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IMMERSION AND ABSTRACTION IN VIRTUAL SPORT

Andy Miah

INTRODUCTION

Typically, ideas about the application of virtual realities have omitted to consider their affect upon the way in which spectators or athletes engage with sports. Such applications have had only limited attention in comparison to how simulation might be used by the athlete for training purposes. Alternatively, there has been an interest to reflect how the spectator might find new ways of engaging with a sports broadcast and how this can challenge conventional media systems (Katz, 1995; McDaniel, 1998). What seems absent in these discourses is a recognition of how the human changes in its respective roles as spectator and athlete. At most, this alteration is alluded to in McDaniel (1998), where it is argued that the spectator becomes more passive as technology becomes more interactive. Nevertheless, the emphasis of such descriptions is still upon the convergence of technology (Stoddart, 1997) and the athlete remains neglected. Moreover, the discussion is focused less upon the human-altering aspects of virtual reality (VR), than on the importance of interactivity.

Yet, the notion of convergence is a relatively limiting term if we hope to understand how VR changes the way in which humans engage with sport. Whilst it might reveal the way in which media technologies are combining into a single unit, it says very little about how the spectator or the athlete changes as a consequence. It is suggested here that a more suitable metaphor must be utilized to reflect adequately how such interactions are changing for both the spectator and

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1 the athlete. Specifically, it is argued that the spectator's experience tends increas-
2 ingly towards being more integrated with the sporting event. It considers how
3 VR can allow the spectator to be, virtually, placed within the activity and
4 become an athlete as well. It is not simply a case of the spectator becoming
5 more interactive. Rather, the spectator becomes located, virtually, in the sporting
6 event through VR. In contrast, the athlete's experience within sport is argued
7 here as tending towards greater abstraction from the sport environment. Through
8 the use of VR and other digitalising technologies, the athlete becomes increas-
9 ingly less present in the sporting environment. Moreover, the athlete's
10 performance is increasingly fragmented to a point of losing sense of the sporting
11 activity as a procedural whole. Indeed, the conventional sporting environment,
12 it is argued, disappears as a result of VR.

13 From each perspective, the implications are uniquely distinct and worthy of
14 articulating alongside each other. It would be possible to dedicate a single article
15 to either of the two perspectives, though I wish here to place the two in contrast
16 to one another. It would also be possible to consider other ways in which digital
17 technology is changing the roles of sports actors. For example, the use of third-
18 eye camera technology to support and perhaps supersede the decisions of a
19 referee greatly alters the way in which the official is perceived as being some-
20 body of superior judgment and insight into the just competition. Where such
21 technology is used, the utility of a referee is marginalized and sports become
22 reduced to something like a Panopticon. With such technology, no longer would
23 the situation arise when one team felt they had lost (indeed, where sport history
24 had been made) because of a bad officiating decision, since the video evidence,
25 with its 360 degree vision, would settle any dispute.

26 The interest in the spectator and athlete in particular is to understand the chang-
27 ing relationship between the *watched* and the *watcher*. As will be argued, these
28 opposing effects have particularly revealing consequences for the study of values
29 in sport. Initially, it can be useful to expand upon what kinds of technology are
30 available to the various kinds of actors involved with sport. On Hemphill's view
31 (1995), VR is no novelty in contemporary society. More familiar and, perhaps,
32 less obvious examples of it include "documents, phonographs, radios and tele-
33 vision" (p.56). These examples might seem counter-intuitive if one perceives VR
34 as solely linked to computing. Yet, Hemphill's thesis asserts that the salient
35 aspect of VR is that it mediates reality and that this can take a number of forms,
36 many of which are unrelated to computing. Thus, his broad categorization seems
37 warranted and serves to normalise the hysteria surrounding computer technol-
38 ogy. However, it can be argued that virtual realities are approaching a change in
39 kind rather than degree, or at least, that the degree of change in virtual reality
40 technology is becoming increasingly profound due to the potential of computer

1 technology. Indeed, VR is interesting since it promises to liberate the home-
2 computer user from the contingent, though dominant restrictions of the monitor
3 and mouse. The application of the technology is, however, the crucial barrier
4 towards such realisation. Its accessibility and affordability are of central impor-
5 tance in this regard.

6 Admittedly, VR technology itself has yet to fulfil the promise of many science-
7 fiction writings. However, this is little reason to doubt its ability to create con-
8 vincing artificial worlds. The imaginative ideas about VR consisting of people
9 wearing simulation suits that allow them to *feel* that they are moving in a tangi-
10 ble world, would be appealing for the opportunity it can provide for escaping
11 from reality into a play-zone that is better than life. However, these ideas imply
12 an altering effect upon human experiences, including sport. Such interests have
13 provoked a significant amount of research interested in virtual communities and
14 the ways in which identities are constructed through computer mediated
15 communications (Cairncross, 1997; Castells, 1997; Jones, 1997; Turkle, 1995).
16 For Hemphill (1995) the *revisioning* opportunities of VR for sports are many and
17 describe circumstances that would affect the athlete's as well as the spectator's
18 experiences of sport. The question is then raised as to what kinds of changes take
19 place and whether they are valuable sporting experiences.

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22 THE VIRTUAL SPECTATOR

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24 In the same sense that one may consider television to have radicalized specta-
25 torism by providing wider opportunities for people to experience events and by
26 separating the spectator from the event (Shergold, 1979), VR present a similar
27 degree of change for spectatorship. Hemphill (*ibid*) outlines how VR might be
28 used by spectators, describing how head-cameras could be worn by spectators
29 that would enable total immersion spectating. With the athlete fitted with a
30 micro-camera on their body, the spectator could (virtually) experience the
31 performance of the athlete as if performing for themselves through a computer-
32 generated simulation. In Katz (1995), the Microsoft technologist tycoon Paul
33 Allen claims that the future is truly fantastic in regard to virtual technologies
34 suggesting how "realistic athleticlike or coachlike experiences that you can share
35 with others online, in a real-time environment, are just sitting there over the
36 horizon" (p. 62). However, tempering this optimism a little, Allen claims that
37 the best seat at a basketball game would still be the one "under the basket"
38 (p. 77). This seemingly contradictory statement, highlights a common and under-
39 lying narrative in response to VR. The idea is often claimed that, no matter
40 how advanced the technology, the best possible way to engage with an event

1 is directly through sensory reality. However, with simulation technology,
2 *everyone* can have the seat under the basket through a simulation.

3 Less radically, Hemphill argues that greater interactivity between the spec-
4 tator and the event would entail the spectator directing the performance that
5 they observe, choosing camera angles, zoom length, and replay. This sentiment
6 is echoed by McDaniel (1998) who recognises how “spectators can become
7 true armchair managers, as they play fantasy games with one another on the
8 WWW” (p. 267). These various applications of computer technologies and
9 fantasy leagues reflect how the spectator’s experience tends towards greater
10 immersion rather than increased passivity. However, this is not to claim that
11 the spectator is becoming more active during their spectator experiences,
12 although it might be the case. Again, this increased agency is reflected by the
13 volume of electronic newsgroups related to sports clubs (Malec, 1995; Rowe,
14 1999). The breadth of opportunities to form communities that have strong
15 connections and an increased sense of loyalty can have a significant role in the
16 formation of fan groups (see particularly Markham (1998) for non-sporting
17 ethnographic research into virtual communities).

18 Alongside these *real* networks, computer gaming now replicates the sporting
19 world so acutely, that it also provides a way for the fan to engage with sport.
20 With player-manager games, the players, teams, officials, and strip colours are
21 all highly reflective of the current sport season (or at least the previous one),
22 and the abilities of the players is based on the most recent player statistics. The
23 player-manager games allow the user to know about sport, without any other
24 basis to form an opinion. Even advertising in computer games takes on a dramati-
25 cally current and realistic appearance, with the latest sponsors of major sporting
26 events branding their logo to the computer game product. Additionally, trends
27 in video gaming seem also to suggest an interest for the user to become within
28 an activity. Indeed, recent simulation games are becoming increasingly like
29 virtual sports and are more closely resembling exercise ergometers than
30 keyboards.

31 Recent games entail paddling a virtual kayak, riding a virtual horse in a race,
32 and virtual skiing.¹ For anybody that has tried these games, it is possible to
33 sympathise with the argument that the video game player is not necessarily the
34 stereotypical unhealthy, sedentary individual. A two-minute game on either of
35 these examples utilises full-body movement and is comparable to two minutes
36 of any vigorous exercise. Even more recently, dance games have emerged in
37 video arcades, where players must keep in time with dance patterns shown on
38 the screen in an attempt to stay with the music.² Thus, the most uncoordinated
39 person can become relatively competent using this technology. Again, such
40 games are highly active and blur the boundaries between virtuality and reality

1 that can make interesting research to find ways of promoting health through
2 exercise outside of competitive sport. Equally, they are examples of how VR
3 can offer appealing differences for engaging with sport that, without the
4 technology, might not be possible. Indeed, they are quite different from
5 the stereotypical idea of virtual experiences being wholly mental or bodiless
6 activities.

7 These examples reinforce the idea that the spectator is becoming an active,
8 virtual participant in the sporting event. The level of interaction is such that
9 the spectator and the event are becoming increasingly problematic to distin-
10 guish. It is no longer simply a case of a spectator sitting in front of a screen.
11 The promise of VR and the tendency of these examples is to bring the spec-
12 tator within the screen. Thus, the interesting concept relating to VR is not
13 *interactivity*. Rather, it is the *immersion* of the spectator into the experience,
14 where both spectator and sports event are interacting inter-dependently. The
15 most simple way to conceive of this phenomenon is to consider that the newly
16 immersed spectator becomes more like the fan who is in the stadium though
17 the virtual fan is much more than the fan in the stadium. The importance differ-
18 ence is the role ascribed to the virtual spectator. No longer are they relegated
19 to bad seating positions or anonymity in the club. The VR offers a direct link
20 with the club managers and players. Spectators can begin to communicate their
21 ideas about the club to each other and even the club directly. They might even
22 play an active role in the development of the club by submitting ideas and
23 proposals to club officials. Alternatively, the club can ask them to respond to
24 central questions that they have regarding the club. With this in mind, it is also
25 interesting to note the way in which the role of the media alters because of this
26 direct access to official bodies. No longer is the traditional media the only
27 gateway to official information and the club can access its members directly.

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THE VIRTUAL ATHLETE

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31 Comparable to the significance of the changes in spectatorship is how virtual
32 technologies can affect the athlete, though the alteration is distinctly different.
33 Whereas the spectator has been suggested as tending towards greater *immer-*
34 *sion* within sport, the virtual athlete would seem to be *abstracted* from sport.
35 By this, I suggest that the technology tends to remove the athlete from the
36 performance environment in both a physical and mental sense. The athlete's
37 performance is fragmented as their physical performance is dissected and
38 digitalized into the relevant aspects of expertise directed by the nutritionist,
39 biomechanist, psychologist, physician, and coach. This is not to say that the
40 athlete is without their body, but that the body adopts a different way of being.

1 In VR, the athlete is taken out of the performance environment and placed into
2 swimming tanks or onto treadmills where all sense of the sporting environment
3 is simulated. Already, virtual reality is even being used as a training mecha-
4 nism for elite competition. The U.S. bobsled team utilized a simulation
5 environment to allow their team to experience the track they would face at the
6 Nagano Winter Olympics in 1998 (Huffman & Hubbard, 1996). As well, there
7 exist simulators for a variety of sports, which are used by elite athletes in
8 training, such as swimming, skiing, and rowing. For example, the Cambridge
9 rowing club in England uses an indoor rowing tank for training its athletes (*The*
10 *Guardian*, 1997).

11 By extension, Akins (1996) considers how virtual sport might be possible
12 by using the example of golf where computer-aided drafting (CAD) has been
13 used to develop various technologies, such as clubs, balls and shoes. Using
14 golf swing simulators, Akins recognizes, that technology can measure direc-
15 tional forces and translate these into a visual representation of a golf stroke.
16 Thus, when taking a swing, the computer simulation displays how the golf
17 ball would have been struck, including angle and a calculated projection of
18 the length the ball would reach on a fairway. This would give the player a
19 visual, accurate, and immediate representation of how successful the shot had
20 been. Moreover, because all the information is digitised, it can also be used
21 to provide feedback on the players' technique. As Akins points out, "in the
22 future, technologies such as geographic information systems (GIS) and virtual
23 reality will allow an architect to design, build, and even play golf course
24 without moving a single ounce of earth." The opportunity to design a virtual
25 golf course that replicates environmental changes in temperature, terrain, and
26 wind speed can thus, provide great opportunities to construct ideal golf courses
27 that respond to the specific kind of challenge that is being sought from a
28 competition. It is not inconceivable that this technology could render a future
29 for golf that is entirely virtual.

30 These descriptions can have a number of positive consequences for sport,
31 though it is interesting that such a discourse about virtuali*is not branded with
32 the similar optimism that might be said of the same technology for the spec-
33 tator. This can be attributed to the way in which virtual reality (VR) would be
34 used by athletes, which raises alarming questions about the value of sport and
35 human performance. As Blake (1996, p. 165) argues, "technology is changing
36 the limits of the body, and of the imagined community through the provision
37 of virtual sport" and it is the questions raised by this that makes
38 the idea of virtual sports performances difficult to appreciate. Such concerns
39 are not as readily seen from the perspective of the spectator, where the future
40 seems to consist of greater engagement and opportunities.

1 If the negative view is where athletes are isolated, coaches are redundant,
 2 and the ruling of officials is undermined by the video replay, then the positive
 3 is that the spectator can become a participant and the athlete can be assured of
 4 more precise conditions of competition. However, the benefit of these tech-
 5 nologies is far from clear and must be brought under the scrutiny of sports
 6 ethicists, so that it becomes clearer whether the altering effects of these tech-
 7 nologies is at all desirable. The critical question is thus, whether the value of
 8 an event is necessarily tied to it being somewhere. I suggest here that it is not
 9 and, rather, that its value is found in it being *everywhere*, which is what VR
 10 can offer. If sport is a test of athletes within a public arena, amongst other
 11 athletes, that embraces environmental influence as an important way of distin-
 12 guishing excellence, then the importance of an arena is clear. However, such
 13 ideals must be reconciled with the apparent interest in constructing a playing
 14 field that is level – which might only be possible in virtual worlds.

15 NOTES

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 18 1. See Amusitronix' website for information about some of their games
 19 <http://www.amusitronix.com/>
 20 2. See Konami's *Dance Dance Revolution* website for information, <http://www.konami.com/arcade/Music/Ddr>
 21 3. As Simon Shaps (2001), of Granada Broadband notes, "98% of Liverpool fans
 22 [English soccer club] have never been to Anfield, the ground."

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