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Television Sport Broadcasting and Technology
"If It's in the (Video) Game, It's in the Game"

"If it's in the game, it's in the game."
-EA (Electronic Arts) Sports Slogan

The interdependence of technology and sport is indisputable. It is difficult to conceive of a sport that does not require some sort of equipment – be it a ball, a net, an engine or a timekeeping device. Any athletic contest that relies on such external props for its play reveals the inherent reliance of sport upon tools and technology. The advent of organized sports and professional leagues has accentuated this relationship, as continuously revised official rules and regulations dictate equipment standards, from the exact measurements of a ball to the precise conditions under which a sport can be played.[1] But the union between technology and sport is at its most apparent when television broadcasting is introduced into the equation. The close relationship between sport, television and technology has been recently emphasized by the explosion in the popularity of video games, specifically sport games. Indeed, while early sport video games drew their presentational inspiration from television broadcasting, the trend is now showing signs of reversal, wherein televised broadcasts are taking their technological cues from video games. I argue that this relationship has been adopted as an industrial strategy as both television broadcasters and game developers mimic each other's televisual style in an attempt to sell their products in multiple media channels.

Further, I contend that the advent of sports video games has furthered the commodification of sport, a trend which can be tracked through video games' stylistic influence upon broadcast sports. In order to discuss this reciprocal relationship, I will briefly explore the histories of sport and video games before comparing the televised broadcasts of two professional sporting events to their interactive equivalents.

A Brief History of Sport and Video Games

Much like modern media, both sports and video games were effectively made possible by the arrival of systemized processes of mass production engendered by the Industrial Revolution. As such, it is useful to briefly trace the historical development of both sport and video games in order to investigate their unique reciprocity; however, in order to do so, it is necessary to consider their shared cultural and conceptual lineage. The history of sports and video games evince their mutual reliance on industrialization and technological development; however, both find their basis in a more culturally and historically fundamental element: play. Johan Huizinga famously notes the significance of play in his seminal work *Homo Ludens* with his opening statement, "Play is older than culture."[2] Huizinga

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establishes that play precedes the development of culture, noting the play of animals. He explores the anthropological roots and formal characteristics of play, and then traces the roles it has in influencing ritual, business and politics.[3] Huizinga's observations are indicative not only of the pervasive influence of play upon culture, but also of the degree to which play structures contemporary society. The potency of the multiple cultural valances of play is clearly evinced by its centrality in regards to behavioral practices ranging from interpersonal relationships (i.e. "the game of love") to financial markets (i.e. "playing the market").[4] The economic and cultural significance of play is brought into sharp relief by the sport and video game industries—both of which are fiscally structured around play and simultaneously reliant on technology. As John Rickards Betts argues, the Industrial Revolution and technological innovation played a central role in allowing for the emergence and evolution of modern sport; the importance of industrialization is the late-19th century to organized sport evinces that technology played a necessary role in sport long before both television and video games.[5] Following the first commercial sports broadcast of Major League Baseball (MLB) and National Football League (NFL) games in 1939, American sports and television have been inextricably tied to one another.[6] Indeed, David Rowe deems the liaison between sport and television so intimate that that he likens it to a marriage—albeit a somewhat contentious one.[7] This relationship has grown profoundly over the years as an increasing number of media outlets offer sports-dedicated programming as part of broadcasting and narrowcasting strategies and leverage ever-more specialized technologies to enhance televisual spectatorship, further demonstrating the pronounced linkages between the technological and financial facets of the industrial practices of sports broadcasting.[8]

Much like modern organized sports, video games are similarly dependent—if not more so—on technology. Video games could not exist without computer processors, memory, or screens, and the rapid development of these technologies has dramatically transformed the video game landscape. The televisual and narrative experiences offered by video games have evolved considerably

since their inception in the 1950s; the massive increase in computational and graphic processing power was accompanied by a progression from simple lights and grainy black-and-white screens to the high-definition screens of today. But these forms of digital media in turn owe much of their development to organized sports. The influence of sports upon video games has been clear since their inception, as several of the earliest digital games were conceived as emulative experiences of sporting events. At the Brookhaven National Laboratory, a government nuclear research facility, William A. Higinbotham created what some believe to be the first computer game, *Tennis for Two*. Higinbotham, who had previously worked in early radar research and engineered timing devices for atomic bombs, created a two-player tennis game for entertaining visitors to the facility.[9] Independent of Higinbotham's creation, students at the Massachusetts Institute of Technology (MIT) created *Spacewar* four years later as a two-player experience pitting two spaceships against one another in a duel.

But the video game industry did not blossom until Nolan Bushnell created a commercial version of the MIT game which he entitled *Computer Space*, and used the nominal royalties from this adaptation to finance the creation of a new company named Atari and its first original game.[10] *Pong* debuted in 1972 and its immense success fueled the rapid growth of both Atari and the video game industry as a whole. That these early games were based around competition between two players is by no means accidental, as technical limitations in early games often restricted the types of games that could be created. Hardware and software constraints initially prevented game developers from realistically simulating a computer player with artificial intelligence (A.I.), especially as the graphics themselves were particularly processor-intensive.[11] As such, early games were severely limited in their representational capacities, and many resembled simple board games rather than graphically realistic figures. The popularity and widespread availability of Mattel's handheld electronic games in the mid-70s reinforces its utility as an example of an early iteration of rudimentary representational graphics. Rather than requiring a television or computer monitor to play, these games were self-contained

and handheld—a by-product of the popularity of both home video games and pocket calculators. The games were built around the light-emitting diodes (LEDs) which could be controlled by the player. In this form, video games offered players an on-screen "avatar" in the form of simple red light. Akin to a marker or button used in a children's board game, these monochromatic red lights could imply virtually nothing about the on-screen players, other than their relative positions to one another. The first game in the Mattel Series was *Auto Race* (1976), in which players would direct a single red light through the "traffic" of other "cars"— namely, other red lights. Players accumulate points by successfully maneuvering through multiple waves of red lights, each succession representing a lap around a race course. This simple game was enormously popular (the entire handheld sports series generated in excess of $400 million in sales), prompting Mattel to follow-up the automobile racing game with several other iterations based on the same technology.[12] The second game in the series was more clearly a sporting game: the following year, Mattel released *Football* (1977), in which the simple LED lights represented a quarterback on a football field.[13] The popularity of these early games is striking, particularly given their fairly simple gameplay and limited representational aesthetic. The visual linkage between these early games and the sports which they simulate was quite tenuous and far more metaphorical than realistic; to borrow Charles S. Peirce's terms, these LED representations are more symbolic than even iconic, as these signifiers do not resemble that which they represent.[14] These patterns of signification begin to shift in the coming years, however, as increasingly powerful hardware and software systems begin to permit increasingly

Early sports game: *Football* (Mattel, 1977) and LED avatars.

iconic and, ultimately, indexical representations. In these early stages, sport video games attempted merely to emulate the fundamental aspects of the rules of these sports, rather than to imitate the spectator's experience.

The demonstrated financial potential of such rudimentary games stimulated explosive economic and industrial developments; home consoles soon began to be sold by multiple companies and the birth of the personal computer market followed suit. The presence of multiple hardware platforms provided the ideal market for independent software publishers to peddle their wares to multiple outlets. One such company was Electronic Arts (EA), created by ex-Apple employee Trip Hawkins in 1982. As a shameless promoter and somewhat of a huckster, Hawkins recognized the selling power of athletes and contacted the agent of NBA star Julius "Dr. J" Irving to ask if "his client would be willing to let Electronic Arts use his name and likeness in a computer basketball game," as well as representatives of Larry Bird.[15] The resulting game, *Dr. J and Larry Bird Go One-on-One* (EA, 1983), is indicative of a shift to iconic representations, as the Apple II, the more powerful system the game was built for, allowed for a higher screen resolution and 16 colors. The avatars representing the two professional basketball players were, at least by the standards of the day, distinctive and immediately recognizable.[16] The game depicts the two stars as not only distinctly different *characters*, but also as possessing different play *characteristics*.[17] The game also featured an end-court camera, simulating spectatorship from off-court seating behind the avatars and the court, affording its players better control and enhanced spectatorial positions than other games. The game was a bestseller and inspired the company to further its sports line and begin
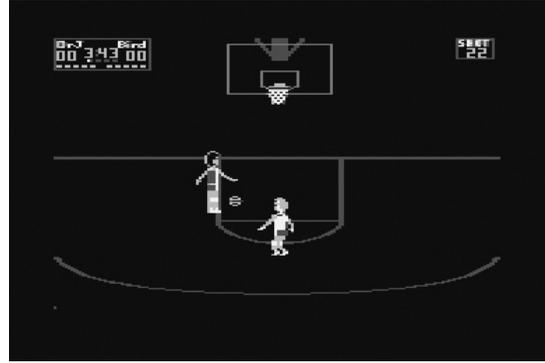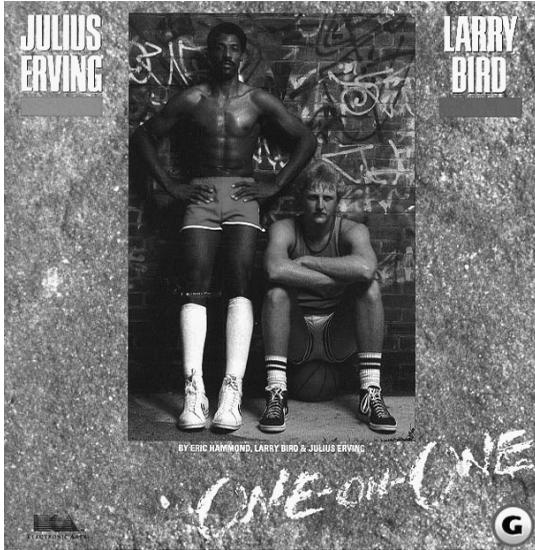
Iconic representation: *Dr. J and Larry Bird Go One-On-One* (EA, 1983).

development on another game with the association of a well-known NFL entity: *John Madden Football* (EA, 1989). The 1990 debut of *Madden Football* on the Sega Genesis system is widely credited with helping establish the Genesis platform as an industry leader and validated EA's reputation as the leading sports video game publisher.

Aesthetics and Implications of Sport on Television and in Video Games

Video games have traditionally emulated the viewer's experience of a broadcast sporting event, and early EA games are no exception. *Lakers Versus Celtics and the NBA Playoffs* (1990) provides ample evidence of this presentational style. The game features a side-view of the basketball court, as found in television broadcasts of NBA games.[18] Players are introduced at the start of each contest, with the names, pictures and statistics of each team's players displayed over a backdrop of the "arena," again emulating NBA televisual style. Prior to the start of each game, virtual announcers in the form of (barely) animated images of two men introduce each game from behind a desk, with a large sign that reads "Electronic Arts Sports Network." These graphical elements in the game are strongly indicative of the software's attempt to emulate John Caldwell's notion of "televisuality." Caldwell discusses the interrelation of several factors in television production techniques that resulted

in a strong stylistic emphasis on videographic aesthetics after 1980.[19] He suggests that this recent stylization of television draws from economic, industrial, programming and audience factors, among others. Given this inter-reliance, Caldwell contends that this "excessive stylization"—what he terms televisuality—is more than merely a passing fad but is instead indicative of a larger consumer trend. This trend is clearly demonstrated in the evolution of sports broadcasts and the video games which seek to emulate these same broadcasts; indeed, specific televisual elements serve as the shared language between the media forms.

John Madden Football appropriates television stylistics in its gameplay, with in-game audio commentary on the game's events from its namesake broadcast analyst. Like NFL television broadcasts, *Madden Football*'s game introductions feature a wide shot of the arena where the virtual game is to be played, with each team's name and relative strengths and weaknesses listed. Interestingly, the game abandons a broadcast-style camera during gameplay, eschewing the conventional look for a "floating camera" that hovers over gameplay to afford its players more intuitive control of the action. Earlier games such as *NFL Football* (Mattel, 1979) and *Tecmo Bowl* (Tecmo, 1989) featured a more familiar sideline camera, but this perspective has all-but-vanished since.[20] The presence of the imaginary Electronic Arts Sports Network is clear in the "EASN" logo during game introductions of the sequel *John Madden Football '92* (EA, 1991), which also features reaction shots of the "crowd" for some plays.

The second version of *John Madden Football* was far from the last. EA capitalized on the success of the franchise and now releases an annual version of the game across multiple platforms at the start of each NFL season, with updated rosters, improved graphics and new features. EA has been quick to "brand" the *Madden* series and several of EA's other sport franchises (such as *NHL Hockey* and *NBA Live*, a practical successor to *Lakers Versus Celtics*), all under the umbrella of the EA Sports label. Here Robert Bellamy's examination of the importance of branding to broadcasting is useful to consider; he argues that sports coverage is often associated with specific networks or producers, such as *ABC's Monday Night Football*.[21] Bellamy notes that this branding is essential in the age of the remote control, where viewers may have difficulty distinguishing between a growing number of viewing options at their disposal.

This nicely parallels the similar branding (such as EA Sports) in video games, which in turn offer the television audience another viewer choice in the form of a realistic sporting event in which they have agency. Bellamy investigates the transformation of the television industry itself, noting a pattern of financial loss that he attributes to the rise of cable sport, arguing that such factors have placed increased importance on the "vertical and horizontal integration of the ownership of the networks with other disparate media companies."[22] He observes that sports are an essential component to this new marketplace, as networks and media companies such as Fox use sports to cross-market across their many brands and markets; this integrated marketing approach generates new sources of revenue to supplement television revenue, while continuing to rely on television for sports exposure. Thus media conglomerates such as Rupert Murdoch's Fox Corporation use such techniques to market their sports product across multiple markets, allowing them to re-package and re-brand content across multiple media streams. For instance, the "look" of a Fox sports broadcast could be repackaged for a Fox video game, allowing the two revenue streams to support each other. Indeed, the attempted establishment of the Fox Sports video games division and the recent, more successful establishment of the *ESPN Football* (Sega, 2003) and *ESPN Basketball* (Sega, 2003) franchises testify to this strategy.[23]

John Fortunato explores NBA games through methods of framing, using a concept of "portrayal" which divides into framing instruments (cameras and announcers) and framing strategies of depiction (personalizing players and developing storylines).[24] Analysis of the framing instruments is helpful in understanding the strategic use of cameras and replays to enhance multiple aspects of the game. Fortunato's observations are equally applicable to NFL broadcasts in their establishment of storylines and player/coach personalization through framing strategies. Fortunato observes that the NBA has long considered the placement of television cameras an essential part of promotion of the NBA, noting that the league's facility requirement for new arenas includes "stipulations regarding the camera placements and where the media will sit for a game."[25] The instruments of cameras and announcers are used to enact the framing strategies that include the portrayal of player and
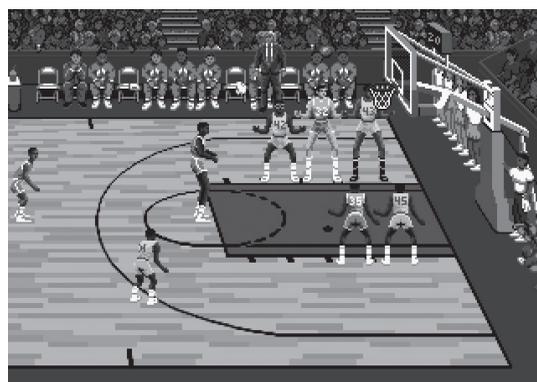
Presentational style: *Lakers Versus Celtics and the NBA Playoffs* (EA, 1990).

(above) The imaginary Electronic Arts Sports Network of early Madden games. (right) *Tecmo Bowl* (Tecmo, 1989). Both serve as examples of TV stylistics in video games.

coach emotions to enhance game intensity. These framing strategies boil down to techniques that the networks and the NBA employ to maintain viewer interest, and Fortunato argues that these techniques are used to enhance both the viewer's enjoyment and understanding of an NBA game. It is this combination of framing methods and strategies that better help an audience learn "about the content of what it is watching," thus making the audience a better consumer of future of NBA games.[26] This conclusion works well with the importance of synergy and branding as indicated by Bellamy to the multiple industries that benefit from better-informed—and thus more appreciative—sport fans and consumers.

The April 9, 2004 ESPN broadcast of the Indiana Pacers and New Jersey Nets game provides an abundant examples of Caldwell's televisuality, as well as the framing strategies that Fortunato describes. After establishing wide-angle views of the arena space with overlays of the team, NBA and network logos, ESPN's cameras move to the courtside announcers. The significance of the game is quickly established as the announcers relate the back stories of the teams and players, emphasizing a few players on each team while the cameras provide close-ups of the players described. Starting line-ups are graphically presented, with small pictures and statistical information for each player on each team, displayed over a backdrop of a high angle shot of the arena. Finally, the game begins with a high camera shot of the tip-off, which then reverts to the familiar side angle camera for most of the game. In-game coverage does feature occasional novel viewpoints, which traditionally have been reserved for replay only. Players' accomplishments are highlighted by occasional close-ups with graphical overlays detailing their "stats" and the introduction of new graphics is often accompanied by dramatic sound effects.

A game of *ESPN Basketball* features amazingly similar features of presentational coverage to their televised broadcast. After the game is turned on, the opening credits prominently feature the logos of ESPN, the NBA, and the game's developer. As a game begins, the arena space is again established with wide-angle shots of the virtual space enhanced by logo-heavy overlays. Player rosters are introduced with a high-angle shot and the announcers stress the significance of the game's outcome to each team, highlighting the key players with camera close-ups and "voiceovers" by the pre-recorded announcers. These framing devices also serve to support Preben Raunsbjerg and Henrik Sand's formulation of televised sports as a negotiation between organizer, producer and viewer.[27] Video games seem to further Rausenbjerg and Sand's approach, as the passive television viewer in their model becomes an active player in sports games. Unlike the television counterpart, the game player may actively select different camera angles during the game and replays, intervening in the framing strategies employed by the game engine.

For the tip-off, *ESPN Basketball* features the standard broadcast high sideline angle, but the game reverts to the floating camera popularized

by *Madden* for greater player control.[28] After key plays, the game camera shows close-ups of the players (with graphic statistical overlays) involved in the play, reacting in an appropriate fashion. Instant replays are automatically selected for what the game engine deems particularly exciting plays, the arrival of which are conveyed with a pause in the gameplay, the announcers describing the replay, which sandwiched between an overlay wipe of the ESPN logo. The ESPN broadcast of the Pacers-Nets game features many of these same attributes, its own multi-angle replays bookended by a flying—and highly televisual—ESPN logo. Much like their broadcast equivalent, these instant replay in the video games, place a pronounced focus on the (virtual) physicality and performativity of the depicted players. Margaret Morse argues that in television sports replays the repetition of the physical feats of players "is transformed into a scientific inquiry into the limits of human performance."[29] For Morse, the television replay emphasizes the physical prowess of players, affording multiple vantage points to fully investigate the capacity of the human body. She describes sport as a "masculine preserve," the only circumstance in which the male body is considered a legitimate object of the male gaze; Morse contends that the legitimization of the male gaze is allowed by sport's delicate balance of play and display, wherein the gaze assumes the guise of scientific inquiry.[30] In a sense, video games serve to further reify this "scientific inquiry" into the male form and human (albeit virtual) performance by greatly enhancing the capacity to view and review play from an infinite number of angles, shifting control of these "live-action" and replay cameras from the television producer to the player. By allowing the player to initiate replays at any time during the game and control the angles from which they may be viewed, modern sport video games effectively offer the player endless temporal and spatial re-examinations of in-game performance.

That virtually all sport video games are based on masculine sports only furthers Morse's argument, as the focus of these enhanced replays is almost solely on representations of male athletes.[31] Continuing the trend established with EA's *One-on-One*, the licensing of the likenesses of professional players is a cornerstone of successful sports video games. Virtual athletes thus increasingly resemble their real-life counterparts both visually and in terms of assessed ability, pushing these representations towards a degree of indexicality unseen in early games. This league-sanctioned licensing of the players' bodies strongly supports Toby Miller's assessment that sports have increasingly commodified the male body; he notes that, "Men, too, are becoming dependent on the gaze directed at them."[32] In a sports video game, the athlete's body—already a commodity—is effectively repackaged and resold, effectively increasing its value. As increasingly powerful and complex rendering systems and games platforms emerge, ownership of digital likenesses is sure to become an increasingly lucrative, and thus contested, aspect of sport video games.

The year before *ESPN NFL Football* debuted, its precursor *NFL 2K3* (Sega, 2002) featured the first integration of ESPN-style presentation. In the game's opening, the Sega Sports brand is initially emphasized, but this introduction is followed by the distinctive opening music and graphics of ESPN's signature news broadcast "SportsCenter." The game displays a recorded video that exactly duplicates an episode of SportsCenter, filmed in the same studio and featuring the video of one of its more prominent announcers, who greets the user with the following:

> Hi there. Welcome to SportsCenter – I'm Dan Patrick. Plenty of good stuff to get to in the program tonight, but first, our top story of the day. Sega Sports, the authority in sports video gaming has drafted ESPN, the worldwide leader in sports as a key player to boost its critically acclaimed Sega Sports franchises to a higher level in order to score with gamers. Let's have a look shall we? First to the NFL…

The "SportsCenter broadcast" then demonstrates the video game in action, while Patrick's voiceover continues, establishing the back story of the NFL season at hand. This integration of actual television studio sets furthers the integration of video production into *Madden*, as discussed by Ernest Adams.[33] The implication of Patrick's presentation is that the taped broadcast is a real

one – his references to "plenty of good stuff to get to on the program tonight" and "first to the NFL" indicate that more sports news will follow. The SportsCenter studio, while clearly used to connote broadcast realism, betrays its authenticity in its attempts to brand itself—the digital scoreboard that stands behind the show's announcers does not show actual scores, but instead repeats the phrase "SEGA Sports."

Game introductions in *NFL 2K3* offer an assessment of each team by an ESPN announcer while ESPN fonts and graphics roll across the screen. Again, the arena space is established with a wide shot, and the primitive EASN graphic overlays as seen in an early *Madden* game are replaced with hi-tech ESPN sights and sounds. The announcers discuss the particular match-ups in the game through voiceover while a split-screen depicts the discussed players and coaches. Similar to *ESPN Basketball*, gameplay without players controlling the action defaults to broadcast-style cameras, but switches to the floating *Madden* camera when a player assumes control of the action. The ESPN logo is again found swooshing across the screen before and after replays, now enhanced with a telestrator-style yellow line "drawn" upon the play to highlight specific action during the replay discussed by the announcer voiceover. It is important to note that (just as in *ESPN Basketball*) players can also watch a replay of whichever play they choose, with complete freedom of camera placement and speed of the replay. Morse's notions of replay are transposed here into effecting scientific inquiry into the performance of a virtual athlete performed by a virtual analyst, with the added layer of the user being given the option to control of the temporal and spatial distortions she describes.

ESPN's November 23, 2003 broadcast of the NFL game between the Washington Redskins and the Miami Dolphins features a stylized and dramatic introduction designed to express the heightened importance of the game to the Washington players. High contrast shots of somber-looking athletes in the Washington locker room are combined with robot-like camera movements and sinister music while an off-screen voice issues the following unintentionally preposterous monologue:

How can 53 men lose sight of their singular goal? Your hopes have sunk into frustration, your emotions have turned against you. And now, no one cares for what you have to say for yourself. Say nothing. Do everything and anything it takes to justify your existence. The anticipation, the expectation of your season that seemed like an unwavering force has revealed its true frailty. We are never as large as we seem nor as small as we feel. Do not etch your legacy into stone yet. Will you protect your own? Will you regain your focus? Your respect? Your identity within the hallowed halls of your own existence? Day one may seem like a million miles away. Do not say a word. Just play.

The announcer's final word is punctuated by a black screen with the single word "play" plastered across the screen. The significance of this dramatic introduction is in that while the announcer is supposedly speaking to the Washington players, only the viewer can actually hear his words. The command to "Just play" is therefore issued directly to the viewer, casting her as player and bestowing agency in the process. The announcer seems to be suggesting that user become player by picking up their controller at home.[34]
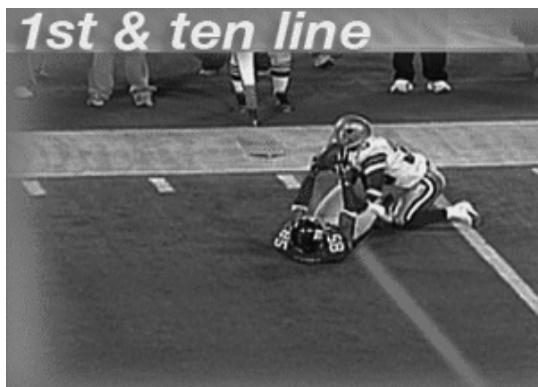
The game coverage bears strong resemblance to both the video game version and the NBA coverage as elucidated by Fortunato. Following the establishment of arena space with a wide shot, the teams are compared and back stories are explained and just as in *NFL 2K3*, the discussed coaches and player are presented in a split-screen framed by ESPN logos, while featured players are shown in zooms laden with graphical overlays listing their statistical accomplishments. The viewer is reminded time and time again that this game is incredibly important, no doubt both to heighten excitement and maintain audience share during the broadcast.

Beyond mere stylistic similarities between the broadcast of the NFL game and video game version, some technological implementations bear mention for their clear inspiration from video games. Notably, the game broadcast features Sportvision's "First & Ten" system, a videographic

overlay technology that allows broadcasters to paint a yellow line across the playing field on television screens that demonstrates where the first down marker (an objective in the play of football) is on the field.[35] This technology clearly draws its influence from game aesthetics, as a yellow line marking the first down area has been staple of video game football, preceding even *Madden*'s debut. Even more striking during the ESPN broadcast is their introduction (and subsequent use) of their "Skycam" technology. The system uses a wire-mounted camera system to suspend a camera over the football field, allowing broadcasters to follow the game from a previously unavailable angle. This perspective is almost identical to the floating camera featured in *Madden* and countless other sports games since. The announcer's description of the Visa-sponsored camera is telling:

> Visa presents ESPN Skycam, innovative technology on ESPN, the worldwide leader in sports. Visa Skycam provides some of the most unique and memorable images ever seen from angles no other single camera can achieve.

The network's emphasis on the singularity of Skycam's perspective is particularly interesting, as video game players instantly recognize Skycam's angle as the same as that of a virtual video game camera—one that is featured even in ESPN's own football video game.

ESPN's Skycam.

Conclusion

Even a cursory examination of early sports video games evinces their attempts to convey broadcast-like conditions. Computer technology has increased dramatically since the inception of digital games, and the duplication of broadcast realism now seems like a tantalizingly attainable goal. As video games offer their players increasingly realistic experiences, television broadcasters now find themselves forced to compete aesthetically with the very games that were initially mere primitive emulation. This trend is illustrated by the following comment by Evan Ratliff on the industrial attempts to infuse realism into sport video games:

> All of this fanatical detail serves to simulate not sports, exactly, but sports as fans know them: through the television lens. Both EA and Sega hire former television producers to incorporate TV camera angles. With its *2K3* series, Sega went further, licensing the ESPN brand and paying broadcasters to add *SportsCenter* pregame and highlight shows - *boo-ya!* EA now says it's moving beyond TV, adding field-level camera angles you

Game aethetics in televised sports: Sportsvision's "First & Ten" system.

won't see on *Monday Night Football*. "TV has been our guiding light for a long time," says (former *Madden* development lead John) Schappert. "At this point," he says, "I think TV might be taking some direction from us. We can do some things with our camera and our game that they simply can't do.[3]

Thus, what began as art imitating life has now reversed. The interplay between the sports video game and sports broadcasting industry is evident at the brand level (such as ESPN) and micro-level (the employment of former television producers to perfect a "broadcast look" in games).

Caldwell notes in *Televisuality* that the trend in the 80s and 90s towards excessive style and heavy use of video graphics was brought about for a number of reasons. Primarily, economic circumstances (such as the introduction of new networks and the advent of cable), as well as industrial factors (the spread of increasingly cheaper digital and video technology) contributed to this boom. Sports broadcasts are no exception to this trend toward excessive style, and, as indicated earlier, are often laden with televisuality. It is evident that sports video games have greatly contributed aesthetically to this trend in sports broadcasting, as indicated by their early integration of videographic elements and novel camera angles that have since been adopted by television broadcasters.

Caldwell points out that even seemingly unscripted media happenings such as sporting events are, in fact, carefully choreographed and orchestrated productions. This contention, especially when combined with his suggestion that televisuality is constantly evolving and attempting to outdo itself, strongly suggests that the recent technological stylization of sporting events is a work in progress. The ongoing aesthetic changes in broadcast sports demand a similar re-evaluation of the relationship between sport and television. Caldwell observes that the incorporation of technology into the televisual image was both an "industrial product" and a result of "economic crisis."[37]

I believe a similar trend – or perhaps an extension of the one that Caldwell discusses – is occurring today as major networks capitalize on their branding of sports to make sports more profitable. The degree to which branding has become essential to sports broadcasting reveals the degree to which sports are an essential component to the fractured post-cable television marketplace. Indeed, the growing economic importance of sports is increasingly evident as networks and media companies such as Fox and ESPN use sports to cross-market across their many brands and markets. Video games are simply another market—albeit an extremely profitable one—in which to leverage their brand.

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Notes

1 These conditions can directly require technology, such as the National Hockey League (NHL)'s reliance on a frozen surface for play even in above zero conditions (though the 11/22/2003 outdoor game between the Montreal Canadiens and Edmonton Oilers proves that nature can provide the ice), and indirectly, such as the NBA's stipulation that games be played indoors to control play conditions, and thus requiring electricity.

2 Johann Huizinga, *Homo Ludens: A Study of the Play Element in Culture* (Boston: Beacon Press, 1950), 1.

3 Ibid., 14-18, 200, 207-209.

4 Or even to wars—consider the tendency of military and political leaders to describe situations in game or sports terms. Of course, all of these cultural practices of metaphor are far more complex than this brief consideration and discussion.

5 John Rickards Betts, "The Technological Revolution and the Rise of Sport, 1850-1900," in *Sport, Culture and Society: A Reader on the Sociology of Sport*, ed. John W. Loy, Jr., Gerald S. Kenyon, and Barry D. McPherson (Philadelphia: Lea & Febiger, 1981).

6 Brad Schultz, *Sports Broadcasting* (Woburn: Focal Press/Butterworth-Heinemann, 2002), 9.

7 David Rowe, "The Global Love-Match: Sport and Television," *Media, Culture and Society* 18 (1996).

8 For an overview of technological adoption and the economic impact of cable networks such as ESPN and Fox Sports Net, see Schultz, *Sports Broadcasting*. As Schultz makes clear, ABC's Roone Arledge was heavily influential in his integration of technology into the sports shows such as *ABC's Wide World of Sports* and *ABC's Monday Night Football*.

9 Steven Poole, *Trigger Happy: Videogames and the Entertainment Revolution* (New York: Arcade Publishing, 2000), 15.

10 Steven Kent, *The Ultimate History of Video Games* (New York: Prima Publishing, 2001), 38.

11 As hardware and software rapidly evolved, games systems allowed for increasingly complex computer-controlled behavior. Consider the difference between the simple left-right patterned movement of the aliens in *Space Invaders* (Taito, 1978) to the more complex behavior of the ghosts in *Pac-Man* (Namco, 1980) only two years later.

12 Kent, 201.

13 Ibid., 201.

14 Charles Saunders Peirce, "What Is a Sign?," in *The Essential Peirce: Selected Philosophical Writings, 1893-1913, Vol. 2*, ed. Nathan Houser, et al. (Bloomington, Indiana: Indiana University Press, 1998).

15 Kent, 265.

16 It should be noted that these two representations are racially coded, both graphically and in the attributes each player is afforded. Many early games evince patterns of racialized representations—a trend which continues to this day.

17 This trend has continued into present day sport video games, where players' attributes are determined on their recorded statistical output from the previous season. Players are also given signature moves to better imitate their real-life counterparts.

18 It should be noted that several other early basketball games featured a similar side-court angle, such as the Atari 2600 game *Basketball* (Atari, 1978) and *Double Dribble* (Konami, NES, 1987).

19 John Thorton Caldwell, *Televisuality: Style, Crisis and Authority in American Television* (New Brunswick: Rutgers University Press, 1995), 5.

20 Curiously enough, Atari's own *Football* game (1978), one of the first football video games, featured a similar perspective on gameplay. However, this angle was directly from above, identical to many other early games, effecting a 2-D gamespace not unlike that found in a traditional board game.

21 Robert V. Bellamy, "The Evolving Television Sports Marketplace," in *Mediasport*, ed. Lawrence A. Wenner (New York: Routledge, 1998), 73.

22 Ibid., 77.

23 See R. Thomas Umstead, "Fox Sports: Playing Video Games," *Cablevision* (December 13, 1999): 84. In attempting to create their own games from the ground up, Fox Sports fared poorly in the intensely competitive video game market and no longer produces games at the time of this article. ESPN apparently learned from this lesson and partnered with established game developer Sega to make its own video games. It should be noted that EA signed an exclusive five-year license with the NFL in late 2004 and a similar agreement with ESPN in early 2005, preventing competitors from using NFL teams and players and ESPN graphics and logos. This agreement was renewed in early 2008 to last until 2013.

24 John A. Fortunato, "The Television Framing Methods of the National Basketball Association: An Agenda-Setting Application," *The New Jersey Journal of Communication* 9, no. 2 (2001): 172-80.

25 Ibid., 173.

26 Ibid., 180.

27 Preben Preben Raunsbjerg and Henrik Sand, "Tv Sport and Rhetoric: The Mediated Event," *Nordicom Review* 1, no. 1 (1998): 160.

28 It should be noted that the game offers players the ability to pick their own camera angle, and, most interestingly, uses a selection of broadcast-style angles if no players are selected and the game merely simulates a contest. As in football games, the broadcast-style side angle perspective has largely disappeared from basketball games with a notable exception. Games that emphasize performative play by rewarding players for not just scoring, but doing so in a stylish manner that humiliates opponents still feature this camera angle, such as *NBA Jam* (Midway, 1993) and *NBA Street* (EA, 2001).

29 Margaret Morse, "Sport on Television: Replay and Display," in *Regarding Television*, ed. E. Ann Kaplan (Los Angeles: American Film Institute, 1983), 45.

30 Ibid., 44-45.

31 There are several notable exceptions to the line of male-dominated sports games, including 8 National Collegiate Athletic Association women's teams in *NCAA March Madness '98* (EA, 1997) and WNBA players in *NBA Street Homecourt* (EA, 2007). However, countless non-sport games objectify the female body.

32 Toby Miller, *Sportsex* (Philadelphia: Temple University Press, 2001), 40.

33 Ernest Adams, *Putting Madden into Madden: Memoirs of an EA Sports Video Producer* (April 26 2002), http://www.gamasutra.com/features/20020427/adams_01.htm (accessed November 13, 2007).

34 A similar blurring between on-screen athlete and player controlling virtual athlete can be seen in a Campbell's Soup advertisement from the 2003-2004 NFL season. The ad features Donovan McNabb visiting the home of a fan to encourage him to consume Campbell's products. Following dinner, the two sit down to play a video game, which prompts an argument over who "gets to be McNabb" in the game. Curiously, both Campbell's and *Madden Football* are purported to have a curse wherein their annual pitchmen have been beset by injury during the season in which they are advertising the given product.

35 *Sportvision Celebrates Second Emmy Award for 1st and Ten System* (October 6 2000), http://www.sportvision.com/news/news_main_dev.php?id=53 (accessed November 12, 2007).

36 Evan Ratliff, *Sports Rule!* (January 2003), http://www.wired.com/wired/archive/11.01/sports_pr.html (accessed November 13, 2007).

37 Caldwell, 7, 10.