Metaleptic Narrative Form and Storyliving Experience in 360-Degree Fairy Tales

Metaleptik Anlatı Biçimi ve 360 Derece Masallarda Hikâye-Yaşantısı Deneyimi

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Abstract

The inevitable and natural changes brought about by technological innovations in society are restructuring the relationship between humans and life itself. This is because it is nearly impossible for any technology that becomes increasingly widespread not to engage with humans and exist disconnected from them. The most visible areas where this relationship manifests are in art and communication, which directly influence the ways in which perception occurs, especially in terms of vision. This study focuses on the changes brought about by virtual reality technologies in storytelling. This change involves presenting the content of fairy tales within a 360-degree immersive environment, involving the viewer within the fairy tale's setting, thus creating an experience. The aim of this study is to reveal the changes and innovations brought about by virtual reality technologies in fairy tales. In line with this aim, the fairy tale *The Turning Forest* (Oscar Raby - 2016),

selected as a sample, has been analyzed using narrative analysis method based on the concepts of metalepsis and meta-diegetic sound. According to the findings obtained from the research, the existing features of virtual reality technologies structure the fairy tale in a layered manner and this structure naturally reveals the metaleptic narrative form. The participant (audience) of the narrative is identified as the protagonist and the plot inevitably revolves around them. Furthermore, the use of meta-diegetic sound is associated with the protagonist's ability to interact, thereby strengthening the relationship with the metaleptic narrative form.

Keywords: *communication technologies, fairy tales, storytelling, metalepsis, meta-diegetic sound*

Öz

Teknolojik yeniliklerin toplumda yarattığı zorunlu ve doğal değişim, insanın yaşamla kurduğu ilişkiyi yeniden yapılandırmaktadır. Çünkü giderek yaygınlaşan herhangi bir teknolojinin, insanla ilişki kurmaması ve ondan kopuk bir biçimde varlık göstermesi neredeyse olanaksızdır. Bu ilişkinin en görünür olduğu alanlar ise görme ile algılama biçimlerini doğrudan etkileyen sanat ve iletişim alanlarıdır. Bu çalışma, sanal gerçeklik teknolojilerinin masal anlatısında yarattığı değişimi konu edinmektedir. Söz konusu değişim, masal içeriğini 360 derece seyirlik bir çevreyle sunan, seyreden kişiyi masal ortamına dâhil eden ve böylece bir deneyim ortaya koyandır. Çalışmada, sanal gerçeklik teknolojilerinin masallarda meydana getirdiği değişimleri ve yenilikleri açığa çıkarmak amaçlanmaktadır. Bu amaç doğrultusunda örneklem olarak belirlenen *The Turning Forest* (Oscar Raby - 2016) masalı, metalepsis ve meta-diegetik ses kavramları üzerinden anlatı bilimsel çözümleme yöntemine göre analiz edilmiştir. Araştırmadan elde edilen bulgulara göre, sanal gerçeklik teknolojilerinin mevcut özellikleri, masalı katmanlı bir biçimde yapılandırmış ve bu yapı metalepsis anlatı biçimini doğal bir biçimde karşımıza çıkarmıştır. Anlatıyı seyreden katılımcı (seyirci) ise başkarakter olarak belirlenmiş ve olay örgüsü kaçınılmaz olarak onun etrafında şekillenmiştir. Aynı zamanda, meta-diegetik ses kullanımı, başkarakterin etkileşim kurabilmesiyle ilişkilendirilmiş ve bu ilişki metalepsis anlatı biçimini güçlendirmiştir.

Anahtar sözcükler: *iletişim teknolojileri, masallar, hikâye anlatımı, metalepsis, meta-diegetik ses*

Introduction

Virtual reality, one of the most cutting-edge tools of technological innovation, transcends being merely a concept defining the era. Through a wearable headset, the individual "teleported" into a virtual space assumes a position of experiencing rather than merely observing the existing content. The significance lies in what the experience conveys. Experiencing a narrative in 180 or 360 degrees, within an immersive visual environment,

embodying it, and interacting with it, constitutes this significance. Therefore, the narrative presented through virtual reality technologies diverges from traditional forms and constructs a distinct structure of its own.

Virtual reality technologies, by transforming various contents into an experience such as games, films, and news, offer various narrative opportunities. One of the areas influenced by this technology is fairy tales. The unique narrative feature of fairy tales, which shatters reality from the very beginning, invites the reader/audience into a fantastical world beyond the physical realm. Thus, reality is expanded, the boundaries of reality blur, and anything becomes possible within the content of a fairy tale. The convergence of this narrative form belonging to fairy tales with virtual technologies raises a meaningful inquiry through reality. This inquiry revolves around bringing together the fairy tale, which is removed from physical reality, and virtual technologies that elevate reality to a hyper-dimension. The conjunction of these two phenomena, which define reality as a common ground, creates the hyper-reality experience of the extraordinary fairy tale content. Therefore, the unique reality of the fantastical world of fairy tales can also be experienced in physical reality.

The exploration within the boundaries of reality evokes the concept of metalepsis, which is a narrative form. In this regard, the narrative style presented by *The Turning Forest* (Oscar Raby - 2016) fairy tale in conjunction with virtual reality technologies is examined in the study, and the relationship established by the narrative with the concept of metalepsis is elucidated. The sound setup, which holds significant importance in 360-degree virtual narratives, is also deemed crucial in this examination. The interactive feature provided to the participant by the narrative's sound contributes to the creation of an unconventional structure; hence, the coexistence of meta-diegetic sound setup and metaleptic narrative form is noteworthy. One of the primary inquiries of this study is to explore how these two concepts construct a narrative framework in *The Turning Forest* fairy tale and to question the possibilities of creating a storyliving continuum through this framework.

1. Theoretical background: 360-Degree fairy tales as an emergent narrative form

Fairy tales, which break the reality of everyday life with fantastic elements and create a magical universe in this way, have always been intriguing due to the magic they inherently contain. Fairy tales are a reconfiguration of reality in another form. This configuration expresses a unique language that extends beyond the static. Thus, the structure of fairy tales has found its place among narratives and established a distinctive mode of representation. As Ryan also points out, life is the existence of human life or the lives of anthropomorphic beings. This means the totality of experiences accumulated by the subject between birth and death. The representation of individual lives and the communication thereof is achieved through narrative (Ryan, 2017: 517). For humans, a life distant from storytelling presents a bleak outlook. It is a natural tendency to predict future expectations within the context of past events and present circumstances and their potential impacts on the future. No matter how fragile, narratives are crucial for a sense of self, ways of navigating the world, and achieving catharsis (Dunnigan, 2004: 4).

At the same time, every fairy tale reader, whether young or old, is curious about the magic of what transpires within the story. Therefore, it is possible to develop certain questions: What gives fairy tales this enchantment? Where do these fairy tales originate? Why are they so compelling? By learning more about themselves, people also seek to learn more about fairy fairy tales (Zipes, 2015: XV). The magic of fairy tales relies on the suspension of disbelief. The events in the story are not expected to be realistic; more importantly, the magic is achieved through the extraordinarily simple, artistic, and ordinary narration of the story. Thus, in fairy tales, wolves, eagles, ants, or fish can speak, and many other seemingly mundane occurrences are perceived as entirely normal within that context (Bacchilega, 1997: 28). Indeed, the phrase "once upon a time" signals a transition to a reality different from our own (Tiffin, 2009: 13). In some of these narratives, the fairy tale realm is depicted as a parallel universe to the human world, governed by its own natural laws. For example, in these stories, time passes at an extraordinary pace. Therefore, a year in the fairy tale world can be equivalent to a hundred years in the human world. Human visitors do not perceive the rapid passage of time in the fairy tale world, often resulting in disastrous consequences. Although their visits seem brief, nothing is as they left it when they return to their own world (Bottigheimer, 2006: 213). Thus, being part of the magnificent universe of the fairy tale entirely depends on recognizing the artificiality of that universe. The shared awareness between the author and the reader about the functioning of the genre relies on the definition of the text as a created object, rather than an attempt to recreate reality (Tiffin, 2009: 13).

Nevertheless, it is evident that there are numerous different definitions of what constitutes a fairy tale. For instance, there is no consensus on whether stories with unhappy endings or narratives deemed insufficiently magical fall under the definition of a fairy tale. Such interventions, which adopt a complex approach to the subject, tend to muddy the waters further, regardless of their good intentions. Moreover, these types of endeavors often involve specific ideological undertakings and attempt to create an "ideal" fairy tale that might exclude stories that have been accepted as fairy tales for centuries (Smith, 2007: 6).

Furthermore, fairy tales serve as a vibrant field for exploring social conflicts, psychological phenomena, the attitudes of large segments of society, and even everyday habits (Bottigheimer, 1989: 343). Fairy tales continually modernize themselves, replacing older cultural elements with newer ones (Röhrich, 2014: 4). Since the beginning of the 21st century, fairy tales have not only become globally popular but have also succeeded in captivating audiences with imaginative and dazzling retellings through new media. Indeed, modern fairy tale adaptations, commonly seen in popular culture, diverge significantly from classical fairy tales. In this context, the fundamental question to be asked is: How is today's media transforming fairy tale narratives, and what kind of impact is this transformation creating? (Schwabe, 2016: 1-2).

One of the contemporary technological manifestations of societal developments is in the field of virtual reality. This field, with its unique new features, transforms narratives from their traditional forms and replaces them with an experience-focused format that includes the participant. Through VR (Virtual Reality) headsets, which also encompass wearable

technologies, this field becomes a narrative space where physical reality is suspended, and the virtual environment directly affects the participant. Consequently, the person experiencing this new "place" becomes part of the story. Being part of the story, in some cases, means living and experiencing the story in real time. This concept is conceptualized as emergent narrative.

In emergent narrative systems, the act of authorship is limited to constructing the story. This activity involves creating characters and their environments, and providing users with necessary background information. The system does not have a predetermined ending or a fixed timeline of events. The role of the creator is framed around establishing a high-level plot. Although there is an idea of what the characters can do, there is no absolute guarantee that they will behave as expected (Aylett et al., 2005: 305). In other words, it is not possible to predetermine the narrative in this approach. Instead, the course of events emerges from the actions of the characters, and these actions influence the narrative trajectory (Swartjes, 2010: 6). Thus, interaction is the fundamental element of emergent narrative. Interaction is a prerequisite for the emergence of this effect (Walsh, 2011: 76). Character-focused approaches in interactive storytelling have great potential for story generation. Despite the deterministic nature of their fundamental techniques, various factors contribute to the unpredictability of the story's development (Cavazza et al., 2022: 1080). At this point, the user's ability to interact with the virtual environment and move freely is crucial. This largely enables the desired sense of presence to be achieved. However, this feature creates challenges in determining the user's role within a narrative structure. At a basic level, the user's freedom to be in any location in the virtual environment can also lead to missing certain situations (Aylett, 2000: 7). In traditional books and films, the narrative is based on a narrative arc consisting of a beginning, middle, and end. This arc is a familiar progression that starts with exposition, moves through conflict, rising action, and climax, and continues with falling action and resolution. Almost every event in the narrative is causal and contributes significantly to the story's progression (Barkholt-Spangsbo & Arbjørn, 2021: 121). The consistency and coherence of events in conventional stories allow them to be seen as narratives. Regardless of how complex the cause-and-effect relationships may be, they not only provide certainty but also evoke a distinct pleasure. This thread is what transforms a narrative into a compelling story. While it is possible to attach many things to such a thread, the uncanniness of the thread can cause discomfort for readers seeking a story. Therefore, the challenge posed by emergent behavior to narrative understanding is not only the absence of central causal control or the treatment of coincidence, but also the lack of a narratable clue (Abbott, 2008: 233). However, narratives that focus on the user's experience at this point offer interactive and emergent storytelling as an effective option. Because the features presented by virtual technologies are an alternative to what currently exists. This alternative is an experiential form that requires participation in the story, establishing an active existence. Thus, the space where the participant is immersed in images, showing existence in the story, becomes the instantaneous location where events unfold. These new features in the narrative naturally also affect fairy tales. *The Turning Forest* (Oscar Raby - 2016), a fantastical, interactive, emergent 360-degree fairy tale narrative, to be examined in this study, embodies these characteristics that create new forms within the

fairy tale genre, bringing forth a range of questions open to interpretation. Because this fairy tale, where the participant is part of the story, demonstrates the storyliving effect. Therefore, following interaction as the foundation for emergent storytelling, another element will be storyliving.

2. Purpose and methodology

This paper, focusing on 360-degree narrative storytelling, aims to elucidate the changes brought about by technological advancements in storytelling and the evolving forms they take. Thus, it will become possible to understand the tight relationship between technological innovations and story creation in the context of current technologies. The sample for this study is *The Turning Forest* (Oscar Raby - 2016) fairy tale, chosen in line with this purpose and significance. The fairy tale centers on an adventurous journey undertaken by the participant alongside a fantastical creature in an enchanted forest. This journey is also a real-time, sound-based experience. For this reason, this form of VR fairy tale necessitates examination within the context of a metaleptic narrative structure. The 360-degree virtual reality narrative feature demonstrated by the relevant sample qualifies it as a layered structure due to the effects it provides such as immersion, presence, interaction, and experience. To comprehensively grasp this layered structure, narrative analysis methodology is employed in the research. Within this method, Genette's concept of metalepsis, which is attributed importance, is analyzed through the selected sample. Gorbman's concept of meta-diegetic sound, which supports the metaleptic features presented in the narrative, is another important concept utilized in this analysis.

2.1. Metalepsis and the concept of meta-diegetic sound in narrative

Metalepsis fundamentally entails the transgression of the 'sacred boundary' between the world of the telling and the world of the told. In literary theory, such a paradox is often understood as a departure from conventional views or beliefs, characterizing an 'unnatural' form of expression (Pier, 2016: 337). Metalepsis is a concept that designates a transgression of boundaries between story and discourse, author and character, reader, and the boundaries between storyworld and reality (Effe, 2017: X). Thus, metalepsis combinens representations of contradictory concepts and renders two worlds perceived as mutually exclusive interconnected at the same time. Possible connections between these worlds include partial or complete conflation, movement from one place to another, inter-world communication, gaining knowledge of the other world, and as well as creating a representation of the other world (Feyersinger, 2010: 281). Although metalepsis emphasizes an 'unnatural' structure, especially structures that serve as models for 'mimetic' narratives and those long considered 'natural' in Western culture are not completely suspended or rejected. In fact, they are used as a ground for perceiving and defining the 'unnatural.' This is because the elimination of 'natural' categories also eliminates the definition of the 'unnatural' (Nielsen, Alber & Richardson, 2013: 135).

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Metalepsis perhaps more so questions how we conceive the relationship between metaphor and metonymy, as well as the processes of substitution or reduplication in language. Metalepsis is a miniature language game. With some effort, the figure can be deciphered, even leading to enjoyment of the creativity it provides. Metalepsis is a boundary-crossing figure. At times, it pushes boundaries, testing the understanding and patience of the reader (or listener) (Cummings, 2010: 223). The critical point that Metalepsis encompasses for all cases is the transition of an entity from one ontological boundary to another world (Bell, 2016: 296). Only ontological metalepsis involves the disruption of boundaries that are physically or logically impossible, thus carrying a supernatural implication. In essence, all examples of metalepsis are physically impossible. This is because in the real world, it is not possible for two different ontological domains to interact. For instance, a fictional character cannot communicate with their author in a literal sense, and an author cannot step into the fictional world they have created. Some ontological metalepsis also involve logical impossibility. This is because it implies that the same character cannot exist simultaneously in two different ontological domains (Bell & Alber, 2012: 167).

When we examine the developmental process of information technologies, it is observed that each of them has profound effects on social life. For instance, cinema and photography, among others, have facilitated the preservation of a new type of data and each has created new art forms. The advancement of digital technologies has had a wide-ranging impact across various fields, from economy to politics, from popular entertainment concepts to social and everyday life. The presence and development of computers have also influenced the arts, particularly in visual arts with features such as digital installations and image manipulation. In this context, one of the fundamental questions is what these developments do for narrative (Ryan, 2006: XII). The current impact of virtual technologies is characterized by the dominance of metaleptic structure in narratives, and naturally, the presence of the participant within this layered structure. As Bell also mentions, interactional metalepsis emerges when the ontological boundary between the reader (actual world) and the story world is crossed. Therefore, interactional metalepsis, like all types of metalepsis, are ontological (Bell, 2016: 296). In addition to all of these, another narrative element that contributes to the construction of the narrative is the use of sound and music in storytelling.

Narrative media music, which is used for storytelling purposes in multimedia such as film, television, or computer games, becomes one of the primary sources of musical experience in our daily lives. Although typically experienced at an unconscious and unreflective level, such music actively contributes to the narrative through multimodal interaction with visuals, speech, and sound effects. Often, what we see (or perceive to see) is largely influenced by what we hear (Wingstedt, Brändström & Berg, 2010: 193). However, it differs from music, lighting, and other elements of film in many important ways. First, we hear the music, we don't see it. Hearing is more indirect than visual perception; While seeing something means instantly identifying light rays with the object reflecting them, in hearing we do not automatically identify a sound with its source. Moreover, hearing requires a longer period of time to recognize a sound stimulus compared to visual perception. Thus, hearing is more

selective and lazier than multiple visual events; consciously focuses on one or at most two auditory events at a time (Gorbman, 1980: 183). Undoubtedly, one of the significant elements contributing to narrative is sound and music. These elements, which are also among the predominant factors of the fairy tale to be examined in the study, are important issues that advance, enrich, and envelop the story with emotion. The use of sound in narrative is typically conceptualized in two main ways: diegetic and extra-diegetic.

Diegetic sound is the sound that emerges through a character and is heard both by the audience and the character. Extra-diegetic sound, on the other hand, is the sound that is conveyed directly to the audience independently of the character's presence (Percheron & Butzel, 1980: 19). A more common strategy is to draw the audience into a character through the fantastical gap between diegetic and non-diegetic realms, traversing multiple axes such as empathy/anempathy, objectivity-subjectivity, and aural perspective (Stilwell, 2007: 193). These concepts have also generated their own subcategories, giving rise to terms such as extradiegetic, metadiegetic, ambidiegetic, and even "source music" throughout the process (Smith, 2009: 1). It is beneficial to elaborate on the meta-diegetic sound among these, in order to better elucidate the narrative style of the sample determined in the study.

Meta-diegetic sound events are indicators of situations that occur prior to diegetic events. Extra-diegetic sound, on the other hand, signifies events that occur after diegetic events. When the experience of extra-diegetic or meta-diegetic events occurs, they typically emerge as a result of a spatial and temporal hierarchy between sound events (Walther-Hansen, 2015: 35). The use of meta-diegetic sound is one of the best ways to indicate a character's subjective perception of reality. Like oneiric sound, meta-diegetic sound is also a sign of deviation from normative film sound towards the altered subjective sound of states of consciousness (Milicevic, 2013: 3217). One of the non-diegetic sounds is the meta-diegetic sound. This means a sound that characterizes subjectivity, such as the inner voice of a character or a sound that mimics the character's perception, semantically overloaded and alienated by other means (Görne, 2019: 25). The use of meta-diegetic sound, which belongs to the film but does not characterize diegetic production, signifies a wholly subjective, perceptual use of sound. It is observed that this usage, along with virtual narratives that involve the participant in the story, transforms into a more intricate and effective form. This is because the audience (or participant) is no longer a passive spectator of the story but an active entity. Therefore, all these narrative techniques already in use, through the technology surrounding them, both maintain their current structure and make them sustainable with new expansions. Hence, it is crucial to reveal virtual reality narrative structures in order to determine the form of the story and its impact on the participant.

3. Analysis and findings

In this section of the study, the selected sample, *The Turning Forest* (Oscar Raby - 2016), is being analyzed using a narrative analysis method. The analysis focuses on the concepts of metalepsis and meta-diegetic sound within this sample. Thus, it will be possible to examine how the metaleptic structure of the 360-degree virtual reality fairy tale contributes to the storyliving experience.

3.1. Multi-layered narrative

In *The Turning Forest*, where the story unfolds within a 360-degree panoramic view, the immersive, embodied, interactive, and experiential elements facilitated by virtual technologies result in a layered structure right from the outset. This structure is primarily initiated with the inclusion of the individual (participant-user) within the narrative. This situation, markedly different from merely watching or reading the story, allows the fairy tale to evolve into an emergent narrative, thus assuming the form of an experience. Experiencing the narrative directly as a lived experience is a consequence of the story's layered nature. At this stage, it would not be wrong to say that genres blend into each other, giving rise to a new form through amalgamation. Particularly in arenas such as gaming and cinema, this phenomenon becomes even more pronounced. As Bryce and Rutter suggest, it is possible to argue that games are increasingly becoming more cinematic, and there is a degree of closeness between the aesthetics of games and films (Bryce & Rutter, 2002: 7). Consequently, this proximity and amalgamation among genres also influence the forms of stories, impacting the layered structure of narratives.[1]

Layered Story Structure
Participant
Emergent Narrative
Experience

Table 1: The fundamental elements that reveal the layered narrative structure of the fairy tale

The sounds heard at the beginning stage of the fairy tale and the fantastical creature that emerges thereafter are other figures that reveal the layered narrative structure. The sense of being there acquired by the participant through virtual technologies highlights the importance of space as a significant element. This is because the participant evaluates the fairy tale space alongside other characters. Thus, the narrative transforms into an adventurous journey that includes the participant. Starting in a magical forest, this journey diversifies with changing spaces and interactions taking place within them. The existing variety arises from the structured setup that enhances the immersive effect, adds dynamism to the narrative, and combines this dynamism with interaction. Therefore, the fairy tale space and the sense of presence within it support the layered narrative through actions involving movement.
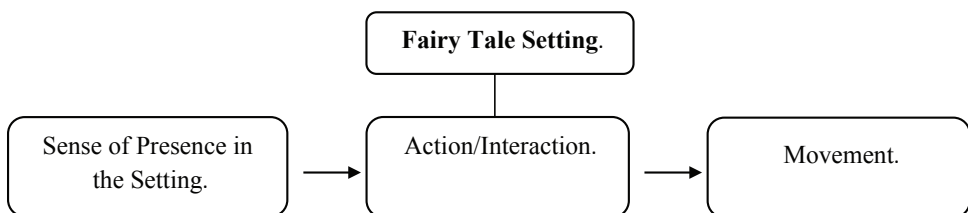
Figure 1: The impact of the fairy tale environment on the layered structure

The element of interaction within a virtual world provides the user with an immersive environment. Most narrative-focused virtual worlds progress within predetermined sequences of actions, where characters play the same elements of the same story each time. In contrast, a system that creates a new narrative structure for each user session can also adapt its narratives to the individual preferences or needs of the user (Riedl & Young, 2003: 47). One of the fundamental features of virtual reality technologies, interaction, is clearly evident in the examined fairy tale. This feature supports the metaleptic layered structure of the story. Primarily, the heart-flower patterned figures that the participant can joyously spread around, and the melodies they can create, along with the changing space, provide flexibility in the narrative. The meaning generated by this freedom also aligns with the definition of emergent narrative. The situation here is more about creating subjectivity within the story rather than directly influencing its flow. The images and sounds that the participant creates in the environment they are in at that moment are in line with the narrative structure of the fairy tale; in other words, the colorful world of the fairy tale interacts directly with the participant through sound and visuals. Thus, the fantastical space in which the story takes place is enriched through subjective participation and setup. This situation is an unusual structure that occurs in the narrative structure with the action and interaction elements provided by virtual technologies. Therefore, the 360-degree virtual fairy tale space can undergo instant changes through the participant's real-time actions.

The interaction that begins with the initial moments of the fairy tale continues with the illusion of movement in the space. In essence, the mobility here is more about the progression of the story rather than the participant's own choice. However, elements such as presence and interaction provided by the VR narrative structure at this point diverge the progression in the story from a conventional narrative structure. Because this progression based on movement not only elevates the events to a new dimension but also presents the participant as the central figure[2] at this point. Therefore, the situation experienced at that moment is more than just a path in the story. Time and space are changing, and the participant is compelled to move in this change. Moreover, interaction is also included in these moments. Thus, while the static structure surrenders itself to motion, the element of subjectivity created by interaction adds another layer to these moments, enriching the layered structure.

| Interaction	
I. Stasis	II. Mobility
III. Static Space	IV. Changing Space

Table 2: Expansion of the layered structure

The layered narrative structure of the examined fairy tale, *The Turning Forest*, presents it as a metaleptic framework. However, the metaleptic structure of this fairy tale, presented through virtual technologies, appears quite natural. The basic form of metalepsis, which moves between boundaries, shows a harmonious relationship when combined with the structure of a 360-degree fairy tale narrative experienced through a VR headset. The virtual narrative structure, defined by effects such as immersion, embodiment, presence, interaction, and experience, strengthens the narrative form of metalepsis in a way. Thus, the fantastical reality of the fairy tale will have the potential to transform into a hyper-reality.

3.2. Protagonist as participant

While real-life interactions provide opportunities for personal experience, the question of why narratives are so important is meaningful. This is because narratives provide a suitable environment for attributing character. In real life, people cannot always reflect their true selves, making the channels for acquiring information about character quite noisy and making inference difficult. However, the behavior of a character within a narrative is representational, and the narrative itself is a work of art. In other words, the narrative is the form of representation it aims to be (Currie, 2009: 63). One of the most significant effects of virtual technologies is that they involve the person experiencing the narrative in the story. Therefore, the position of the participant within the narrative and the impact they have on the story become important. The fairy tale characteristic of the narrative under study is particularly significant in terms of the departure from reality and engagement in the virtual world. The fantastical world of the fairy tale transcends the form of being read or watched, opening up imaginary environments beyond this reality to experience. Thus, the feeling of being inside a fairy tale book is not a distant sensation that is difficult to achieve through virtual technologies. This situation strengthens the construction of metalepsis within the narrative.

In the fairy tale analyzed in this paper, the participant is positioned at the center of the story. The events in the fairy tale developing around this central position designate the individual experiencing it as the protagonist. Moreover, the interactive feature embedded in the plot further strengthens the participant's role as the protagonist. Consequently, the narrative of the fairy tale evolves around the participant, allowing for interaction. Additionally, the participant's central position necessitates an obligatory relationship with the fairy tale setting. Due to the hyper-effect created by virtual reality, the person experiencing it feels a sense of presence and becomes the focal point of the plot. This situation highlights first the participant's position within the setting and then the story revolving around the person positioned as the protagonist. According to the functioning of the fairy tale, the individual can experience this fantastical universe in a completely safe manner or, in some cases, within a sense of unease. Therefore, there is a strong interrelationship between the fairy tale setting, the protagonist's position, and the plot.
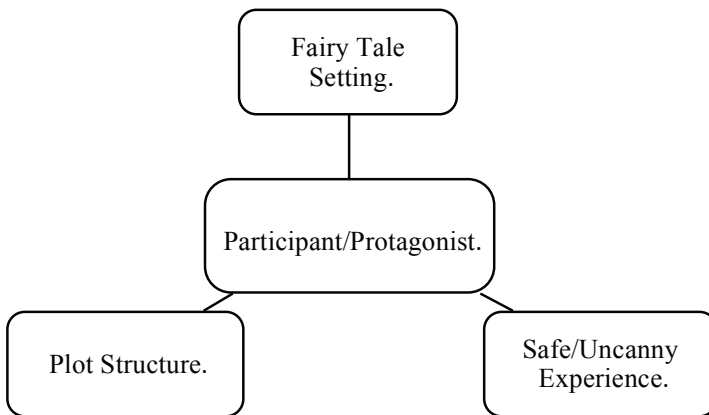
Figure 2: Key determinants of the protagonist's fairy tale experience

The protagonist's role in the narrative immediately immerses them within the fairy tale setting, allowing for a direct and impactful experience of the environment. Consequently, the narrative feature of metalepsis is prominently displayed in the analyzed sample. Additionally, the ability of the protagonist to engage in various interactions elevates the narrative to the point of storyliving. The initiation, progression, and all events encountered during this progression are significant at each stage due to the participant's role as the protagonist.

The fairy tale commences with the participant's initial solitude within the setting, a crucial factor in both acquainting with the environment and sustaining presence within it. Subsequently, the introduction of a fantastical creature into the scene, accompanied by unseen figures and mysterious sounds, weaves a new narrative adventure. This beginning, soon enriched by interactive elements, adds layers to the storytelling format of the fairy tale. The participant becomes the individual navigating through these layers, shaping their journey with musical interactions. However, as depicted in Figure 2, it's crucial to evaluate the safety or uncanny of the experience. This is because the main point to remember is the participant's central role and designation as the protagonist within the fairy tale.

It is observed that the story begins with a sense of uncanniness. This initial feeling arises because the participant is surrounded by human voices that they can hear but cannot see. The presence of a gigantic animal entering the scene further heightens this atmosphere. Moreover, the fact that this intruder is staring at the protagonist (the participant) continuously amplifies the sense of unease. The scenario reaches its peak when the fantastic creature opens its mouth and the protagonist touches its teeth. As a result, sounds and melodies are introduced into the fairy tale forest, enhancing the immersive experience. This contact between the participant and the fantastical being marks the transition from uncanniness to a sense of safety. However, the potential danger still lingers, preventing the sense of insecurity from fully dissipating.

As events unfold, the water level in the environment begins to rise, gradually submerging the protagonist. These moments culminate with the intervention of the fantastical creature, leading to the establishment of a friendship between the real and virtual personas. At this juncture, an important point deserves emphasis: the narrative's reliance on a fairy tale framework and the inherent sense of security intrinsic to such tales. Despite the immersive nature of the narrative and its virtual medium, the fact that it is structured akin to a fairy tale provides a reassuring foundation for the plot. This is because the experienced locale resides within the uncanny realm of the fantastical yet within the safe confines of the fairy tale domain.

Initial Presence	Progression of the Story	Progression of the Story	Progression of the Story
-The Protagonist's Solitude -Uncanny Experience	- The Coexistence of Virtual Fantasy Character and Real Person (Character) - Uncanny Experience	- The virtual character's reassuring attitude - Interaction - Safe Experience	- The onset of a new danger -Uncanny Experience - The virtual character's reassuring attitude - Safe Experience

Table 3: Uncanny and safe experience phases

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The fluctuating level of trust experienced by the protagonist as influenced by the plot structure of the fairy tale plays a decisive role in both the narrative form of metalepsis and the immersive storyliving experience. Upon analysis of the sampled data, it is evident that this structure is clearly established. Through virtual reality technologies, the fairy tale, which already possesses a layered narrative, reinforces the metalepsis structure through the participant identified as the protagonist for the same reason. Consequently, this structure naturally gives rise to both emergent narrative and storyliving effects.

3.2.1. Hyper-identification[3]

Establishing a sense of closeness or shared emotional response with any character in a novel or film is a common phenomenon. This connection is explained through the concept of identification. The crucial questions to answer are how a person is exactly drawn in and what types of bonds they form. Identification is often equated with empathy or feeling together. However, empathy is just one of the ways readers and viewers identify with characters (Felski, 2019: 77). Consciously or unconsciously, a person recognizes themselves in another individual. In doing so, they become involved with that individual and indirectly participate in their activities, emotions, and thoughts. This process provides the individual with greater motivation for their own activities, emotions, and thoughts. When defined in this manner, identification can also occur with an environment, a situation, or a relationship (Feilitzen & Linné, 1975: 52).

Identification is one of the key concepts that must be emphasized in a fairy tale. As a fundamental issue in any narrative containing a story, identification is crucial for experiencing and embracing the narrative. In a narrative, the further the characters in the story are from the audience-reader, the greater the level of identification. In a narrative, the further the characters in the story are from the observer-reader, the greater the level of identification. This distance does not imply an alienating effect; rather, it pertains to the comfort provided to the audience by allowing them to engage with the story from a safe vantage point. However, when the story's characters establish direct contact with the audience, this sense of identification can be diminished.

On the other hand, virtual technologies are changing the concept of identification, much like they are altering many other elements of narratives. The virtual world includes the person within its narrative, thus reshaping many conventional meanings. Eliminating the distance between the person and the narrative creates a new experiential space, where this experience determines the participant's role. How the participant experiences the virtual narrative—such as the features they engage with, the relationship they form with characters, and their level of interaction—are key aspects of virtual narratives. Therefore, it is essential to focus on the participant and explore this in more detail. Immersion, as Biocca points out, refers to the degree to which a virtual environment engages the user's senses with virtual stimuli. The more the system captures the senses and blocks out stimuli from the physical world, the more immersive it is considered to be (Biocca, 1992: 25). The sense of belonging felt by participants immersed in the virtual world is directly related to the level of immersion of the current narrative. Thus, the sense of presence indicates situations where individuals suspend their physical reality and become captivated by the hyper-reality of the virtual world. As Slater also discusses, the entire essence of presence is the illusion of being there, even

though one is aware of not being physically present (Slater, 2018: 432). Participants cease to perceive themselves as interacting with a computer and begin to engage directly with the three-dimensional environment (Coelho et al., 2006: 27).

The transformation of the participant into a fairy tale character and experiencing events directly as the protagonist also alters the condition of identification within the narrative. The distance between the person and the narrative, along with the resulting identification, which is present in traditional narratives, is shaken from the outset in virtual narratives where the individual becomes involved in the story. In these environments, even when the individual is positioned as an observer with no interaction, they still experience a sense of presence. It is precisely at this point that the situation shifts identification from mere identification to hyper-identification, and sometimes even self-identification. In this fairy tale, the establishment of identification occurs through the participant being positioned at the center of the narrative. When the fairy fairy tale character directly engages with the participant, it not only disrupts the traditional narrative's sense of identification but also initiates a transformative process in virtual narratives. As the participant assumes the protagonist's role and experiences the unfolding events firsthand, the fractured perception of identification, triggered by the fairy tale character's gaze, transcends to a higher level of immersion and engagement.In such a way that making eye contact with other characters in the fairy tale enhances the experiential impact of the virtual narrative, thus elevating identification to a hyper level. Consequently, every aspect of the narrative, from the plot to the setting, from the characters to the interactions established with them, is constructed within the hyper-reality of the virtual realm. Therefore, the reasons for identification in traditional narratives manifest in different forms in virtual narratives. For instance, the participant's encounter with a fantastical creature shortly after entering the fairy tale realm is just one of the effects of hyper-identification created by hyper-reality. While this initial moment may evoke feelings of uncanny and discomfort, it soon gives way to a sense of existence and presence as a fairy tale character. The tension initiated by the opening of the jaws of this giant fantastical creature quickly transforms into an interaction with the participant. Thus, the individual experiencing the narrative finds themselves at the beginning of a journey that will gradually increase in impact, within the safety of a hyper-real environment, evidenced by their active presence in the space. The narrative here conveys the participant impression that the story will unfold around them.
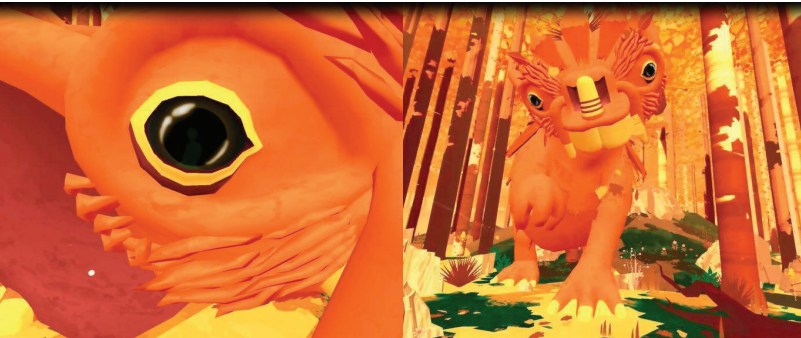
Picture 1-2: The direct gaze of the fantastical character towards the protagonist participant[4]

The hyper-identification established from the outset of the fairy tale, coupled with the participant's immersion in a perilous situation (the rising waters) followed by their rescue by the fantastical character, leads to a complete transformation of the narrative into a metaleptic form. Therefore, the sense of presence facilitated by virtual reality technologies brings about significant changes in the narrative, resulting in a metaleptic narrative form. The effect of hyper-identification is one of these changes. The emergence of hyper-identification is related to the fairy tale's structure of 360-degree virtual reality narrative and the metaleptic composition of the plot. Therefore, virtual reality technologies, emergent narrative, metalepsis, and storyliving elements are tightly intertwined. This is because the events in the fairy tale eventually allow the participant to interact with the fantastical creature, touch the entities around them, and even create melodies. The relationship between the participant and the story, which begins from the outset, is further strengthened as a result of these effects.

Metaleptic Narrative and Storyliving Stages
Immersion in Virtual Narratives
The Sense of Presence
Embodiment
Participant's Protagonist Position
Fairy Tale Characters Making Eye Contact with the Virtual Character
Hyper-Identification
Interaction and Motion Illusion
Embodiment
Self-Identification

Table 4. The identification connection established by the metaleptic structure of the fairy tale with storyliving

The protagonist (participant) assumes the role of an individual capable of interacting with other entities within the fairy tale setting, amidst the perception (and illusion) of movement. These characteristics exhibited by the participant not only give rise to the hyper-identification effect but also foster self-identification as the story unfolds around them. This is because the virtual environment identifies the person experiencing it as a character belonging to that environment. In other words, the real person witnesses the embodiment of their virtual entity. Thus, hyper-identification leads to self-identification. The narrative's designation of the participant as the protagonist, its progression centered around them, and the virtual embodiment of the real person are among the significant factors contributing to self-identification. All these features, which give rise to the experience, stem from the metaleptic structure of the narrative and endow the participant with a storyliving effect.

3.3. Auditory environment

Virtual reality (VR) is typically a technology that provides interaction and immerses the user's senses. This significantly distinguishes it from other media such as television or books (Schuemie et al., 2001: 184). The impact of VR technology emphasizes the manner in which individuals engage with the content produced through this technology. In this regard, one of the prominent features of VR narratives is undoubtedly the use of sound and its effects. This is because in a 360-degree story, issues such as where the participant is looking and how the narrative progresses are, in some cases, resolved in conjunction with sound.

The debate revolves around storytellers refraining from artificially forcing viewers to look in a certain direction, but instead, guiding them throughout the narrative by integrating visual and auditory cues seamlessly into the story (Masia et al., 2021: 66). Because in situations where the source is unspecified, individuals tend to seek out any diegetic sound, whether expected or unexpected. Furthermore, in situations where empathy and identification are active, observing where others are looking becomes a natural inclination. All of these are effectively forms of passive cues (Mateer, 2017: 21). Similarly, Rothe & Hußmann found in their article titled "Guiding the viewer in cinematic virtual reality by diegetic cues"that objects associated with sound attracted more attention than those without sound, and that sound could guide the viewer's gaze direction even if it were not spatial or coming from another direction (Rothe & Hußmann, 2018: 114). One of the most significant factors enhancing the metaleptic structure of the analyzed fairy tale is the use of sound. In addition to diegetic and extra-diegetic sound usage, the prominent sound setup in this virtual reality narrative is the meta-diegetic sound. The most crucial distinction created by the meta-diegetic sound design in this narrative is its relation to the participan's immersion within the fairy tale.

The fairy tale begins with ambient sounds. These ambient sounds quickly incorporate an interactive feature, allowing the participant to briefly interact with the surrounding birds and produce note sounds. Thus, diegetic sound coexists with meta-diegetic sound within the fairy tale environment. Following the brief interaction, events in the setting gradually unfold with the use of extra-diegetic sound. The presence of both music and the narrator results in the dominance of extra-diegetic sound in the fairy tale.

Diegetic sound: Spatial sounds.	→	Meta-diegetic sound: Interaction.	→	Extra-diegetic sound: Music and Narrator.
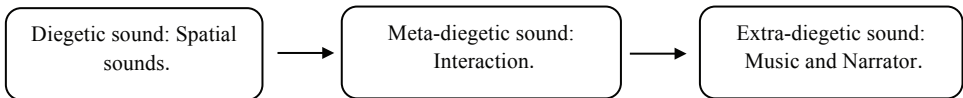
Figure 3: The beginning of the fairy tale and stages of sound utilization

The inclusion of the narrator temporarily pauses the interactive presence of the participant, allowing the protagonist, the audience, to focus on the fairy tale's story. After a while, ambient sounds are reintroduced as diegetic sound elements. With the entrance of the fantastical creature that introduces the first tension in the story, extra-

diegetic tension music is added, and the narrator continues to speak alongside this music. Simultaneously, the soundscape is filled with the sounds of people running around in the environment (diegetic sounds). The presence of the voice-over (the narrator) conveys events in an extra-diegetic manner but also refers to the participant's presence as the protagonist.

The use of diegetic and extra-diegetic sounds intensifies both before and after the fantastical creature's entrance into the fairy tale's setting, running parallel to each other. During this period, the protagonist remains silent and unengaged, as interaction within this fairy tale is conveyed through sound. This continues until the fantastical creature directs its gaze at the protagonist, fully turning towards them and opening its mouth. At this pivotal moment, the protagonist begins to introduce melodies as meta-diegetic sound elements, which are then incorporated into the scene.During these moments, the presence of music and the narrator continues to function as extra-diegetic elements, while the participant's presence facilitates interaction through the use of meta-diegetic sound. The participant presses notes by touching the fantastical creature's teeth, creating a melody. At this point, the crucial aspect of the story is the trust established between the protagonist and the fantastical creature through sound. Therefore, the integration of meta-diegetic sound with the interactive elements of virtual reality technologies in this fairy tale serves as a means of establishing trust.

Sound not only influences the story sensorially but also serves as a determinant of the participant's (protagonist's) experiential presence. This is because the narrative's element of danger creates a sense of trust through the melody produced by sound. Subsequently, events unfolding with spatial transitions continue to incorporate all three forms of sound usage. However, at the end of the fairy tale, the participant is left alone in the space, becoming the creator of a music experience devoid of action. While the narrator's extra-diegetic use of sound persists for a while during these moments, it eventually ceases entirely. The participant, alone in the space, creates ambient sound by touching ice fragments. Extra-diegetic music usage accompanies these moments. Therefore, extra-diegetic sound accompanies the sound generated by the participant. The interactive feature of the 360-degree storytelling is effectively utilized in meta-diegetic sound creation.

Sound is also utilized as a guiding element in these narratives. In 360-degree storytelling, where participants have the ability to look in every direction, the use of sound becomes a fundamental component for following the story. Because in a situation where one can look everywhere in space, the ear develops a response directed solely towards the sound being heard. Thus, in terms of following tension and progressing with the narrative, tracking the source of the sound heard in the space also determines what the eye sees.

Protagonist

↓

Interaction

↓

Meta-Diegetic Sound

↓

Gamification

↓

Experience
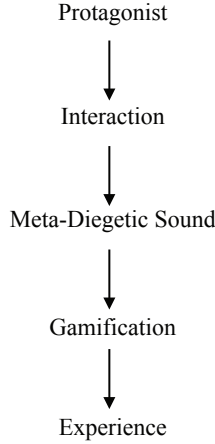
Figure 4: Relationship between interactivity feature and meta-diegetic sound

The source of meta-diegetic sound is directly attributed to the protagonist, making it identifiable. In the fairy analyzed fairy tale, the meta-diegetic element facilitates the experience of trust rather than the experience of unease. These moments, which transform conflict elements into reconciliation, are moments when the fairy tale also becomes a kind of playground. As the protagonist, the participant meets fantastical creatures, engages with them, and becomes part of the story within the setting of the fairy tale. The melodies that emerge when the participant touches objects or other creatures in the environment are not only part of the fairy tale's playful atmosphere but also highlight its transformation into an interactive narrative. This effect strengthens the participant's existence in the fairy tale as the protagonist because the participant has the opportunity to interact in real-time within the virtual tale setting. Thus, interaction creates meta-diegetic sound, and meta-diegetic sound, in turn, enhances the participant's presence, elevating the experience to a stronger point.

Conclusion

This study investigates how VR technology transforms fairy tale narratives, using a narratological analysis of the 360-degree fairy tale narrative, *The Turning Forest*. The analysis examines the narrative structure of the chosen sample through the concepts of metalepsis and meta-diegetic sound, highlighting the potential of this setup to create an immersive storyliving experience.

According to the findings of the analysis, features of VR technologies such as immersion, presence, interaction, and experience are found to be related to the narrative form of metalepsis. The application of these VR features in a narrative leads to a structure significantly different from traditional narrative forms. This structure manifests first in the presence of the participant and subsequently in their experience. The fantastical space in which the fairy tale is conveyed transitions from being an experience observed or read to

becoming an active state where the individual is integrated into the universe. Therefore, the elimination of the distance between the narrative and the participant signifies the dissolution of the boundaries between realities. It is precisely for this reason that the nature of virtual reality narratives is concluded to be directly linked with the narrative form of metalepsis.

Based on the analysis of the fairy tale, it is observed that the narrative form of metalepsis appears in four ways. These include layered structure, the participant as the protagonist, hyper-identification, and auditory environment.

The fundamental elements constituting the layered narrative structure of the fairy tale are identified as "participant," "emergent narrative," and "experience." The involvement of the participant within the narrative has emerged as a crucial factor influencing the spatial dimension, with the layered structure being analyzed within the spatial framework. Accordingly, it is understood that the impact of the fairy tale environment (space) on the layered structure develops in three ways. These are, respectively, effects arising from the sense of "presence in space," "action/interaction," and "movement." Thus, the 360-degree fairy tale space grants the participant an interactive feature, thereby strengthening the emergent narrative effect and enhancing the layered structure. In other words, the participant plays a crucial role as a determinant of the story. The narrative plot in the fairy tale leads to temporal and spatial changes, resulting in a structure requiring movement. It is observed that this movement, reinforced by the subjectivity arising from interaction, contributes to the growth of the layered structure. The participant's ability to interact is structured in two ways concerning the relationship between space and movement. Interaction initially occurs in a static space. This situation then continues with changing spaces due to movement. At the end of the fairy tale, a transition back to staticity and fixed space is made, yet interaction persists in every instance.

Another finding related to the metaleptic setup is the presence of the participant as the protagonist, which prompts an inquiry into the narrative's focal point. In other words, this implies that the narrative plot revolves around the participant, placing them at the center. Therefore, the participant's relationship with the events in the fairy tale becomes crucial. This is because virtual technologies envelop the narrative experiencer with a sense of presence. This feature creates a hyper-effect, with the subject as the protagonist prominently featured in the story. In a fairy tale where giant beings exist and extraordinary situations occur, it is beneficial to elaborate on the virtual space experience of the real person. This is because the unfolding events will present the space as either a safe or uncanny area. In the analyzed fairy tale, it is observed that both effects are present. The uncanny and secure space experience consists of four stages. These stages begin with the "initial presence," where the character is alone and experiences an uncanny encounter. As the story progresses, the participant character experiences the uncanny environment alongside the virtual character. However, this situation changes based on the virtual character's behavior towards the participant character. The friendly demeanor of the fantastical character transforms the uncanny fairy tale environment into a secure atmosphere. With the addition of interaction to this safe environment, the virtual experience evolves into a secure one. However, with

the introduction of new tension in the story, it is observed that the experience of the uncanny or secure space is restructured. This aspect not only forms part of the metaleptic narrative structure but also enhances the participant's experience of being in the space. As events unfold, the virtual character and the participant character once again establish a sense of uncanny, ultimately concluding the story that began with uncanny with a safe experience.

Another metaleptic effect created by the participant as the protagonist is hyper-identification. The immersion and presence features of virtual technologies not only transport the narrative experiencer onto the stage but also alter the form of identification. This change primarily stems from the real-time existence of the participant character, who is later incorporated into the story. Therefore, identification arises not from the experience provided by the narrative observer through the characters, but from the direct presence of the individual in the story. The participation of the participant as the protagonist in the fairy tale implies that they will be directly affected by the unfolding events. Hence, embodiment in the virtual space becomes a significant determinant of hyper-identification. This close relationship with the metaleptic narrative form also enhances the storyliving effect. This is because the participant is the central figure, present, and engaged in interaction. Therefore, each of these effects plays a crucial role in transforming the experience into storyliving. According to the findings of the research, the metaleptic narrative and storyliving stages of *The Turning Forest* fairy tale consist of eight elements. These are as follows: immersion, presence, embodiment, presence as the protagonist, direct gaze at the fairy tale characters, hyper-identification, interaction/motion illusion, re-embodiment, and self-identification. These stages are a result of the identification relationship established between the metaleptic structure of the fairy tale and storyliving.

As another finding of the fairy tale's metaleptic structure, the presence of the auditory environment effect has been observed. Sound, as one of the primary determinants of the metaleptic narrative setup, emerges in the early stages of the analyzed fairy tale in the following manner: diegetic sound originating from spatial sounds; meta-diegetic sound arising from interaction; and extra-diegetic sound originating from music and the narrator. Among these, meta-diegetic sound holds particular significance as it arises through the interactive feature of virtual technologies. This enhances the sense of being in the fairy tale environment and integrates the participant character into the story. It is observed that the interaction granted to the participant occurs solely through sound. This usage, indicating meta-diegetic sound, is also consistent with the metaleptic narrative form. This is because in the virtual space, the participant, as both a real and virtual entity, can create a melody in that environment, thus becoming part of the magical world of the fairy tale. It is beneficial to examine the relationship between interaction and meta-diegetic sound more closely. It is observed that in completing the fairy tale as an experience starting from the participant as the protagonist, there exist stages of "interaction," "meta-diegetic sound," and "gamification."

The analysis reveals that the features presented by virtual reality technologies establish a "natural" relationship with the metaleptic narrative structure. It is concluded that this

relationship creates an experiential space within the fairy tale. The participant's experience of space, central role, and interactive abilities contribute to the narrative's transformation into an emergent narrative form. Additionally, this enables the emergence of the storyliving effect. Thus, it is observed that VR narratives are directly associated with metaleptic structure, emergent narrative, and storyliving elements. At this point, it is worth noting that the narrative of the fairy tale (or fairy tale film) being examined, with its real-time, sound-based structure, aligns well with a metaleptic framework. It is not entirely accurate to claim that all VR narratives demonstrate a metaleptic structure and storyliving experience. However, it is possible to assert that the inherent features of VR narratives hold significant potential for both metaleptic structures and storyliving experiences.

Endnotes

1   *The Turning Forest* narrative, which constitutes the sample of the study, incorporates both gamification and cinematic features within its content. The fusion of interactive features with a fantastical atmosphere transforms this narrative into a gaming world, while its structured plotline also brings it closer to cinema. Therefore, the relevant sample is referred to as a fairy tale narrative, indicating a deliberate choice in this regard.

2   The participant's position in the story will be elaborated on in detail in the next section.

3   The concept of hyper-identification was also used in the book *Sanal Gerçeklik ve 360 Derece Film* (Virtual Reality and 360-Degree Film) by the author of the paper (Molo, 2021: 123).

4   The photographs were obtained by the author of the paper through the recording of the VR experience.

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