

Modernist Narrative in Virtual Reality: Fragmentation, Flow, and Discourse

Novikova V. P.¹, Akhtar Hussain^{2*}

¹Candidate of Philological Sciences, Associate Professor of the Department Foreign Languages of the K.G. Razumovsky Moscow State University of Technologies and Management (FCU).

²Master Student at HSE University, Russia

*Corresponding Author

DOI: <https://doi.org/10.47772/IJRISS.2026.100300167>

Received: 06 March 2026; Accepted: 11 March 2026; Published: 30 March 2026

ABSTRACT

This paper examines how modernist narrative techniques of stream of consciousness and fragmentation are remediated in contemporary virtual reality (VR) storytelling. Drawing on discourse-narratological frameworks, it analyzes how these literary strategies transform from linguistic expression into spatial, sensory, and ergodic discourse structures. The aim is to demonstrate that VR does not constitute a narrative rupture but continues modernist principles through new semiotic channels, positioning users as active interpreters rather than passive recipients. The empirical material consists of three VR films—*Dear Angelica* (2017), *Notes on Blindness* (2016), and *Spheres* (2018)—selected for their emphasis on subjective perception, memory, and non-linearity. These works are compared with modernist novels including Virginia Woolf's *Mrs Dalloway* and *To the Lighthouse*, and James Joyce's *Ulysses*. The methodology employs qualitative discourse analysis combined with Transmedial narratology, focusing on spatial transitions, sensory cues, and user navigation patterns across multiple viewings of each VR piece. Key findings reveal that stream of consciousness manifests as spatial flows driven by sensorial montage rather than syntactic disruption, while fragmentation becomes ergodic reconstruction requiring embodied navigation. In *Dear Angelica*, memory fragments orbit the user spatially; *Notes on Blindness* organizes consciousness through auditory episodes; and *Spheres* externalizes cosmic reflection without temporal markers. These techniques decentralize narrative authority and compels users to assemble coherence through movement and perception, echoing modernist interpretive demands but physicalizing interpretive labor. The study contributes to digital humanities by bridging literary modernism with VR discourse, challenging immersion-centric VR research. It extends Transmedial narratology to account for embodiment and spatiality, offering new analytical tools for immersive media. Findings suggest VR creators draw implicitly from modernist strategies with implications for narrative design that prioritize ambiguity and reconstruction over linear exposition.

Keywords: virtual reality (VR); modernism; stream of consciousness; fragmentation; discourse analysis;

INTRODUCTION

In this contemporary era VR has already become a trending platform for modern narrative, with a typical focus on immersive spatiality, sensory detail, and interactive navigation. Often the VR experience doesn't incorporate a traditional story arc, nor does it feature a telling voice or a narrative act, but is rather aligned with the senses, emotions, and spatial movement. All these characteristics are often seen as new and unique to VR. Contemporary digital storytelling scholarship frequently frames these features as innovative qualities of immersive media (Ensslin, 2014). However, if VR is approached through the lens of narratology, most of these features and techniques appear reminiscent of those developed by literary modernism at the beginning of the last century.

Modernist authors such as James Joyce, Virginia Woolf, and William Faulkner were known for their experimental mode of narrative construction, with a common practice being to foreground characters' inner thoughts and their perspectives of the events unfolding in the narrative. The technique of stream of consciousness

was an extreme novelty of narrative discourse that disrupted the structures of syntax and chronology, and disjointed narrative time and the text in order to imitate the associative and fluid flow of thought (Genette, 1980; Humphrey, 1954). The reader is taken to be no longer the passive recipient of the story but a person who has to recreate meaning among discontinuous bits of information.

This article will demonstrate how some of these characteristic narrative strategies of modernism have been revived and transformed in contemporary VR storytelling discourse. Instead of the linguistic expression of the consciousness of the characters in literary fiction, VR narratives externalize the subjectivity of the spatial flows, modulation of the visual and auditory sense and the change of the surrounding world. Unlike the gaps and blank spaces in the printed text, fragmentation in VR storytelling is ergodic, necessitating the user to engage in reconstructing the narrative through their embodied action (Aarseth, 1997).

In recent years, VR has become a top research topic. Much of this research emphasizes presence, immersion, and experiential engagement (Bowman & McMahan, 2007). The majority of the existing studies focus on the experiential, the psychological or the design aspects of VR, with only a few studies exploring the narrative structures and the organizational principles of immersive discourse. In the absence of a discourse-narratological analysis, the connection of VR narrative to its predecessors in the modernist literary tradition is also under-theorized within digital humanities studies.

This article aims to bridge this knowledge gap by adopting a discourse-narratological approach to study how some modernist strategies are transformed and remediating into VR narrative discourse. Three VR films, namely *Dear Angelica*, *Notes on Blindness* and *Spheres* will be used as case studies. The research question guiding this study is: how are stream of consciousness and fragmentation transformed into spatial flows and reconstructive flows in the narrative discourse of VR?

The article is organized as follows. In section 2, theoretical framework will be outlined, combining theories of modernist narrative, Transmedial narrative, and discourse analysis. In section 3, the qualitative methodology will be introduced. In sections 4.1 and 4.2, a scene-based analysis will be conducted on stream of consciousness and fragmentation in VR. In section 5 and 6, the article will be concluded with a discussion on the research implications for digital humanities.

THEORETICAL FRAMEWORK AND LITERATURE REVIEW

Modernist Narrative Techniques: Stream of Consciousness and Fragmentation

Within the framework of modernist narrative theory, stream of consciousness and fragmentation have traditionally been identified as formal techniques evolved in order to subvert realist narrative. Not content simply to deliver events in the order in which they occurred, or to rely on the mediation of an omniscient narrator, modernist authors attempted to imitate as directly as possible the process of human perception and recall. Humphrey (1954) presents stream of consciousness as anticipating the continuity of mental activity as associative and discontinuous, usually at the syntactic and temporal level. Thought is shown not in a logical progression, but in a stream directed by sensory inputs, memory, and emotion.

As it evokes the fragmented nature of perception, modernist narrative has often been linked with a core formal innovation that is fragmentation. According to Genette (1980), techniques like anachrony, ellipses, and multiple focalization produce a sense of narrative dislocation. These inconsistencies break conventional narrative forms, diminishing the narrator's authority. This forces readers to build coherence retroactively—a modernist hallmark. Meaning emerges through the reader's active interpretation of the text rather than being passively delivered through the text itself. Nonetheless, studies of modernist narrative focus mainly on published literary texts. They fail to fully explore the way related techniques could be applied in immersive online scenarios. This raises a crucial question: Can modernism's dependence on reader interpretation be considered equal to the role of the user in VR?

For instance, in Woolf's *Mrs Dalloway* and *To the Lighthouse*, auditory and visual elements, along with physical movements trigger unmarked flashbacks that blend into narrative without authorial mediation (Woolf, 1925a,

1927). Joyce's *Ulysses* heightens this through the use of discrete, separate episodes, which vary in style from one to the next (Joyce, 1922). Likewise, the distribution of narrative authority through non-hierarchical multiple focalization, and the unreliability of the narrative agents, serves to undermine a sense of coherence and authority (Genette, 1980).

In this way, the development of a theoretical framework of modernist narrative serves to shift its object from the coherent structures of the text to a coherent process of interpretation, and it through this lens that immersive digital narratives are considered.

Transmedial Narratology and Narrative Remediation

Transmedial narratology offers a framework for understanding how narrative structures migrate across media forms. Ryan (2001) argues narrative is a medium-independent semiotic form, translatable into language, image, sound, and space. She expands this argument in her later work on immersion and interactivity in digital environments (Ryan, 2015). This suggests that the use of narrative techniques is not exclusive to the medium of print and that their adaptation is possible in new media (Manovich, 2001).

Similarly, Murray (1997) predicts the emergence of immersive digital environments where users actively shape narrative meaning. Unlike fixed narratives, users navigate spatial stories, assembling their logic into coherent meaning. This model is particularly akin to the concept of modernist narrative, particularly the dispersal of the author and the foregrounding of interpretation. Yet Transmedial narratology often frames this movement tends to think of this movement as a transfer of form. Little focus is on the potential of immersive media to transform the experience of narrative meaning. This raises the question whether VR merely adapts literary techniques or fundamentally transforms narrative experience.

Bolter and Grusin (1999) provide remediation theory for the process of refashioning literary techniques in a new medium in their concept of remediation. They suggest that new media forms do not replace older forms of media but instead refashion them in new terms. Therefore, VR as a narrative medium remediates modernist narrative, shifting stream of consciousness from linguistic to spatial-sensory immersion. Fragmentation transfers from modernist space-time to VR navigation.

This study extends Transmedial narratology in the idea that VR is not used to simulate the conventions of narrative, but rather that it is used to reformulate the discourse of narrative. Immersion is not posited as the opposite of narrativity but instead becomes a method by which its principles can be formulated. Immersion is frequently referred to as technological or psychological, instead of narratological. This analysis demonstrates through a link to the narrative theory that immersion neglects narrative structure rather than disorganizes it.

Discourse Analysis and Narrative Meaning in Digital Media

This discourse-analytic framework analyzes how narrative meanings are reproduced and allocated in the discourse of VR storytelling. This framework reveals that discourse refers to social practice (Fairclough, 2010) and when it comes to the discourse of narrative media, it denotes how the narrative selects what to present to the audience and implies how to understand it (and what is allowed to be understood). Discourse analysis has been employed extensively in texts and media, yet such application remains rare in immersive VR storytelling. VR disrupts the model of the traditional discourse, since the meaning is constructed not only through the use of language, but also through spatial movement and interaction of the user.

In today's media contexts, Georgakopoulou (2014) addresses how contemporary narratives are often constructed through fragmented and "small" stories, suggesting that in order to understand the nature of today's narratives, one should focus on discourse practices in which stories are told, performed, and interpreted, such as in small storytelling, sharing moments, breaks, and interruptions, rather than focusing on a complete and unified story. VR exemplifies this that the audience has the freedom to choose where to pay attention and how to approach narrative events. Therefore, in the discourse of VR storytelling, narrative meanings are allocated in moments and places in which the audience perceives narrative elements (like the fragments of small stories) (Page, 2010), rather than through linear discourse sequence.

In this sense, discourse in VR storytelling is realized multimodally, by verbal narratives and visual/sound design, as well as by spatiality and the user's mobility in the story world (Bednarek, 2018). Thus, in the discourse analysis of VR storytelling, it is necessary to examine how these elements constitute discourse. Specifically, this study asks who controls the narrative, how it is implied that the narrative is coherent, and how the user is responsible for the interpretation of the narrative.

In this way, the present study, combining discourse analysis with the modernist and Transmedial narratological frameworks, will discuss VR narratives as an immersive discourse system, a system in which discourse constitutes not the narrative itself but rather the conditions for interpretation, which operates much like a modernist narrative. Nevertheless, contrary to the literary modernism, in which the process of fragmentation takes place primarily on the textual level, VR introduces fragmentation in space, perception and motion. The difference necessitates a reassessment of the methods for creating narrative coherence.

METHODOLOGY

This article follows a qualitative discourse-narratological approach, so as to comparatively explore the remediation of modernist narratological strategies in VR. This study has a focus on discourse-level analysis and does not engage with user responses or experiences.

Data Corpus

The three VR pieces form the empirical basis for this study. *Dear Angelica* (2017), *Notes on Blindness* (2016), and *Spheres* (2018) were chosen for their focus on subjectivity, memory and non-linearity. None of the three pieces includes an explicitly guiding authorial voice. Meaning is instead created through spatial organization, sensorial cues and viewer movement.

A secondary corpus of modernist writing is theoretical background: *Ulysses* by James Joyce, *Mrs Dalloway* and *To the Lighthouse* by Virginia Woolf. The novels do not constitute a second corpus of empirical content, rather than just theoretical illustrations which give the analytical terms of the VR analysis. They are used to explain the implementation of stream of consciousness and fragmentation in modernist narrative.

Analytical Procedure

Each VR work was experienced multiple times which allows a deeper understanding. Points of analysis include the narrative opening, spatial transitions, symbolic objects, memory-provoking objects, sensorial emphasis, and the viewer positioning. Analytical notes were written for each scene and transition of the narrative pieces, aiming for an analysis of concrete scenes and moments rather than overall impressions.

The analysis of the VR pieces is split into two discourse categories based on modernist narratology: (1) stream of consciousness, to be understood here as spatial and sensorial flow; (2) fragmentation, to be understood here as an ergodic construction, the narrative of which is reconstructed through viewer navigation (Aarseth, 1997).

At various moments throughout the analysis, modernist novels are called upon to theoretically explicate narratological points, such as unmarked flashbacks, in medias res, or the loss of narrative authority. This ensures a methodological consistency, while keeping the analysis focused on VR storytelling.

Analysis

Stream of Consciousness in Virtual Reality: Spatial Flow, Memory, and Subjective Perception

Stream of consciousness was developed in literary modernism as a technique for representing the mental life as directly as possible, rather than in an ordered and rational way. For example, Virginia Woolf's *Mrs. Dalloway* and James Joyce's *Ulysses* are marked by a spatial flow of consciousness, moving between past and present without notice, led by a sound, image, or other sensory impression. Rather than demarcating transitions between moments in time, or between states of mind or perception, both novels force readers to create coherence from details, such as repeated names, or from associations between symbols and states of mind. In this section, I will

argue that VR remediation of stream of consciousness does not require language, but occurs through spatial, sensory, and temporal flows that transform the stream of consciousness into an immersive discourse.

One of the hallmarks of the stream of consciousness in modernist fiction is the lack of obvious starting point. Many modernist novels begin in medias res, without expositional introduction or contextualizing preface. Similarly, many VR experiences place the user directly into an environment without establishing shot or prefatory sequence. For example, (*Dear Angelica*, 2017) begins without any narrative or expositional introduction: the user finds herself in a 3D space surrounded by floating, hand-drawn sketches, without establishing scene, chronological context, or any narrator to contextualize the scene for the user. Like the narrative strategies of beginning in medias res used by Woolf and Joyce, the effect is to place the user inside of a memory, rather than a narrated sequence of events.

As the experience progresses, *Dear Angelica* develops a narrative consciousness through spatial montage. The user encounters sketch of hospital rooms, childhood landscapes, and scenes from cinema, floating in a 3D field around her head. Sometimes these images overlap or dissolve into one another; often they are arranged without attention to the linear chronology of the narrative. Instead, images emerge in relation to the emotional intensity of the narrative, signaled to the user through voiceover and music. For example, a sketch of a hospital bed dissolves into a scene of childhood, without any notice of temporal transition, in a kind of spatial flashback. This transition is reminiscent of Woolf's spatial strategy of moving back in time in response to a present stimulus, as when Clarissa Dalloway, shopping in the market, sees a charming girl arranging the flowers and is suddenly transported back into her own adolescence. In both examples, notice of the shift in time and space is omitted in favor of an immediate flow between spaces.

Symbolic details help to maintain this flow of images. Throughout *Dear Angelica*, symbolic details like sketch lines, light strokes, dissolving outlines of objects function as a sign of the instability of memory. More often, objects are not solid or even defined, but rather are impressions, less tangible than objects themselves. Just as the prose of modernism moves and remakes itself into new and different constructions, like the syntax of the human mind, so too do the images in the text, less concerned with objectivity than object. Just as the sentences often refrain from explaining themselves to the reader, instead offering words and ideas up for repetition and interpretation, so too do the images offer their emotional meanings, again and again. Meaning is not fixed in the details, but instead called up in suggestion, through repetitions and returns of symbolic details, and through the intensity of the emotional context. In these ways, the user is positioned as the interpreter of the flow of images, rather than the receiver of a fixed narrative content.

Another remediation of stream of consciousness occurs in (*Notes on Blindness*, 2016). The audio diaries of John Hull provide the framework for the experience, but the thoughts on his blindness are not organized chronologically. The VR space begins in total blackness except for faint shadowy outlines, which, like the voiceover, occasionally generate temporary visualizations of the sounds he hears. Once more, this throws the viewer into the midst of a situation without grounding their position. They are not given a clear introduction to John Hull or when his experiences take place, and the only way to perceive what is happening is through listening. There is no establishing shot or sequence to explain who John Hull is, or when in his life he is speaking; instead, the user is left to organize the flow of sound in the space.

In *Notes on Blindness*, the spatial flow is organized by sound rather than image. John Hull's narrative moves back and forth between his present circumstances and past reflections without notice; the effect is to produce a flow of sensory and narrative information that is continuous with modernist techniques of stream of consciousness. To give one example, the sound of the rain makes one reflect on memory and loss; the transition works as a flashback, sensory but with no sign of the transition in space or time. The user needs to determine the change between the sound and narrative tone and the spatial alignment of the user in the environment. The effect reminds of the technique used by Joyce in folding memories and reflections into the current perception, excluding any time and space transition to create the sequence of sensorial and narrative information.

The visual minimalism of *Notes on Blindness* also creates some sort of perspective illusion. The user starts the experience with the assumption that as one goes through with it, their power to observe will slowly become clear, and enhance, and that in time the surroundings will provide her with an orderly visual representation.

However, as the experience continues, the ambiance continuously sabotages such expectation by refusing to allow the user to arrange the environment into a field of coherent vision. The impact of such subversion is to suggest the subjectivity and relative importance of perception, and to remind the user of the bias and incompatibility of viewpoint.

As in modernist literature, perspective is not false because it is intentionally deceptive, but because it is by necessity partial and incomplete. In this way, the user's perception is rendered as a process rather than a fixed viewpoint.

In (Spheres, 2018), stream of consciousness is remediated to a cosmic scale. The tour is a gradual sequence of dips in super-astronomical worlds, and is presented not in a descriptive, but in a reflective commentary. The user is floating in space, but it moves slowly and is accompanied by ambient music and the voiceover periodically. There is no indication of temporal development, and no effort to produce a feeling of narrative development, or of cause and effect between events. Rather, the user perceives the story as some form of cosmic stream of consciousness, where the reflections, perception, and abstract knowledge are melded together.

Symbolic details, like in the other experiences, aid in the development of the flow of images in the experience. Stars, empty spaces, gravitations waves are metaphors to such concepts as thought, continuity, and smallness. There is no exposition of these symbols through the story, but rather through repetition and space association. The plan reminds of the modernist repetitive use of symbolic items, such as in Woolf, the lighthouse, or in Joyce, the urban details, which obtain their significance not through explanation but through repetition.

In all the three experiences, the stream of consciousness is remediated as an immersive stream that decentralizes the narrative power. No one to tell the story is a guide, no one to structure the events into a sensible sequence, the process of images and sound arrangement is structured by the direct experience of the user. As in modernist stream of consciousness, the user must assemble the coherence of the flow of images for itself, without the guiding hand of a narrator to explicate their relation and meaning.

The remediation also transforms the relation between reader and writer relationship into user-system relationship. Just as the modernist writer withdraw the control of guiding the reader, in order to transform it into the subject of an interpretive process, the VR narrative withdraw its own guidance of the user in order to produce a similar transformation.

Meaning is not forced on the outside, rather it is created during the interaction with the system. Through such an approach, stream of consciousness continues into VR, not as a style, but as a discourse logic, which structures the narrative in terms of the immediate stream of the subject experience.

Fragmentation and Ergodic Reconstruction of VR Narrative Discourse.

To begin with, I will refer to the way VR alleviates one of the basic modernist devices: fragmentation. In this part, I shall show that in VR, this methodology is recreated into ergodic reconstruction, the discourse framework based on spatial navigation and bodily decision. Fragmentation Modernist texts tend to leave out a beginning and an ending. To illustrate, *To the Lighthouse* by Woolf and *Ulysses* by Joyce do not traditionally start a plot, instead, they both start in medias res. In other words, both Woolf and Joyce place the reader right at the middle of an action that is already taking place. Likewise, in VR, the user is put in medias res: every VR experience starts by the user being immersed into a fractured story, usually with no introduction or orientation.

The narrative frame in *Dear Angelica* is created by a set of loosely related memory fragments (drawing, vocal affect, and music triggers), which are provoked as they are evoked and unveiled. In *Dear Angelica*, there is no frame to guide the user through the fragments; instead, the fragments appear around the user, and their triggers depend on where the user is looking and where she is moving. There is no prescribed narrative order that proceeds in a linear fashion; rather, the order of the fragments is determined by where the user chooses to look and whether she chooses to move. The narrative order, then, is not fixed; rather, it is constructed according to where the user focuses its attention. In many ways, this technique resembles modernist fragmentation. For

instance, the narrative units of Woolf's *To the Lighthouse* appear next to each other without causally determining each other. However, in VR, this technique is amplified.

In *Dear Angelica*, memory fragments appear not next to each other (as in the modernist novel) but around the user in a three-dimensional environment. The act of turning pages is replaced with bodily movement; as a result, reconstructing the narrative requires non-trivial effort. Furthermore, the visual content of *Dear Angelica* often remains incomplete: objects do not often appear whole but are instead represented by partial drawings that fleetingly appear and then dissolve into splashes of color. For example, a childhood bedroom will fleetingly appear as a sketch before dissolving into colorful splashes. These incomplete objects operate as a form of ellipsis, similar to that found in modernist novels. That is, narrative meaning is constructed not around the whole objects that appear but around what can be inferred in their absence.

In *Notes on Blindness*, fragmentation is achieved not through spatial dispersal but through episodic perception. Each trigger in *Notes on Blindness* is an auditory fragment (a soundscape) that plays John Hull's reflections from his diaries. Each auditory fragment represents a self-enclosed perceptual moment (for example, the sound of footsteps or the sound of rain); as such, each is relatively autonomous from the moment that precedes it. There is no explicitly narrative relationship between one moment and the next; rather, the moments are thematically clustered and sensorially arranged.

In *Notes on Blindness*, ergodic reconstruction occurs as the user navigates the audio environment. The user must turn to orient herself in a mainly sound-based environment in which visual elements, if present, are both weak and unstable. As such, coherence is reconstructed according to the relationship between the different auditory moments in time and space. In other words, just as the reader of a modernist novel must reconstruct meaning by connecting the interior moments across an ellipsis, the user of *Notes on Blindness* must reconstruct meaning by connecting the auditory moments across both time and space.

This thematic clustering of moments also introduces a form of temporal fragmentation. The moments represent either a current perception or a recollection of a past event, but there is no way to know when in the past or present each moment occurs. Hull's memories are embedded into his current perceptions, and the precise boundaries of past and present are difficult to discern. Like in the modernist novel, temporality is reconstructed according to an associative logic rather than being prescribed by the narrative (Wildermuth, 2021). The user, like the reader of the modernist novel, must infer the temporal relationship between moments according to their repetition and thematic resonance.

In *Spheres*, fragmentation occurs through conceptual and perspectival shifts. Each scene represents a massive cosmic environment, a scientific explanation, or a philosophical musing, and the conceptual and perspectival shift between each scene is not explicitly marked. The scenes do not build on one another but are instead clustered into an experiential whole; the user floats between one moment and the next, guided by movement and sound rather than narrative logic. This form of fragmentation creates a cosmic ergodicity, in which meaning is reconstructed according to experiential accumulation rather than to sequential logic. The scientific concepts are not explained in a step-by-step fashion but are instead embedded into an experiential logic; the user reconstructs their meaning according to their relationship with an embodied environment. This technique resembles that found in the modernist novel, in which concepts are often embedded into an experiential logic, and the reader must reconstruct meaning according to an associative logic.

Fragmentation is not merely a stylistic device in *Dear Angelica*, *Notes on Blindness* and *Spheres*, it forms narrative authority works. None of these experiences rely on a definite narrating voice that explains something or tells the user what it is all about, rather, meaning is created over time as the user engages with the narrative fragments that are scattered. The user is then responsible to engage in an active process of linking images, sounds and moments in order to create a coherent meaning. This method is similar to the strategy found in modernist novels. Modernist authors tend to avoid the outright exposition and do not want to instruct the readers authoritatively. Instead, they create blank spaces, ellipses, and incomplete visions so that the reader has to fill in the story. The authorities in both instances become decentralized and are reposed to the participant.

The two media however have a significant difference. The activity of the reader is rather interpretive in the modernist novel. The reader relates the moments between narrative discontinuity, thus rebuilding meaning through thinking and association. The user also has to interpret fragments in virtual reality, though this work cannot be done solely through his head. It is physical and spatial. The user rotates, travels in a three-dimensional space and travels in space to connect the narrative elements. Meaning is generated not merely as an interpretation but it is embodied.

The fragments of each VR work are distributed differently. In *Dear Angelica*, the narrative components are scattered over space and the user has to look into the space and put the story together. The fragments presented in *Notes on Blindness* form a line of time, asking the user to compile recollections of the world and sensory sensations. Fragmentation in *Spheres* has a thematic role in that they need to be conceptually related to ideas and experiences concerning sound, space and the cosmos. However, regardless of the differences, the three works are based on the active efforts of the user to rebuild the meaning.

Virtual reality, in this way, continues a fundamental principle of modernist narrative, i.e. meaning is not given wholesome in an authorial voice, but is created in the interstices between fragments. In VR, however, those gaps are not textual and conceptual only. They are spatial and experience. The logic of fragmentation is still present but instead of being a logic of fragmentation, it is made into a logic of movement in which meaning is found in embodied navigation.

DISCUSSION

This chapter has shown that contemporary VR narratives do not only borrow individual stylistic elements from the modernist novel, but rather transmedialize the semiotics of modernist narrative discourse to VR in a systematic way. Stream of consciousness and fragmentation, invented to undermine traditional ideas about narrative and discourse, become spatial flow and ergodic reconstruction in VR. This demonstrates that, rather than a paradigm shift, we are looking at the continuous use of new semiotic resources for a narrative tradition (Bolter, 2014).

As a modernist narrative discourse, stream of consciousness and fragmentation undermine the users' expectations of a guiding narrative. Like in the modernist novel, no exposition is given, most stories begin in *medias res*, and the few instances of explanation in VR stories are heavily supported by sensory indicators. In modernist fiction, this leads to a consciousness that is linked to association, while the authorial power and reliability of the narrator is undercut to privilege the experiencing self. In a similar way, in VR, the authors of the immersive narratives hold back from guiding the users, and instead, immerse them in an experiencing consciousness. The lack of narrative guidance, the *in medias res* beginning and the scarcity of explanation position the users in a role similar to the readers of the modernist novel.

At the level of discourse, VR stories externalize this consciousness. In modernist fiction, this externalization was achieved through linguistic devices such as fragmentation, free indirect discourse or shifts in tense that are not indicated. VR stories achieve this effect through spatiality, sound and movement. The stream of consciousness in the VR stories, rather than being rendered in language, becomes a spatial world that can be navigated through. The consequences for a narratological analysis of these stories are immense: subjectivity is no longer represented, but enacted. The users do not read a consciousness, they embody it. This corresponds to contemporary models of interactive digital narrative in which meaning emerges through user-system interaction (Koenitz, 2023).

Another device that highlights this relationship between the modernist novel and contemporary VR narratives is fragmentation. In the modernist novel, the lack of narrative guidance, the fragmentation of the text, and the need for the reader to reconstruct the narrative after reading it, produce the same effect as VR stories. In VR stories, however, this effect is further emphasized by the use of an ergodic structure. Parts of the narrative are distributed over space and time and the users need to explore the world and reconstruct the narrative. This reconstructive reading is taken to a physical level. In the act of reconstructive reading, the readers are forced to actively interpret the narrative. The same happens in VR. However, in addition to a hermeneutic activity, reconstructive reading

in VR is an embodied activity. This reconstructive reading is not a side-effect of working with the medium, but a discourse strategy used to engage with narrative. Interactive digital narratives can thus be conceptualized as expressive systems rather than closed textual forms (Bellini, 2022).

These observations make a significant contribution to the field of Transmedial narratology. The observations have shown that techniques traditionally associated with the modernist novel can also be observed in a contemporary VR context. This supports Ryan's position that narrative is a cognitive template that can be actualized in different media. At the same time, however, VR complicates narratological concepts that have traditionally been formulated for more traditional narrative media. Traditional narratological categories are complicated by the integration of embodiment, spatiality, or perception into discourse. This means that new tools are needed to describe these new forms of discourse. Moreover, it highlights the importance of expanding the traditional corpus of narratives used for narratological analysis.

In the digital humanities, these observations further establish discourse as an important framework to engage with immersive media. While most of the literature on VR deals with concepts such as immersion, presence, embodiment or emotions, and is, for example, grounded in psychology or game design, it can be fruitful to look at the way the discourse of immersive narratives are constructed. An observation of the way discourse operates in immersive narratives reveals an important continuation between traditional media and new media, and an observation that can inform theoretical frameworks of new media.

A discourse analysis, such as the one performed here, of single examples is important to understand the way the semiotics of a medium are used. These two approaches should be understood as complementary rather than oppositional. Discourse-narratological close reading is a productive approach for analyzing individual VR narratives. Approaching VR narratives as immersive texts allows a close reading of narrative strategies without measuring the effects of these strategies on users. This approach does not replace empirical studies of reception but enables a dialogue between literary studies, media studies, and digital humanities. Moreover, these observations have significant implications for the creation of future VR content. In creating stories that provide interpretative depth and richness, perhaps designers should embrace modernist techniques such as ambiguity, fragmentation, or density rather than relying on linearity, guidance or explicatory techniques.

CONCLUSION

VR storytelling discourse can be understood with the help of narrative techniques. It addressed two strategies of modernism experimented on stream of consciousness and fragmentation, and posed the question how they are reshaped in VR into spatial flows and reconstructive flows.

As the analysis of *Dear Angelica*, *Notes on Blindness*, and *Spheres* indicates, the stream of consciousness is remediated in VR as it transfers to the embodied perception. VR exteriorizes subjectivity in terms of spatial montage, aural prompting, sensorial accent, and unmarked transitions putting the user within a moving sphere of meme and introspection, as opposed to internal thought being represented by syntax and chronology. The lack of excellent exposition and the repeated in medias res entry in all three works is such that the user is forced to construct cohesion through perceptions than they are through a directed plot.

The article also demonstrates that fragmentation becomes not only a textual technique in VR. The interpretation and association are the primary ways in which the readers build up the meaning in the modernist novel. In VR, reconstruction is also physical: the coherence is based on the place of searching, the orientation, the movement of the user throughout the narrative fragments that are located in space and time. The ergodic structure decentralizes the narrative authority and introduces the meaning as user-system engagement.

Altogether, the results indicate that VR is not merely an escape of the previous narrative traditions. It takes the principles of modernism into a different semiotic space in which discourse is multimodal and meaning embodied. VR works can be examined through a discourse-narratological close reading which could thus be used to supplement psychological and design-interest research and aid digital humanities research in articulating how immersive narratives structure interpretation. Future employment might be a combination of this method with reception studies to investigate how various users actually rebuild coherence in immersive storytelling.

REFERENCES

1. Aarseth, E. J. (1997). *Cybertext: Perspectives on ergodic literature*. Johns Hopkins University Press.
2. Bednarek, M. (2018). *Voices and values: Systemic functional arguments for activist profiling (Vol. 4)*. Cambridge University Press. <https://doi.org/10.1017/9781108355289>
3. Bellini, M. (2022). Interactive narratives as expressive systems. *Frontiers in Virtual Reality*, 3, Article 854960. <https://doi.org/10.3389/frvir.2022.854960>
4. Bolter, J. D. (2014). *Digital plenitude*. MIT Press.
5. Bolter, J. D., & Grusin, R. (1999). *Remediation: Understanding new media*. MIT Press. <https://doi.org/10.7551/mitpress/5780.001.0001>
6. Bowman, D. A., & McMahan, R. P. (2007). Virtual reality: How much immersion is enough? *Computer*, 40(7), 36–43. <https://doi.org/10.1109/MC.2007.257>
7. *Dear Angelica*. (2017). [Virtual reality film]. Oculus Story Studio.
8. Ensslin, A. (2014). *Literary gaming*. MIT Press. <https://doi.org/10.7551/mitpress/9780262027398.001.0001>
9. Fairclough, N. (2010). *Critical discourse analysis: The critical study of language (2nd ed.)*. Routledge. <https://doi.org/10.4324/9780203992313>
10. Genette, G. (1980). *Narrative discourse: An essay in method (J. E. Lewin, Trans.)*. Cornell University Press.
11. Georgakopoulou, A. (2014). Small stories transposition and social media: A case study in learning to see micro pop-cultural celebrity online. *Narrative Inquiry*, 24(1), 41–66. <https://doi.org/10.1075/ni.24.1.03geo>
12. Humphrey, R. (1954). *Stream of consciousness in the modern novel*. University of California Press.
13. Joyce, J. (1922). *Ulysses*. Shakespeare and Company.
14. Koenitz, H. (2023). *Interactive digital narrative: A strategic field exploring new media and narrative forms*. Routledge.
15. Manovich, L. (2001). *The language of new media*. MIT Press.
16. Murray, J. H. (1997). *Hamlet on the holodeck: The future of narrative in cyberspace*. MIT Press.
17. *Notes on Blindness: Into Darkness*. (2016). [Virtual reality film]. ARTE France & Ex Nihilo.
18. Page, R. (2010). *New narratives: Stories and storytelling in the digital age*. University of Nebraska Press.
19. Ryan, M.-L. (2001). *Narrative as virtual reality: Immersion and interactivity in literature and electronic media*. Johns Hopkins University Press.
20. Ryan, M.-L. (2015). *Narrative as virtual reality 2: Revisiting immersion and interactivity*. Johns Hopkins University Press. <https://doi.org/10.1353/book.73442>
21. *Spheres: Where the Blindness Finds You*. (2018). [Virtual reality film]. Felix & Paul Studios.
22. Wildermuth, N. E. (2021). *Narrating the umwelt: Towards a posthuman narratology*. De Gruyter. <https://doi.org/10.1515/9783110628640>
23. Woolf, V. (1925). *Mrs Dalloway*. Hogarth Press.
24. Woolf, V. (1927). *To the Lighthouse*. Hogarth Press.