

# Virtual Reality

MOVING BEYOND A CINEMA  
OF ATTRACTIONS

**After years of conjecture and development, virtual reality filmmaking has at last truly emerged, expanding possibilities for narrative development and the role of the spectator.**

**KATH DOOLEY takes a look at three notable recent Australian virtual reality works, analysing how each of them addresses the medium's potential and challenges.**

**V**irtual reality (VR) is an immersive medium that has been the focus of much experimentation since the 1960s. Defined by Jason Jerald as 'a computer-generated digital environment that can be experienced and interacted with as if that environment were real', VR aims to transport the viewer to a place that is psychologically different from their physical location, be it an imaginary or a seemingly 'real' environment.<sup>1</sup>

While the 1990s saw VR technology such as head-mounted displays (HMDs) develop to a point where their commercial viability seemed possible, it is only in the last two years that this potential has been realised. In 2016, VR became accessible in the mainstream commercial sector with the launch of reasonably priced, mass-market headsets for consumers such as the Samsung Gear VR and, at the lower end of the scale, the Google Cardboard viewer.<sup>2</sup> These HMDs work in conjunction with mobile phone technology, allowing the viewer to be immersed in a synthetic world that may feature live-action and/or computer-generated footage. Also noticeable is the rapid development of 360-degree cameras, which allow filmmakers to capture an omnidirectional view of an environment, rather than the rectangular window on the world that traditional camera technology has been limited to. Both high- and low-end 360-degree cameras are now available for consumer purchase, offering many opportunities for the professional or amateur filmmaker.

Given these advances, the last two years have seen an explosion of VR content produced by new and established filmmakers. While early work often focused on showcasing the novelty of VR technology, one can now witness a move beyond VR being a 'cinema of attractions' to the emergence of significant short narrative work in both documentary and fictional forms.<sup>3</sup> Notably, television networks and film production companies are now commissioning VR spin-offs of TV series and feature films as an added bonus for fans (see, as examples, the VR teasers for Fox TV series *Sleepy Hollow* and the feature-film reboot of the *Power Rangers*



franchise).<sup>4</sup> It's also significant that experienced animation and live-action feature-film directors are making the move to the VR medium – two prominent examples being Eric Darnell, co-director of *Antz* (1998) and *Madagascar* (2005), and Doug Liman, director of *The Bourne Identity* (2002) and *Mr. & Mrs. Smith* (2005). This phenomenon coincides with the emergence of what John Mateer describes as 'Cinematic Virtual Reality', in which the 'media fidelity' of VR 'approaches that found in feature film'.<sup>5</sup> This highly immersive form of VR often limits user interaction to choosing predetermined viewpoints within a 360-degree environment, and may be created by shooting live action on a 360-degree camera or designing computer-generated imagery (CGI). At the other end of the spectrum, one can observe high-quality three-dimensional CGI that takes its interactive cues from videogame design, which allows for more freedom of movement and viewer choice in the virtual environment.



THIS SPREAD, CLOCKWISE FROM ABOVE: Viewers experience *VR Noir: A Day Before the Night*; *Collisions*; *The Next Striker*

This article aims to profile and explore approaches to VR form and structure that are evident in three recently made 360-degree Australian short-form narrative projects: the drama *VR Noir: A Day Before the Night* (Robert Klenner, 2016); the docudrama web series *The Next Striker*; and the documentary *Collisions* (Lynette Wallworth, 2016). Each of these projects is downloadable online and viewable using a variety of HMDs (see links to view the projects at the end of the article).

Narrative VR can be defined as interactive/immersive drama or documentary productions that offer the viewer a clearly defined story with a beginning, middle and end, although not necessarily in that order. An interrogation of the works listed above isolates

locations are included in short narrative works). Unlike the passive viewer of classical narrative media – that is, film or television – the VR viewer is ‘present’ in a more active sense, as either an observer/witness situated within the *mise en scène* of the work or a protagonist who is directly addressed and involved in the unfolding drama. These factors present a number of challenges and opportunities for the writer and director of narrative VR when considering user progression through an immersive and/or interactive story.

In terms of antecedents to interactive VR, one might consider improvised theatre-in-the-round, live role-playing games or live historical re-enactments, in which a dynamic story

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common features of and approaches to VR narratives that may be discussed further with Media students in class. An exploration of the challenges and opportunities associated with writing and directing for this emerging, immersive medium, as evidenced through these case studies, also provides significant grounding for the Media student interested in creating work in this area.

## HOW IS VR PRODUCTION DIFFERENT FROM TRADITIONAL FILMMAKING?

Telling stories with VR involves a user-focused, medium-specific engagement with time and space. Stories often play out in real time and in a specific environment (typically, only one or two

emerges through interaction. Videogames with strong narrative elements are another point of comparison, in terms of the decision points that they present to the viewer. The inclusion of these elements creates tension between interactivity and linear dramatic structure.

Moreover, while traditional visual media content is typically viewed on a rectangular screen, immersive 360-degree projects have no screen edge: the world of the project surrounds the viewer. This change in format creates challenges for the VR filmmaker, as much of our established cinematic language is connected to the notion of a defined frame. Whereas traditional films may include an edited collection of close-ups and mid and long shots, the VR project often features scenes constructed from a single three-dimensional long take, which calls for

a new consideration of screen grammar. As well as factoring in the three-dimensionality of the world that they are creating, the VR filmmaker must also consider the platform on which the project will be viewed, as this will influence the viewer's likely attention span. For example, a user of the low-end Google Cardboard viewer is unlikely to be as immersed in the storyworld as someone strapped into a HTC Vive headset with earbuds and controllers.<sup>6</sup> To further complicate matters, some VR projects are designed to be viewed on multiple platforms, so creators must offer a range of experiences to suit.

## CASE STUDIES

### **VR Noir: A Day Before the Night**

The *VR Noir* project, written by Mike Jones and co-created by Nathan Anderson and Robert Klenner (the latter of whom also served as director), is a collaboration between Sydney-based company Start VR and the Australian Film Television and Radio School (AFTRS). The short narrative revolves around a murder mystery that draws heavily on film noir conventions. Running for approximately twelve minutes, the story follows protagonist Veronica Coltrane (Anita Hegh), a private detective with financial troubles due to an ongoing child-support dispute. Going against her better judgement, she accepts a case to investigate a missing husband; however, by the end of the narrative, it becomes clear that Veronica has been duped, and she unwittingly becomes witness to a murder.

Featuring a 360-degree world that has been constructed using a mix of live-action footage, still images and computer-generated imagery, *VR Noir* can be viewed using a variety of HMDs. The audience's point of view switches from first to third person throughout the project, meaning that one either watches Veronica from a distance or experiences the world directly through her eyes. There is opportunity for the user to make limited 'choices' as the narrative unfolds (for example, they can pass judgement on Veronica's dubious client, using head-tracking technology to click on one of several statements that appear on the screen after the client's first appearance), but the story plays out to the same conclusion regardless.

### **The Next Striker**

*The Next Striker*, directed by Tom Phillips, is a seven-episode web series with real-life elements that allows the viewer to step into the shoes of a fictional new recruit of the Adelaide Strikers cricket team. As such, the viewer is called up to join the team, attends practice, goes on tour with other players and finally plays a competitive game on home ground. Presented entirely from a first-person perspective, with a target audience of young cricket fans, each short episode (running for approximately two minutes) aims to transmit the joys and pressures of professional sporting performance to the audience. Notably, the episodes allow the viewer to feel as though they are interacting with actual team members and Strikers staff.

Strikers fans were able to experience the series' episodes through a number of HMDs that were set up outside Strikers home games and key events in 2017. The web series is also available to view through the Strikers' Facebook page and on the Jumpgate VR website.

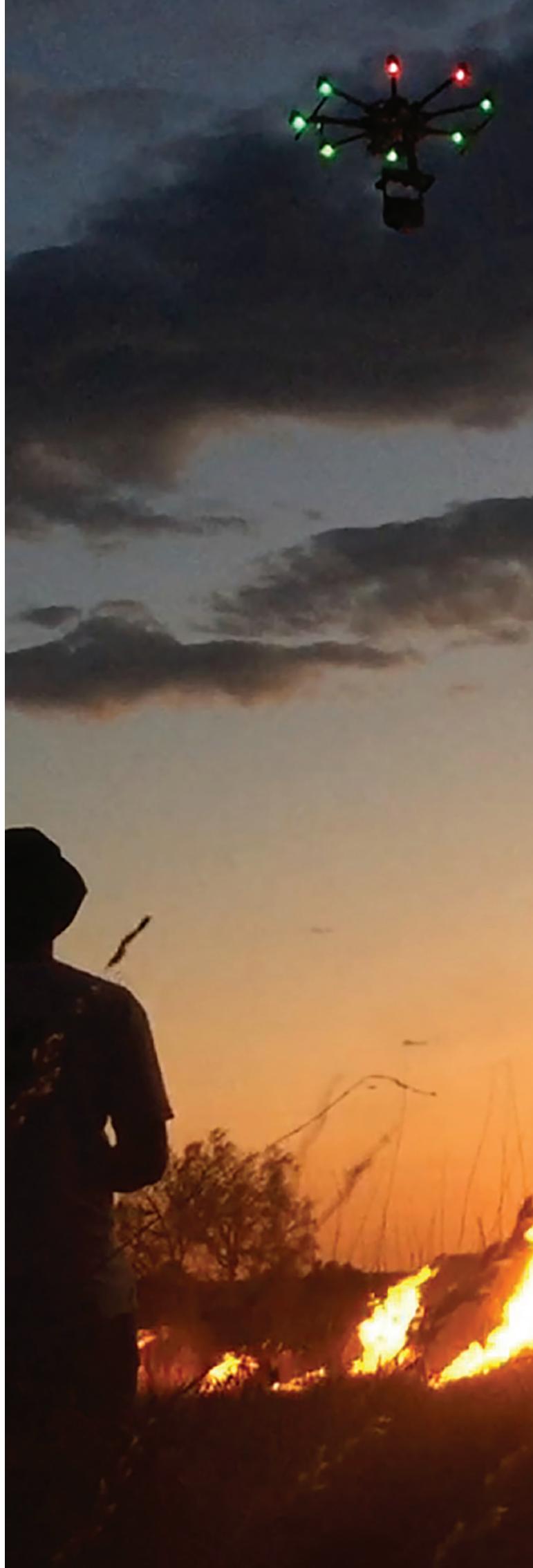


### **Collisions**

*Collisions* is an Emmy-winning eighteen-minute VR documentary project that takes the viewer on 'a journey to the land of Indigenous elder [...] Nyari Nyari Morgan and the Martu tribe in the remote Western Australian desert'.<sup>7</sup> Australian filmmaker and artist Lynette Wallworth uses voiceover to guide the viewer as they are welcomed to country by Morgan and then learn of his experience as an unknowing witness to an atomic bomb test in the 1950s. Morgan reflects on this life-changing event, the impact of this destructive Western technology and the Martu tradition of caring for the land.

*Collisions* was filmed using a 360-degree camera, which allows the viewer to be directly addressed by the project's participants. It also features highly effective animated re-creations of the atomic blast. Produced as part of the Sundance New Frontier program with the assistance of Jaunt VR, this immersive experience allows the viewer to visit Morgan's country and bear witness to his story. Described by Wallworth as 'a gift sent out from a private world',<sup>8</sup> the project can be viewed on multiple HMDs and has been screened at a number of venues around the world.





## COMMON POINTS FOR ANALYSIS

### A single, core experience

Jerald recommends that VR creators focus on providing a ‘core experience’ in a virtual world that is self-explanatory in terms of structure.<sup>9</sup> Given that the viewer may be grappling with the use of unfamiliar VR technology, the need to present a clear, single-focused story experience is especially important for this emerging medium. Viewer comfort also needs to be considered, given the adverse health effects (nausea, eye strain and headache) that can be associated with wearing a HMD.

This kind of core experience is evident in all three of the examples listed above, with each project featuring a small number of story beats and locations. *VR Noir* limits its action to three locations, while both *The Next Striker* and *Collisions* restrict the number of shots that they feature (four to five per webisode in the former, and twenty in the latter), making sure that ideas unfold slowly and clearly. Furthermore, the film noir tropes that are immediately evident in *VR Noir*, such as protagonist voiceover, low-key lighting and the setting of a private investigator’s office, quickly and effectively establish the storyworld of this project. *VR Noir*’s main method of audience interaction – head tracking that involves focusing one’s view on a particular object in order to trigger a response – is also introduced in the project’s opening scene, allowing the user to quickly understand the rules of this virtual world.

### Leaving time for audience acclimation and exploration

In all three of these case studies, one can observe an opening sequence that encourages audience acclimation and exploration. This allows the viewer time to adjust to the virtual world at the beginning of the experience and to explore each project’s setting.

For example, the opening of *Collisions* features an animated shot of a blurry, starry sky, as Wallworth’s voiceover explains the journey that the viewer is about to take to Morgan’s land. This is followed by three shots of the landscape, including an aerial shot of the remote Western Australian township. This allows the viewer a full examination of the surrounding world, with time to turn and explore the 360-degree view of the environment. On a similar note, *The Next Striker* also uses voiceover in the form of cricket commentary to ease the viewer into the world of professional sport, with opening shots allowing the viewer time to explore a cricket practice setting.





THIS PAGE, CLOCKWISE FROM LEFT: On the set of *VR Noir: A Day Before the Night* (two images); a scene from the project

The exploration phase can be observed most acutely when studying the opening office scene of *VR Noir*. In this setting, the user is given several moments to look around Victoria's office. When the viewer's gaze falls upon certain objects, such as newspaper clippings on the wall or a gun placed on a desk, various lines of Veronica's voiceover dialogue are triggered, giving the viewer additional backstory about her situation. After several objects have been explored (in no required order), Veronica's client arrives and the story begins to unfold in earnest.

### Directing attention

Perhaps the most pronounced problem for the creator of a VR narrative is how to attract and direct the viewer's attention. Whereas traditional filmmaking allows the creator to draw attention to a particular action or object by portraying it in close-up and in the centre of the frame, the active VR audience member can ignore filmmaker cues and decide where to focus their attention.

Various narrative VR practitioners have found different ways to tackle this problem when conceptualising their work. For example, Darnell, writer and director of 360-degree animated short *ASTEROIDS!* (2017), studied 'how magicians use misdirection

Morgan's location. In a later scene, the sound of a squeaky gate cues the viewer to turn around so that they are looking in the right direction when a participant who is standing against the gate is introduced.

Likewise, in the first episode of *The Next Striker*, a ringing mobile phone directs the viewer's attention. In a later scene, the viewer is compelled to look in the same direction as the characters on screen. This occurs during a meeting with Strikers staff. Two office managers look to their right as a third character, the Strikers' coach, enters the scene. Sensing the entrance of another figure, the viewer follows their gaze, finding this additional character.

### CONCLUSION

By exploring early approaches to VR narratives with reference to the three case studies mentioned above, this article has sought to highlight a number of issues surrounding the form and structure of this emerging medium that can be discussed further in the classroom. It is important to note that the narrative VR medium is still very much a site of experimentation; as such, screen grammar for interaction and navigation is still being

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to gather techniques to guide the viewer'.<sup>10</sup> Some other means of grabbing the audience's attention might include sudden changes in light, colour, movement, shape or scale, as well as the use of audio cues. The last of these draws upon the viewer's natural impulse to seek out the source of diegetic sounds, which may mean shifting their gaze to the left or right. By considering the use of visual and audio cues to direct attention, the VR writer not only guides the viewer through the story, but also through space.

All three of this article's case studies use audio cues to direct the audience's attention. For example, the sound of a crackling fire in one of *Collisions'* opening shots directs their attention to

developed. The Media teacher and student may wish to reflect further on the role of the viewer in this immersive medium, noting similarities and differences when comparing writing and filming approaches with those of traditional media. Just as the rules of two-dimensional filmmaking were somewhat fluid in the late nineteenth and early twentieth centuries, so too are we at a point now where the possibilities of narrative VR filmmaking are still being discovered.

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THIS PAGE, FROM TOP: Cinematographer Patrick Meegan and director Lynette Wallworth filming *Collisions*; *The Next Striker*



## ACCESSING THE CASE STUDIES

### **VR Noir**

Visit <<https://startvr.co/project/vr-noir/>> for links to download the project from Google Play for Samsung Gear VR and from the Apple App Store for play on HMDs including Google Cardboard. The Start VR website also features a trailer and behind-the-scenes video for the project.

### ***The Next Striker***

Visit <<https://jumpgatevr.com/projects/the-next-striker/>> to view episodes on your computer or via a HMD. You can also watch an episode on the Adelaide Strikers' Facebook page: <<https://www.facebook.com/StrikersBBL/videos/vb.154561324597828/1212684535452163/>>.

### ***Collisions***

Visit <<https://www.jauntvr.com/get-the-app/>> to download the Jaunt VR application from the Apple App Store (iPhone) or Google Play (Android) for playback on a range of HMDs. The application gives the viewer free access to *Collisions*, as well as a range of other VR projects.

### Endnotes

- <sup>1</sup> Jason Jerald, *The VR Book: Human-centered Design for Virtual Reality*, Association for Computing Machinery and Morgan & Claypool, New York, 2015, p. 9.
- <sup>2</sup> The Google Cardboard viewer retails for approximately A\$20 and is literally a cardboard frame that supports the viewing of VR content on a mobile phone.
- <sup>3</sup> The term ‘cinema of attractions’ was coined by Tom Gunning in reference to the early cinema of the 1890s and early 1900s; these early works explored cinema’s potential to show something, their exhibition having the character of a fairground attraction. See Tom Gunning, ‘The Cinema of Attraction: Early Film, Its Spectator and the Avant-garde’, *Wide Angle*, vol. 8, nos 3 & 4, Fall 1986, pp. 63–70.
- <sup>4</sup> For more information on the *Sleepy Hollow* or *Power Rangers* VR teasers, see: ‘*Sleepy Hollow: VR Experience*’, Secret Location, <<https://secretlocation.com/projects/sleepy-hollow-virtual-reality-experience>>; and Matt Dolloff, ‘*Power Rangers* VR Experience Teaser: Become a Ranger’, *Screen Rant*, 6 March 2017, <<http://screenrant.com/power-rangers-movie-vr-experience-app/>>, both accessed 13 September 2017.
- <sup>5</sup> John Mateer, ‘Directing for Cinematic Virtual Reality: How the Traditional Film Director’s Craft Applies to Immersive Environments and Notions of Presence’, *Journal of Media Practice*, vol. 18, no. 1, 2017, pp. 14–25.
- <sup>6</sup> The HTC Vive headset retails for more than A\$1000 and requires a connection to computer hardware.
- <sup>7</sup> ‘*Collisions* (2016)’, ACMI website, <<https://www.acmi.net.au/collection/works/collisions-vr>>, accessed 13 September 2017.
- <sup>8</sup> Lynette Wallworth, quoted in ‘The Filmmaker’, *Collisions* website, <<http://www.collisionsvr.com/about-the-filmmaker>>, accessed 13 September 2017.
- <sup>9</sup> Jerald, op. cit., p. 229.
- <sup>10</sup> Shanee Edwards, ‘Virtual Reality Is Here to Stay and It Needs Screenwriters’, *ScreenwritingU Magazine*, 4 February 2017, <<http://screenwritingumagazine.com/2017/02/04/virtual-reality-stay-needs-screenwriters/>>, accessed 13 September 2017.

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