciousness) that enable all three layers of presence to be present simultaneously. Immersion is generated as audience members become aware of their bodily here and now, thus heightening their sense of presence and thereby becoming immersed.

As discussed in section 3.2.2.3.2, the incorporation of live and mediatised elements within an intermedial performance also generates liveness among audience members and enhances immersion. Intermedial performances are able to generate liveness as the performance consists of live and mediatised elements that take place in the immediacy of the theatre space; it is this immediacy that is able to make mediatised elements 'live' again. As mediatised elements take place in the here and now of the theatre space, audience members are able to interact with or see the mediatised elements for the first

time, thereby enabling the mediatised elements within the production to become ‘live again’.

6.1.3 Transmedia storytelling

Chapter Four focuses on elements of transmedia storytelling extensions that can be used to generate system immersion, narrative immersion, and challenge-based immersion among audience members. Audience members are also able to immerse within the production through being present within the performance. Audience members are able to be present through a three-pole mode of presence, presence as a three-layered bio-cultural mechanism, and place illusion and plausibility illusion.

System immersion in transmedia storytelling is possible as audience members are able to immerse within the fictional world through the use of technology. For example, audience members are able to use a smartphone to access transmedia storytelling extensions, which provide information regarding the fictional world. Narrative immersion takes place when audience members are guided and encouraged to find different segments of narrative in various transmedia storytelling extensions. When these different segments of narrative are read together, audience members are able to form a connection with the fictional world, as well as the objects and characters within the fictional world, and perceive it as ‘real’ or ‘the reality’; thus, they become immersed within the fictional world. Audience members are also immersed when the different transmedia storytelling extensions are read together, and audience members are able to be present through the illusion of place and plausibility (section 5.4.1).

Different transmedia storytelling extensions provide audience members with additional information regarding the characters, spaces, objects and unfolding events within the fictional world. This additional information regarding the fictional world generates narrative immersion (temporal immersion, spatial immersion, and emotional immersion) that allows audience members to form a relationship with the fictional world and perceive it as ‘real’ or ‘the reality’. Challenge-based immersion takes place when audience members

participate in transmedia storytelling extension; for example, participating in fan culture through liking and commenting on social media platforms. Allowing audience members to access certain transmedia storytelling extensions that exist on social media platforms; for example, *Facebook* or *YouTube* and permitting them to participate in fan culture, generates liveness (group liveness and online liveness). Transmedia storytelling has the potential to generate online liveness and group liveness, as it allows the performance space and multiple audience members to come together simultaneously, interacting with one another and even contributing to the fictional world on online platforms. Group liveness is generated when viewers are able to become participants and take part in fan culture, thus contributing to the narrative, as well as sharing their experience with one another. Online liveness is generated when the transmedia storytelling extensions are able to bring audience locations together at the same time (section 4.3), thereby enhancing immersion.

As discussed in section 5.4, transmedia storytelling can also enable audience members to be present, which generates immersion. The three-pole mode of presence is generated through permitting audience members to read different transmedia storytelling extensions up against each other, enabling audience members to be in-between different realities. These different realities are created when the audience members view the same character on different transmedia storytelling extensions, within the same time and space, which create different representations of the same character. Immersion is generated as the audience members' presence is heightened through shifting between the different realities within the transmedia storytelling extensions that enable the viewer to be present within the represented realities, as well as the physical reality. Presence as a three-layered, bio-cultural mechanism is also experienced through the mixed realities within the transmedia storytelling extensions that generate proto presence, which enables audience members to distinguish between the core consciousness and the extended consciousness, thus placing emphasis on the bodily here and now. Immersion is generated as audience members' sense of presence is heightened.

Thus, it can be argued that incorporating transmedia storytelling extensions into a intermedial performance, not only creates mixed realities (a fictional world and virtual reality) but also creates an additional transmedia storytelling reality, that exists beyond the live performance and extends the fictional world further than a theatre performance is capable of.

6.1.4 A medial immersive theatrical production

Through using Nilsson, Nordahl and Serafin's (2016) outline of a theoretical framework, it was proved that intermediality and transmedia storytelling can be used to create a medial immersive theatrical production which immerses audience members. The medial immersive theatrical production is able to immerse audiences through system immersion, narrative immersion, and challenge-based immersion and be present through the three-pole mode of presence; the three-dimensional model of attention; presence as a three-layered, bio-cultural mechanism, and illusion of place and plausibility.

Using elements of intermediality in the medial immersive theatrical production (through allowing the performance space to consist of live and mediatised elements, characters and objects) creates mixed realities that immerse audience members. As discussed in section 5.2.1.4, mixed realities immerse audience members as they are able to feel present through experiencing the three-pole model of presence. Audience members experience the three-pole model of presence when they constantly shift between the different realities (the physical reality, virtual reality and the fictional world) and are present within these realities, thus heightening their sense of presence and thereby become immersed by the experience. Presence as a three-layered, bio-cultural mechanism also generates immersion. As discussed in section 5.2.1.6, the mixed realities allow proto presence among audience members that enable them to have extended consciousness and core consciousness simultaneously, thus generating immersion.

Transmedia storytelling extensions also expose the intermedial relations between the different transmedia storytelling extensions and create mixed realities. These mixed

realities also generate presences among audience members and immerse them. Transmedia storytelling extensions create mixed realities through providing audience members with different representations of the same character on different extensions and allow the audience members to read these different extensions up against one another. These mixed realities, created through transmedia storytelling extensions, also generate three-pole model of presence and presence as a three-layered, bio-cultural mechanism. Section 5.2.1.4 states that the three-pole mode of presence is generated through allowing audience members to shift between the different realities represented in the different transmedia storytelling extensions, thus heightening the audience members' physical presence. As seen in section 5.2.1.6 presence as a three-layered, bio-cultural mechanism is also generated through permitting the audience members to view the live characters, as well as themselves on the mentioned *Facebook* or *Instagram* page, while being present within the live production.

The medial immersive theatrical production also allows audience members to be immersed within the fictional world and the virtual reality, as well as the transmedia storytelling extensions that generate system immersion, narrative immersion, and challenge-based immersion. As discussed in section 5.2.1.1, system immersion is generated through allowing audience members to enter the virtual environment and be inside the virtual reality. Allowing audience members to be inside the virtual reality and able to interact with the virtual reality generates a three-dimensional model of attention. Audience members feel present within the virtual reality as they are able to obtain a focus of attention, a locus of attention and a sensus of attention, thus perceiving the virtual reality as 'the reality' and being immersed (section 5.2.1.5). System immersion can also be generated through enabling audience members to access the fictional world and form part of the fictional world through technological devices; for example, a computer or smartphone.

All three realities (fictional world and virtual reality, as well as the transmedia storytelling extensions) generate narrative immersion by permitting audience members to explore the virtual reality and fictional world (section 5.2.1.2). Narrative immersion is generated as

audience members are able to explore the realities, find out how events unfold and form an emotional connection with the spaces, objects and characters, within the different realities. All three of the different realities (fictional world, and virtual reality, as well as the transmedia storytelling extensions) also enable audience members to feel present within the represented realities, through place illusion and plausibility illusion. Audience members are able to interact with the different realities as one would in the physical reality, thus enabling all three realities to feel 'real' and like 'the reality' and enhance a sense of liveness.

As discussed in section 5.2.1.3, challenge-based immersion is also generated within all three different realities through allowing audience members to perform tasks and overcome obstacles within the represented reality. Audience members are able to interact with live characters, physical objects and physical spaces, as well as virtual characters, virtual objects and virtual spaces within the performance. The transmedia storytelling extensions are also able to generate challenge-based immersion, as they are able to search for different segments of narrative and participate in fan culture (through commenting on the characters' social media accounts).

The use of intermediality and transmedia storytelling within a medial, immersive, theatrical production also generates liveness. Intermediality is used to generate liveness, through productions that consist of live and mediatised elements that enable the mediatised elements to become 'alive' again, within the immediacy of the theatre space. Transmedia storytelling generates online liveness through allowing audience members to access part of the production that is live streamed on social media accounts (*Facebook* and *Instagram*), enabling audience members to access segments of the production at any given time and location, bringing different audience members' locations and the performance location together. Transmedia storytelling also generates group liveness through allowing audience members to participate in fan culture and share their experience with one another at any given time a location, thereby having a shared online experience. Thus, intermediality and transmedia storytelling extensions can be used to

immerse audience members on various levels and generate liveness among audience members.

6.3 Shortcomings of the study and recommendations for future research

One of the shortcomings of this study is that I could showcase only a narrative video that demonstrates how a medial, immersive, theatrical production may hypothetically be created and function in the UP VR cylinder. The medial immersive theatrical performance did not take place and as such, was not attended by audience members. The efficacy of my framework and hypothetical production, drawing on elements of immersive theatre, intermediality and transmedia storytelling, was not tested. This is an area of investigation for further research. The audience members' experiences, as well as their levels of immersion were analysed, providing yet another avenue for further research.

Other shortcomings were detected when creating the narrative video was the fact that I had to obtain special permission to take the stereo camera (VUZE+ camera) off campus (the University of Pretoria) was not possible at the time. I used the camera on campus only. Using only locations on the Hatfield campus had a direct influence on the narrative of the production and in creating the fictional world, together with the virtual reality, as it limited the possibilities of developing differentiated and more complex narratives.

The size of the VR cylinder also proved to be challenging when allowing a live actor to interact with the virtual character. This is because the virtual character had to be captured at a distance of about three to five metres away from the camera, in order to ensure that the virtual character did not project too big onto the four-metre-tall walls in the VR cylinder. If the projection of the virtual character is too big, it will be out of proportion to the live audience member or the live character present during the live production.

When using the VUZE+ camera, it is extremely difficult to cut and edit different video clips together. This is due to the camera's recording eight different angles simultaneously, stitching them together to create a 360-degree, three-dimensional image. Because of this,

I was only able to capture one long shot and cut out the beginning and end of the video that showed me pressing record and stop on the camera. As only one long shot could be captured, actors' movements and dialogue should be without fault, with all movements and dialogue choreographed and rehearsed beforehand. All actors' entrances and exits into the scene also needed to be choreographed precisely, as the camera captures everything and in extreme depth.

The VR cylinder also has some limitations; the three-dimensional glasses do not consist of tracking devices that allow the images/video to change according to the audience member's point of view. Audience members have to physically move around in the VR cylinder to change their point of view. The VR system also does not contain any form of joystick or wand that allows audience members to interact with the virtual reality. The only form of interaction between the virtual reality and audience members was created through a pre-recorded dialogue of the virtual character.

Computer generated virtual realities can also be designed and built to play in the VR Cylinder. These computer-generated virtual realities are custom-designed, virtual environments and are created by software developers or motion designers, which is very time consuming and expensive to build. Owing to the limitations of time and funding, I was not able to create a computer-generated virtual reality and was only able to capture and play a three-dimensional video of an actual location in the VR cylinder.

The sound in the VR cylinder also holds many challenges. The acoustic capabilities within the VR cylinder are limited. The five graphical projectors and the hardware cooling system created considerable background noise that made it difficult for actors to project their voices. The videos played within the VR cylinder have also never contained audio, resulting in the placement of where the sound was coming from and the images projecting the sound being unsynchronised. Other challenges also included the stereo cameras' poor quality sound recording that resulted in additional recording devices that had to be used to record the actors' dialogue.

6.4 Suggestions for further research

With reference to the shortfalls and the suggestions as to possibilities for further research, as discussed above, an actual medial, immersive, theatrical production should be created that is able to immerse live audience members. The rehearsal processes, as well as the audience members' experiences of the production should be captured and analysed, in order to indicate how different elements of immersion can be incorporated into a production and determine the different levels of immersion achieved among audience members, as well as actors within a production. Data of audience members' experience of how they are able to interact with the environment and interact with characters and objects within the environment, as well as fellow audience members need to be collected. This will prove that different elements can in fact, be used to generate different levels of immersion among audience members. After the production, audience members will need time to willingly participate in a focus group and reflect on their experience of the production. They can then determine how different levels of immersion can be achieved and how these levels impact their overall experience of the production.

Future studies could also address the levels of immersion generated from computer-generated virtual realities and virtual realities that consist of a physically real space within a medial, immersive, theatrical production. When creating a medial immersive theatrical production, different types of virtual realities could be incorporated into the production and the audience members' experience of the different virtual realities could be collected and compared. Different experiences and levels of immersion among audience members could be identified through collecting the data of audience members' experiences within a virtual reality that consists of a physically real space, and virtual realities that consist of computer-generated virtual realities.

Further research could also include testing the levels of immersion when providing audience members with three-dimensional glasses containing tracking devices, and providing audience members with joysticks or wands that allow them to interact with the

virtual reality, through picking up virtual objects and moving them around within the virtual reality and not only physically, in the VR cylinder.

The incorporation of transmedia storytelling extensions in a performance and how it influences the audience members' experience within a production, should also be analysed. The effect of audience participations on social media platforms and audience participants outside the theatre space, should be identified and how they affect the audience members' experiences of a production.

6.5 Concluding remarks

The use of technology can create intermedial performances that allow audience members to shift between different realities that immerse them. Audience members are also able to be immersed within the represented realities (fictional world/virtual reality/both), within an intermedial performance. Transmedia storytelling extensions can also be used to extend the fictional world beyond the theatre space, allowing the narrative to exist on social media platforms. Through allowing the fictional world to exist on social media platforms, audience members are able to access additional segments of the narrative phenomenon and explore the fictional world from any given location, using a smartphone or computer, thus creating a connected experience for audience members. Audience members are able to explore different segments of the narrative and even contribute to the fictional world. Some transmedia storytelling extensions even exist on social media platforms, thereby permitting audience members to participate in fan culture and form online communities through sharing their connected experiences with one another. Experiencing these connected experiences on social media platforms and participating in fan culture, creates liveness (online liveness and group liveness) among audience members. In a world shaped by COVID-19, the possibilities that technology and mediatisation offer theatre, should not be underestimated.

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Date……

Appendix A: Letter of Informed Consent: Actors

Dear Actor

Thank you for being willing to participate in my MDram research. This letter will provide you with the necessary information regarding my study and inform you about the nature of my study. It will also provide information on your role as a participant in the study.

1. **Description of the research**

The year 2020 and 2021 has showed us that it is necessary to re imagine the possible futures of post-COVID-19 theatre productions in South Africa. This study proposes that medial immersive theatre may be one such option for theatre post-COVID-19. This study aims to create a hypothetical framework for producing a medial, immersive theatre production within the confines of the UP VR cylinder and equipment, that will make use of aspects of intermediality and transmedia storytelling. The practical work will take place in a virtual reality (VR) cylinder at the University of Pretoria (in the Department of Mining Engineering) in the first semester of 2021.

2. Your role in the research process

All participants are required to explicitly agree to participate in any form of research. It is important to note that the research does not focus on you *per se*, but on the framework for the creative product that will be created. However, it is not possible to do this research without actors performing in the creative product. This form requires details of your role in the research process to ensure that you understand your role in the study before giving your consent to participate in the research.

As a performer, you will be required to:

- One actor will perform in a short video that will play in the VR cylinder. This actor will be seen as the “virtual character”.
- The second actor (the live character) will physically perform in the virtual reality cylinder and interact with the hypothetical audience members as well as the virtual character projected in the VR cylinder.

- A short narrated video will be record to demonstrate how the medial, immersive theatrical production functions. Permission for recording the demonstration is necessary for participating as actors in this study.

- The actor portraying the live character, will engage with transmedia storytelling. You (the live character) will have to record video diaries and take pictures of yourself as your character on *Facebook* and *Instagram* (not your personal profile). This is a crucial aspect of participating as an actor in the research and permission for this is necessary.

- Rehearse for one weeks on dates and times to be determined together by the performers and researcher (between March 2021 and May 2021 – depending on COVID-19 alert levels).

- Improvise during rehearsals.

2. Data storage and re-use

The narrated video recording and photographs that demonstrates how the hypothetical production functions, as well as consent forms of the process will be archived in the University of Pretoria's digital archive (Figshare) for 15 years. If I might need the data for further research, I will obtain written permission from you again.

3. Confidentiality and anonymity

Due to the recording of the narrated video that demonstrates how the medial immersive theatrical production functions, and the one actor (the live character's) image on social media accounts (thus a public performance), you will not be able to remain anonymous. Your name will be mentioned and photographs/ video of you may appear in the dissertation. The research does not focus on you as performer, but on the framework for the creative hypothetical production that will be created. Rehearsal etiquette demands that any personal information that might be shared during the rehearsal process remains confidential. Although performer responses to the creative process are not part of this study, it may become necessary at times to note your responses. Should that become necessary, you will not be identifiable by your responses in the dissertation as I will not use your name in referring to a response from you. I will use the phrase "one of the performers" or "the live character" and "virtual Character" to refer to performers' responses. You can indicate whether you wish to be credited for your role in the research.

4. Voluntary participation

You are invited to take part in the research on a completely voluntary basis.

5. Withdrawal

You can withdraw from the research process at any given time prior to the commencement of the rehearsal process. You will have time to engage with the performance concept and performance text through discussions with the researcher before deciding to commit to partaking in the research. As the success of a theatre performance relies on the presence of the performer in rehearsals and public performance, and the embodied resonance that develops between performers during rehearsals. Participants will not be able to withdraw ones the rehearsal process have started. In the case of emergencies, shifts in COVID-19 alert levels or contact with COVID-19 positive persons, your participation will be renegotiated. If you are not comfortable with any aspects the performance demands of you, alternatives will be created to your satisfaction.

6. Benefits

Participants will not be able to financially benefit from this research. Participants will only indirectly benefit from this research through gaining additional practical experience.

7. Potential risk

All the official UP policies involving precautions on the various COVID-19 alert levels will be followed. The creative work will only go ahead if COVID-19 alert levels allow for it. All official COVID-19 precautions will be put in place to protect the participants and researcher.

Health guidelines that will be followed during the COVID-19 pandemic

1. Social distancing will be adhered to.
2. Regular handwashing with soap or 80% alcohol-based sanitising hand rub. Sanitiser and soap will be provided by the researcher.
3. All participants will be required to wear an appropriate mask. Actors are only allowed to take off their masks when their performance is being recorded. It is also important to note, due to the nature of the study, the two actors performance will be recorded separately and you will not be required to interact with your co-actor within the same time and space.
4. All surfaces and areas will be sanitised.
5. If you suspect you have COVID-19, I will assist you to contact the appropriate health authorities.

8. Contact details

Researcher
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Hatfield, Pretoria 0028

PLEASE COMPLETE:

Consent

- I have read, and I understand, this consent letter.
- I voluntarily give my consent to participate in this study.
- I understand that my participation will not be anonymous.
- I (the live character) understand that I will need to use *Facebook* and *Instagram* as my character for the purposes of transmedia storytelling.
- I give consent for the recording of the narrated video-recording and photography of the rehearsal process.

I would like my name to be included in the credits of the dissertation. Please state yes or no _____

I would like my name to be included in the credits of the show. Please state yes or no _____

Participant's full name: _____

Participant's contact details:_____

Participant's signature: _____ Date: _____

Date……

Appendix B: Letter of Informed Consent for crew members: Making medial immersive theatre: mobilising intermediality and transmedia storytelling

Dear Crew Member

Thank you for being willing to participate in my MDram research. This letter will provide you with the necessary information regarding my study and inform you about the nature of my study. It will also provide information on your role as a participant in the study.

1. **Description of the research**

The year 2020 and 2021 has showed us that it is necessary to re imagine the possible futures of post-COVID-19 theatre productions in South Africa. This study proposes that medial immersive theatre may be one such option for theatre post-COVID-19. This study aims to create a hypothetical framework for producing a medial, immersive theatre production within the confines of the UP virtual reality (VR) cylinder and equipment, that will make use of aspects of intermediality and transmedia storytelling. The practical work will take place in a VR cylinder at the University of Pretoria (in the Department of Mining Engineering) in the first semester of 2021.

All participants are required to explicitly agree to participate in any form of research. It is important to note that the research does not focus on you per se, but on the framework for the hypothetical product that will be created. However, it is not possible to do this research without a crew member to assist with operating the VR cylinder. This form requires details of your role in the research process to ensure that you understand your role in the study before giving your consent to participate in the research.

2. **Your role in the research process**

As a crew member, you will be required to:

- Attend a meeting prior to recording the video that demonstrates how the hypothetical production will function (between March 2021 and May 2021 - depending on COVID-alert levels);
- Help with the setup of the VR cylinder and provide technical assistance assist during the recording of the narrated video.

Please note that you will be visible in the narrated video that demonstrates how the hypothetical medial immersive theatrical production functions. Permission for this aspect is necessary for participating as a crew member in this study.

3. Data storage and re-use

The narrated video recording and photographs that demonstrates how the hypothetical production functions, as well as consent forms of the process will be archived in the University of Pretoria's digital archive (Figshare) for 15 years. If I might need the data for further research, I will obtain written permission from you again.

4. Confidentiality and anonymity

Your assistance will be used when assisting with the VR equipment during the recording of the hypothetical production. The research does not focus on the crew member and your work *per se*. The crew member will not be mentioned by mane or referred to in the dissertation beyond the scope of the letter of intent. I will use the phrase "one crew member" or "the VR operator" if I have to refer to the crew member in the dissertation. You can indicate whether you wish to be credited for your role in the research.

5. Voluntary participation

You will be invited to partake in this study as a crew member on a completely voluntary basis as arranged via Mr De Beer and you will not be forced to participate.

6. Withdrawal

As the participants work on a voluntary basis, all participants can withdraw from the study at any given time without negative consequences.

7. Benefits

There are no direct benefits associated with this research.

8. Potential risk

All the official UP policies involving precautions on the various COVID-19 alert levels will be followed. The creative work will only go ahead if COVID-19 alert levels allow for it. All official COVID-19 precautions will be put in place to protect the participants and researcher.

Health guidelines that will be followed during the COVID-19 pandemic:

1. Social distancing will be adhered to.
2. Regular handwashing with soap or 80% alcohol-based sanitising hand rub. Soap and sanitizer will be provided by the researcher.
3. All participants will be required to wear an appropriate mask provided by the researcher.
4. All surfaces and areas will be sanitised.
5. If you suspect you have COVID-19, I will assist you to contact the appropriate health authorities.

9. Contact details

Researcher
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South Africa, 0028

PLEASE COMPLETE:

Consent

- I have read, and I understand, this consent letter.
- I understand that a narrated video of the hypothetical production will be
- recorded.
- I voluntarily give my consent to participate in this study.

I would like my name to be included in the credits of the dissertation. Please state yes or no _____

I would like my name to be included in the credits of the show. Please state yes or no _____

Participant's full names: _____

Participant's contact details:_____

Participant's signature: _____ Date: _____

Appendix C: Permission Letter

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Engineering,
Built Environment and Information Technology

To whom it may concern

This document hereby gives Jane Swanepoel, 13041950, permission to utilize the Kumba VR center at the Department of Mining Engineering for her study related to how intermediality and transmedia storytelling can provide a framework for an immersive theatrical event.

She will be assisted by the VRI lab at the Department of Information Science pending availability of resources and the facilities.

Koos de Beer
Head of the VRI lab
Department of Information Science