

Thesis Proposal

Research Title

Directing Viewer Attention in 360° Animated Films: Adapting Traditional Cinematic Framing and Continuous-Take Directing Techniques for Immersive Storytelling

Research Question

How can animation-specific directing techniques be adapted to guide viewer attention in 360° narrative films where traditional cinematic framing is absent?

Keywords Searched

360° animation, 360° film, Virtual reality storytelling, Immersive storytelling, Viewer attention, Visual attention, Film directing, Animation directing, Cinematic framing, Long take cinema, One-shot filmmaking, Presence theory, Narrative immersion, Spatial storytelling, VR cinema, Eye-tracking, Animation staging, Gaze guidance, Screen grammar

Introduction

Traditional cinema often makes use of framing, editing, cinematography, and composition as tools to direct viewers' attention and provide them with necessary narrative information. With the help of carefully designed camera movement and fixed borders of frames, directors are able to control viewers' vision and decide what to show at every particular moment. These approaches are inherent to film language and are key components in creating stories.

However, the advent of immersive media like virtual reality and 360° film has disrupted these traditional methods. In a 360° world the viewer is not limited to a fixed frame and can freely explore the space around them. While this freedom increases immersion and the agency of audiences, it also presents significant challenges for filmmakers trying to maintain narrative clarity and to direct audience attention. One-shot filmmaking can be a useful reference point. Long-take and continuous-shot films reduce or eliminate editing, requiring directors to direct attention through movement, blocking, lighting, sound design and staging. But while viewers in one-shot films are still confined to a fixed frame, the lack of editing poses challenges similar to those of immersive storytelling. The study of one-shot filmmaking can provide valuable insight into directing techniques that function without reliance on editorial control.

This issue becomes particularly relevant within animated storytelling. In contrast to traditional live action films, animation provides full control over each visual aspect of any shot. This includes elements such as movement, coloring, lighting, composition, environment. These features indicate that animation can be used as a tool which allows directing viewers attention in an immersive experience.

Although there is growing academic interest in virtual reality and immersive storytelling, there is still little research on how directing techniques specific to animation can be adapted for 360° narrative experiences. Most of the existing research is dedicated to live-action virtual reality content and user interaction, leaving a gap in the research literature on the role of animation in directing the viewer's attention.

The goal of this study is to examine whether directing techniques employed for cinema and one-shot filmmaking can be used in immersive animated environments. By examining theories related to visual attention, directing in films, animation, and immersive storytelling, it will be possible to establish practical ways of attracting viewers' attention that do not include traditional framing.

The research will be limited to animated 360° narrative experiences, and will not include game design, interactive VR applications or technical hardware development.

Literature Review

Traditional filmmaking involves the use of framing and composition techniques to direct viewer attention and convey important information about the story. The term 'framing' refers to the manner in which visual elements are organised within the borders of the film frame in order to direct attention towards specific subjects within the image, either character-based, object-based, or action-based. In essence, framing creates the visual hierarchy of elements in a film shot to, draw the attention of the viewer to certain parts of the frame. Studies have shown that framing plays a crucial role in determining how people view film scenes. For instance, according to (Smith, 2013), when people watch a film, they frequently direct their attention to the same points on the screen. This is a pattern of behavior that he described as 'attentional synchrony.' Smith explains that this happens as a result of visual cues provided by the filmmaker in the form of motion, light contrasts, and characters/objects in the frame.

(Smith and Mital, 2013) further support this argument through eye-tracking research. The experiment tested how visual aspects in film imagery affected gaze behavior, and discovered that people have an inclination to focus on the visually prominent parts like motion and contrast. The results show that there is a visual guidance system, where people's gaze is directed towards important aspects of the story. Similarly, research in film studies has stressed the importance of

classical cinema's use of staging and editing to guarantee that the narrative information always remains visible within the frame.

Similar to live-action film, animation offers a number of common used methods to direct attention. Since animation environments are created from scratch, animators have control over all the visual components involved in the scene creation process including, motion, light, colour, and space. This allows the animator to create scenes in a manner that effectively conveys narrative action and emotional content. (Wells, 1998) argues that animation enables creators to deliberately design every visual element within the frame, allowing greater control over narrative emphasis. Motion is one of the primary tools to direct viewer's attention. Visual perception studies show that viewers attention automatically gets drawn to moving objects in the environment. Therefore, movement can be used to guide the gaze through particular actions within the animated sequence. Staging also plays a crucial role in animation. It refers to the clear visualization of an action or an idea by creating a strong visual hierarchy. Animators stage particular actions and ideas through the careful arrangement of characters and other visual elements within the scene.

Immersive media forms like virtual reality and 360-video have opened up new methods for storytelling that differ from the traditional cinema. Unlike conventional film, immersive media allows viewers to be immersed in a digital world where they are able to roam around the surrounding area at will. Immersive media presents an entirely new way for people to relate to their narratives. The theory of presence has been applied extensively in explaining the success of immersive media. According to (Slater, 2009), presence refers to the psychological experience of “being there” in a virtual environment. According to him, there are two distinct processes by which presence is created: the illusion of being located in the environment (place illusion), and the illusion that things occurring in the environment are genuine events (plausibility illusion). When these conditions are met, users tend to respond to virtual experiences in ways that resemble real world behaviour.

Studies have explored the correlation between immersive media and the degree of engagement and ability to remember things presented by them. (Xiao and Deling, 2019) explored how virtual reality viewing influences the viewer experience and the recollection of narrative elements. It was discovered that immersive environments can lead to better spatial awareness and emotions felt in comparison with traditional film viewing. On the other hand, the freedom provided by immersive media poses additional difficulties when trying to tell stories because of the possibility of distraction. In conventional films, cameras are used to show viewers everything they need to see, which means that directors have the full freedom of controlling the perspective and narrative. Meanwhile, in 360° videos, a person is able to look at whatever they want, which creates the risk of distractions as some crucial plot points might take place outside of the viewer's current field of vision. As a result of this, (Dooley, 2017) believes that it is important to develop a completely new screen grammar, in which filmmakers cannot control viewers' attention.

Instead, a storyteller needs to provide his or her audience with the opportunity to explore the entire environment on their own.

To combat this issue, recent experimental studies have explored directing attention using visual and audio cues in immersive environments. Using virtual reality eye-tracking technology, (Choi and Nam, 2022) conducted a study on elements of visual attention that can attract attention to certain areas in 360° videos. The results revealed that motion, gesture, and character gaze direction, were efficient cues for attracting viewer attention to certain areas. Similarly, (Liu et al. 2022) focused on understanding how signalling cues affect viewer attention in the context of immersive 360° videos. It was found that cues significantly impact gaze behaviour and make viewers focus on elements relevant to the narrative. These studies provide evidence that there is still an opportunity to adapt some classical cues such as motion and visual contrast to immersive storytelling to directing viewers attention.

The most significant difference between traditional cinema and immersive storytelling is the ability of the director to control viewers attention. In traditional cinema, the frame of a movie controls and limits viewer perception. In this way, the director can influence the process using particular techniques and directing cues. Meanwhile, 360° storytelling removes the limitation by taking away the cinematic frame, making the viewer a part of the cinematic space rather than just an observer. As a result, directing techniques must evolve from controlling the frame to carefully guiding attention within a spatial environment.

A notable midpoint between traditional cinema and immersive storytelling can be found in the use of one-shot filmmaking techniques. In films that depend on continuity shots, there is little or no editing and directors must keep the audience engaged using techniques such as motion, acting, sound design and staging. While one-shot films still maintain the cinematic frame, it proves the possibility of effectively drawing viewers attention without using traditional editing techniques.

While in recent years, there has been an increasing amount of academic inquiry into the topic of viewers attention and immersive narratives, much of the literature is concerned with virtual reality technology and live-action 360-degree videos. Researchers have found some visual elements that affect viewers' gaze behavior in immersive spaces, but very little attention has been paid to the potential of animation as a medium to guide viewer attention. Animation holds some benefits in terms of immersive storytelling because all elements of the immersive space can be designed by artists themselves. However, there is still a lack of research into the use of directing methods specific to animation in 360-degree stories. Addressing this gap may contribute to a better understanding of how the principles of animation, staging and motion can be adapted for immersive narrative design.

Research Methods Outline

In this study, qualitative research will be used to explore ways how directing techniques could be used to direct viewer attention within 360° animated stories. Firstly, a review of the current literature concerning the topic would be carried out. A literature review would help identify relevant theoretical knowledge about traditional film directing, animation, visual attention mechanisms, immersive story-telling, virtual reality, and one-shot films. It will be important for identifying traditional means of directing viewers attention and exploring their evolution within immersive storytelling.

A comparative study will then be performed, analyzing differences between directing attention in traditional cinema, one-shot films, and immersive storytelling. An analysis of these three forms of story-telling will create an understanding of how directorial methods evolve when directors lose access to the process of editing techniques. This study would focus on directing methods such as movement of objects and characters, lighting effects, placement of characters in space, gaze direction, sound cues, etc.

The third stage of the research will involve an analysis of specific case studies. Traditional animations, long take cinema and 360° story-telling will be analyzed in order to understand the way in which attention is being directed using visual and spatial design rather than through conventional cinematic editing.

Additionally, this research will include practice-based research through the development of a 360° animation as part of the Final Major Project. Reflection on the entire production process will help in assessing how effectively the directing techniques have been used in keeping the storyline clear in an immersive environment. This would be done through reflective analysis and audience feedback gathered during prototype testing.

Chapter Outline

Chapter 1: Directing Attention in Traditional and Continuous-Take Cinema

Chapter One will study how directors guide audiences attention through techniques such as composition, editing, and long take filmmaking. Specifically, this chapter will analyze the role of framing in classical cinema as well as exploring the use of one-shot films that do not make use of editing techniques to hold viewers interest. In this chapter, the following questions will be considered: how does framing affect our perceptions as viewers? What happens when editing is stripped away from a film; are there still directing methods that can be used in such a case? The discussion will be informed by the work of Tim J. Smith, David Bordwell, André Bazin, and Walter Murch.

Chapter 2: Animation as a Directed Medium

In Chapter Two, attention will be focused on animation-based techniques that serve to direct attention and convey narrative information to the viewer. This chapter will focus on how animation establishes visual hierarchy through careful manipulation of movement, staging, color, lighting, and composition. It would investigate how animation directs and emphasizes the perceptions of the audience by controlling the entire visual field. The discussion will be informed by the theories and practices of Paul Wells and Richard Williams.

Chapter 3: Presence and Immersive Storytelling

Immersion, presence, and audience engagement theories in virtual worlds will be the basis of Chapter Three. Chapter Three will study what makes presence possible in immersive media and the effect of viewer agency on storyteller-audience dynamics. The chapter will investigate how immersive media differs from cinematic viewing and the effect this difference may have on narrative communication. These discussions will be anchored on the work of authors such as Mel Slater and Kevin Dooley among others.

Chapter 4: Directing Attention in 360° Animation

Chapter Four will investigate the techniques that could help direct viewers attention in a 360° animated world. Building on the knowledge gained from the earlier chapters, the techniques will be examined to understand their efficacy when using the directing techniques in immersive narrative. Chapter Four would focus on answering some of the questions raised in regard to how effective some of the traditional directing techniques are in a 360° environment as well as whether new directing techniques have been formed to better suit immersive narrative. The discussion will draw upon research conducted by Choi and Nam, Liu and colleagues, and other researchers working in immersive media and eye-tracking studies.

Chapter 5: Towards a Directing Framework for Immersive Animation

Chapter Five will summarise all of the results presented in previous chapters to provide a working model of how to direct the attention of an audience in a 360° animated narratives. Through research into techniques in cinema, one-shot films, and animation, combined with current knowledge about immersive storytelling, it aims to find solutions that would enable storytellers to guide the attention of viewers in the absence of a frame as well as identify potential areas for further research.

Draft Chapter

Chapter 1: Directing Attention in Traditional and Continuous-Take Cinema

Traditionally, framing and editing have been essential tools used by filmmakers to control what information audiences are shown and how they perceive it. Attention in film, according to (Smith, 2013), can be synchronised via movement, contrast, blocking, staging and editing. Filmmakers establish visual hierarchy, creating cues that direct the audience's gaze and support comprehension.

One-shot filmmaking involves the creation of cinematic narratives with minimal or no editing at all. In order to ensure engagement without resorting to cuts, filmmakers employ a combination of movement, blocking, lighting, and sound to capture the audience's interest. While traditional filmmaking employs editing to shift audience attention to particular scenes, one-shot filmmaking requires that such shifts are made through movement within the frame.

Immersive story telling removes the idea of fixed frame from the equation entirely by using 360° technology to allow audiences to take control of their point of view. As a result, the difference between traditional and one-shot filmmaking is of crucial importance in understanding the nature of immersive animation. Therefore understanding how directors maintain narrative clarity in both traditional and continuous-take cinema therefore provides a valuable framework for investigating attention guidance within immersive animated environments.

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