

Christopher Hanson

The Instant Replay

Time and Time Again

The instant replay marks a unique occasion where television folds in on itself—it is the instant in which some of the most predominant and tightly-held theories about television are challenged and subverted. The instant replay erodes the medium’s conceptual (albeit somewhat contentious) pillars of “flow” and “liveness” to a significant degree by way of its interruptive and erstwhile nature. As such, this paper will examine the instant replay through several lenses, with the intention of demonstrating that the established discursive and conceptual boundaries for the replay may be due for significant expansion. I will first explore the instant replay in televised sports programming—perhaps its most recognizable (and scrutinized) implementation—briefly sketching out previous considerations of the replay’s usage in sports broadcasting.¹ Next, the technological and industrial histories of the instant replay will be considered, investigating its shift from the broadcaster to the viewer and charting the challenges it poses to theoretical models of television. Finally, I will speculatively explore the instant replay’s implications for our understanding of perception, experience, and intellect, leveraging the writings of Henri Bergson for support. Just as the instant replay destabilizes our conception of the “flow” of television, I would argue that it also calls for a reassessment of our understanding of the lived experience of television spectatorship.

The Replay’s Early Days on Television

There is some debate as to exactly when the instant replay made its television debut. One popular account places its first deployment during the broadcast of an Army-Navy football game on December 7, 1963.² However, this usage was preceded by almost a decade in Canada—in 1955, George Retzlaff utilized a rapid processing technology from kinescope recordings to produce replays of key moments of games on the program *Hockey Night in Canada*.³ While such film-based systems proved expensive and cumbersome, the advent of magnetic tape technologies and their rapid adoption by the broadcast industries during the 1950s facilitated the widespread proliferation of equipment with the capacity to perform instant replays.⁴

Indeed, perhaps the most familiar form of the replay is its use in sports television coverage. During the 1960s and 1970s, ABC’s Roone Arledge integrated novel technology and presentational techniques into sports shows such as *ABC’s Wide World of Sports* and *ABC’s Monday Night Football*; he is widely credited with the influential development and improvement of such technologies as the instant replay and slow motion.⁵ The instant replay has since become a standardized feature of televisual sports presentation and its significance

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has rapidly grown since its debut, to such an extent that the replay has now been incorporated into the rules of play of several professional and collegiate sports. Officials may review decisions made in “real time” by watching recorded footage of previous plays, allowing them to reverse or revise decisions made on the field. While NFL rules since 1986 allow officials to review plays by examining instant replays of recent game events at their discretion, rule changes made in 1999 also grant the coach of each team the authority to request a set number (currently two per half) of official reviews of questionable on-field calls.⁶ These requests for replays are at the head coaches’ discretion, and the requesting team is penalized if the initial ruling on the field is not overturned. NFL teams now employ personnel dedicated to constantly scrutinizing instant replays of each play during a game in order to minimize risk of penalty. As such, the proper usage of the instant replay has become an essential strategic element to play itself of NFL games—and their play is increasingly marked by interruption more than continuity.

The viewer’s temporal experience of NFL games, as well as other sporting events, has been similarly fractured by the replay. As previously noted, broadcasting networks have long employed the instant replay to accentuate specific sequences in sporting events; these replays often occur outside of the game time of the depicted event. That is, the game clock of a given sporting event is often paused while the replay is shown both on television screens at home and on large screens in the stadium.⁷ Thus the viewer’s temporal experience of the sporting event is quite distinct from the game clock of the event itself—as time continues for the spectator during these replays, it freezes in the game. In the NFL (as well in other sports), the replay therefore ruptures the analogous temporalities between the

sport and its spectatorship alike as well as further differentiating the two from one another. However, despite disrupting both the game’s flow of play and its spectatorial temporalities—and further detaching the game time from the spectator’s experience of the game—the instant replay has become a requisite component of both the play and spectatorship of sport.

As such, sport has become a natural locus for research on—and theoretical investigation of—the instant replay. Margaret Morse analyzes the differences between the experience of a stadium spectator and that of a television viewer. She notes the use of replay and multiple cameras to induce temporal alteration and compression of space, respectively.⁸ Garry Whannel discusses not only the transformation of time alluded to by Morse, but also what he terms the “spatial fragmentation” of sporting events, which television producers craft from their use of multiple camera angles and levels of zoom.⁹ He suggests that this fragmentation is a necessary byproduct of television’s transformation of sport into spectacle. This would seem to indicate that the use of crosscutting to imply the simultaneity of disparate actions, when combined with



Fig. 1. An NFL referee reviews a controversial decision by instant replay.

instant replay, redoubles the transformation of time and space. Barbra Morris, in her analysis of professional wrestling and basketball, argues that the replay serves as a “parenthetical phrase” in the liveness of television—it is an aside which functions as a means of both appreciation and analysis of a current text.¹⁰ As Morris argues, the instant replay operates as a form of “descriptive repetition” which forces the television viewer to shift from merely watching television to a more active mode of engagement.¹¹ For Morse, Whannel, and Morris, then, the instant replay marks a form of fragmentation—be it temporal, spatial, or textual.

However, despite this established theoretical

focus on sport as a means to examine the instant replay, its historical and technological development and adoption demonstrate the replay's measured reach into other discursive dominions. In asserting that "[m]ost viewers probably associate replay with 'non-serious' content on television," Morris suggests that the technique is generally leveraged during programming considered trivial and thus passes as insignificant. I would argue, however, that the replay has become an indispensable component in our experience of television and other media. To examine its influence today, it is useful to briefly consider the historical and industrial conditions which first engendered its rapid adoption into broadcasting. In conjunction with the rapid expansion in television broadcasting in the 1950s, a correlating need for content to fill the airwaves emerged. The expenses demanded by live broadcasting restricted the operation of stations to limited hours and similarly restrained the capacity of networks to broadcast across time zones. Aaron Nmungwun points to the research in recording technologies which sought to address a number of the problems inherent to television, including seeking "to delay broadcast of certain presentations to a more convenient time" (namely, to account for the 3 hour time difference between the East and West Coast markets); to "eliminate labor costs for night work"; to extend network programming to affiliates not connected by cable or radio relay; and for "postmortem" purposes to allow producers to see complete, finished work prior to its transmission.¹²

Facilitating the introduction of the instant replay, the rapid growth, expansion and proliferation of commercial television outpaced the fairly slow and limited technique of recording television with film.¹³ Instead, the broadcast industry turned to the successful and already established use of magnetic tape for recording audio and adapted the technology for the purposes of recording both sound and image. As a result of this research push, videotape recorder models began to reach network broadcasters in the mid-1950s. CBS became the first network to leverage the new technology for a time-delayed West Coast broadcast of its news program, "Douglas Edwards and The News" on November 30, 1956.¹⁴

Thus market and labor conditions in the



Fig. 2. November 24, 1963. The shooting of Lee Harvey Oswald.

television broadcasting industry in the 1950s encouraged the adoption of magnetic tape technologies, resulting in their widespread deployment and adoption by the early 1960s. Although it is most often associated with sport (and as indicated earlier, it was first implemented during the broadcast of sporting events), Erik Barnou supplies an interesting alternative for the popularization of instant replay, tracing its widespread use through the reporting of the murder of Lee Harvey Oswald in late 1963.¹⁵ The incessant replaying of this shocking event attests to the pervasiveness of magnetic technologies in news broadcasting as early as 1963. Moreover, the fact that this event is roughly concurrent with one of the earlier sports-broadcast uses of replay indicates that the instant replay resonated culturally far beyond the sports arena.

User-Controlled Replay

Since the 1970s, a growing number of consumer electronic products have placed increasingly greater degrees of replay control into the hands of the viewer, effectively transforming viewer into user and forever altering the experience of the moving image. As Anne Friedberg has indicated, the Video Cassette Recorder (VCR)'s capacity for playback, "significantly altered the terms of both televisual and cinematic viewing."¹⁶ By affording the user the power to record and playback video, Friedberg contends that the VCR introduced the potential to 'time-shift' by allowing the user to watch what she chooses at a time of her choosing

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and to re-watch films and programs as often as she likes. This capacity for active control of pre-recorded content (be it televisual or filmic) allowed users the capability to instigate their own replays; as such, the VCR represents an early instance of user-initiated and -controlled replay.

Vivian Sobchack argues that the technological innovations of film, video tape and electronic media have also effected a greater cultural and perceptual shift:

...although relatively novel as “materialities” of human communication, cinematic and electronic media have not only historically *symbolized* but also historically *constituted* a radical alteration of the forms of our culture’s previous temporal and spatial consciousness and our bodily sense of “presence” to the world, to ourselves and to others.¹⁷

Sobchack argues that these media forms have forever changed our understanding not only of media, but also of ourselves. Similarly, these comparatively nascent forms both *reflect* and *effect* significant shifts in aspects of our perceptual recognition and cognitive processing of space and time. As Sobchack contends, cinematic and electronic media have transformed not just our sense of presence, but our sense of presence “to the world.” I would argue that this shifting sense of presence is ongoing: as technologies such as the instant replay allow us greater—and more precise—control over our experience of media, they similarly alter our understandings of materiality

and bodily presence.

In her book *Death 24x a Second*, Laura Mulvey similarly suggests that the ability to control (specifically to pause with precision) both the image and story afforded by new media technologies such as DVDs and video recorders has fundamentally transformed our experience of film.¹⁸ Mulvey reasons that the “cohesion of narrative” of film is subjected to undue pressures by newer technologies which allow viewers to experience films in settings and under conditions quite removed from traditional theatrical exhibition practices (that is, viewers may no longer be in a darkened room and may be subject to any number of external distractions). In addition to engendering potentially distractional environments, Mulvey asserts that “digital spectatorship also affects the internal pattern of narrative: sequences can be easily skipped or repeated, overturning hierarchies of privilege, and setting up unexpected links that displace the chain of meaning invested in cause and effect.”¹⁹ Through their enhanced capacities for environmental flexibility and direct control of previously linear narratives, digital technologies therefore impose irrevocable challenges to film’s traditionally dominant narrative mode of sequentiality.

As both Sobchack and Mulvey distinctly illustrate, it is clear that such technologies have familiarized spectators with the active manipulation of formerly linear narrative forms. Similarly, the appearance of devices such as Digital Video Recorders (DVRs)—TiVo, for example—has altered the role of the television in the home and has given the user a greater and more direct degree of control of replay.²⁰ That the TiVo is essentially a computer running the Linux operating system also provides a clear confirmation of Ellen Seiter’s prediction, in 1999, that “Television sets and computer terminals will certainly merge, cohabit, and coexist in the next century.”²¹ William Boddy deftly investigates the early days of TiVo and other devices he terms PVRs (Personal Video Recorders) in his article “New Media as Old Media: Television.” Boddy suggests that DVRs/PVRs have “put into question traditional industry accounts of [television’s] role as signifier of national identity (i.e. the BBC), its ontology of liveness and photographic realism and its place as a consumer



Fig. 3. Detail of a TiVo controller with instant replay button.

product within the gendered household.”²² These devices actively and digitally record “live” television, allowing the user to instantly and precisely “pause” and “rewind” what she watches—much like a VCR, but without cumbersome electromagnetic cassette system used in the VCR.²³ The remote control for the TiVo includes an instant replay button, which will automatically “jump” the user back three seconds in her program; an advertisement for TiVo proclaims, “Instant replay in the palm of your hand!” Similarly, digital cable services such as OnDemand allow users to stream or download programs from a central video computer server to their television and typically feature pause, rewind and fast-forward capability. All of these devices indicate a fundamental shift in both televisual and cinematic viewing practices, with replay as a central unifying and structuring logic. The instant replay has thus become a pivotal and implied component of our televisual experience; the capacity to actively and instantly rewind and replay portions of programming—even that which is “live”—is becoming both a familiar feature of the remote control and a requisite attribute of the server-based distribution of programming. This user-controlled deployment of programming has already begun to affect conventional broadcast strategies (such as HBO’s offering of new episodes of shows a week before their broadcast) and may soon replace them altogether.

These recent digital technologies can be seen as direct challenges to Raymond Williams’s notion of “flow,” and their basis in early magnetic recording equipment indicates that a discussion of the instant replay necessitates a re-consideration of Williams. In his seminal book *Television: Technology and Cultural Form*, Williams argues that the experience of television is characterized by the concept of flow. He suggests that early television broadcasts were marked by their intervallic nature—programming was broken up into discrete units that were often separated by pauses, during which time the station might broadcast a sound or image (such as the BBC’s spinning globe) to indicate that the broadcasting service remained active.²⁴ However, as a result of the commercial nature of much of more recent television broadcasting, television is marked by a continuous flow of images and sounds, as programming and

commercials stream in an uninterrupted fashion: “There has been a significant shift from the concept of a sequence as *programming* to the concept of sequence as *flow*.”²⁵ Thus what was once marked by distinct programming units with intervals is now an incessant stream. For Williams, “flow” names television’s sense of the perpetual now—its means of keeping the viewer’s attention from moment to moment and from program to program. Indeed, it might be considered the stream of television’s consciousness.

Duration, Memory, and the Replay

Williams’s concept immediately recalls Henri Bergson’s notion of “duration” as our perceptual and intuitive experience of the continuous flow of time. While science and culture insist upon structuring and organizing time into discrete units such as seconds and years, Bergson instead asserts that our temporality is marked by its constancy and continuity: *durée*. Bergson’s theoretical approach is particularly constructive in an analysis of the replay as his examination of perceptual experience is uniquely analogous to several key considerations of television’s ontology. For instance, Herbert Zettl argues that the very essence of the physical apparatus of television is one of motion and a state of becoming; unlike film, television constantly rescans its image into the camera and redraws this image onto the screen:

While in film each frame is actually a static image, the television image is continually moving, very much in the manner of the Bergsonian *durée*. The scanning beam is constantly trying to complete an always incomplete image. Even if the image on the screen seems at rest, it is structurally in motion. Each television frame is always in a state of becoming. While the film frame is a concrete record of the past, the television frame (when live) is a reflection of the living, constantly changing present. The live televised event and the event itself exist in the same present. This is impossible with film.²⁶

Thus while the cinematic apparatus is characterized

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by its sequencing of still images, the televisual image is constantly in a “state of becoming” as it is created upon the screen. The notion of television’s flow might thus be applied to an even more elemental level than the base level “succession of words and images” that Williams suggests—television, in its mere technological function, literally flows across the screen as it is drawn in a constant state of becoming—not so much a “succession” as a true continuum of sound and image.

Linked to the televisual image’s mode of inscription—understood here as perpetual and invariably transformative—is an issue at the heart of television’s ontology: the indexicality of its relationship to that which it records. Jane Feuer contrasts Zettl’s observation about its continual state of becoming with André Bazin’s assertion that “photography enjoys a certain advantage in virtue of its transference of reality from the thing to its reproduction.”²⁷ Feuer suggests that Zettl’s argument invokes Bazin’s belief in film’s reproductive qualities of reality: “Zettl’s phenomenology of cinema echoes Bazin’s ‘realist’ ontology without admitting, as Bazin does, that ‘realism’ is based on artifice.”²⁸ But regardless of the differing means by which the television and cinema transfer and construct their images, Zettl contends persuasively that at the heart of television’s mode of expression is its capacity for instantaneity and liveness.²⁹ Thus while film and television both are moving image technologies with the capacity to “transfer reality,” the necessary gap between film’s production and exhibition mean that the cinema can never display a live image.

Feuer thus builds from Zettl and asserts that television embraces its capability to broadcast and depict live events. But for Feuer, television is rarely truly live—instead, she proposes that, “Television’s self-referential discourse plays upon the connotative richness of the term ‘live,’ confounding its simple or technical denotations with a wealth of allusiveness.”³⁰ Feuer argues that rather than true liveness, an ideology of liveness permeates television: while television constantly insists on the appearance of being live, in actuality it relies on segmentation and narrativization. As a result of this segmentation, Feuer takes direct issue with Williams:

Yet “flow” as Williams describes it is pure illusion. It would be more accurate to say that television is constituted by a dialectic of segmentation and flow... unlike narrative cinema, segmentation is already a property of the text. Williams should more accurately say that television possesses segmentation without closure, for this is what he really means by “flow.”³¹

For Feuer, television’s ideology of liveness relies on an interplay between the segmentation of programs into discrete units (which she emphasizes in her essay) and Williams’s “flow.”³²

This relationship between segmentation and flow is also characterized by the instant replay—as Morris suggests, the instant replay marks a fragmented interruption or aside to the flow of live television. The association linking segmentation to flow also recalls Bergson’s concept of duration, in which he suggests the immeasurability of the lived experience of time. Bergson argues that while science strives to quantify spatiality and temporality into discrete units—kilometers and inches, hours and seconds—our consciousness is instead defined by the continuous and heterogeneous flow of both space and time.

It should be noted, however, that for Bergson our conceptions of time and space are by no means absolute. He also asserts that consciousness must perform necessary processes of selection and filtering to properly parse essential information for the mind:

In one sense we might say that the perception of any unconscious material point whatever, in its instantaneousness, is infinitely greater and more complete than ours, since this point gathers and transmits the influences of all the points of the material universe, whereas our consciousness only attains to certain parts and to certain aspects of those parts. Consciousness—in regard to external perception—lies in just this choice. But there is, in this necessary poverty of our conscious perception, something that is positive, that foretells spirit: it is,

in the etymological sense of the word, discernment.³³

This process of discernment effects a “necessary poverty” of consciousness—we are only acutely aware of the most relevant pieces of sensory data. The same could be said of the replay—by necessity, the replay is confined to the medium in which it functions. The television replay does not replay anything external to the television broadcast, of course. As such, the instigator of the replay—be it a television producer or a TiVo user—similarly exercises a degree of discernment through the processes of selection exercised to privilege certain moments and sequences over others. This privileging in turn may resonate culturally as well—consider the familiarity of sequences such as Lee Harvey Oswald’s assassination or the more recent “wardrobe malfunction” of Janet Jackson at the Super Bowl.³⁴ Furthermore, this demarcation and containment of a given time and space evokes something of a “necessary poverty.” In this sense, the replay’s *discernment* exposes the specificities of the medium—that is, the constitutive elements which define it and differentiate it from other forms but also its obsessions, preoccupations and traumas.³⁵ Through processes of selection, the television replay allows its viewers to fixate on specific moments and sequences as it replays them repeatedly, privileging these occurrences

over others in an unrelenting stream; similarly, Bergson defines our capacity to function in the present with an overwhelming amount of external stimuli and past memories as a product of processes of discernment. Thus, much like specific elements of our conscious experience and memory are favored at particular moments (i.e. our focus upon the consecutive words on a page when reading and their relationship to both our memories of the text and personal experiences), the instant replay selectively concentrates the viewer’s focus upon certain limited portions of the televisual text’s past. In this sense, the replay functions in a fashion akin to Bergson’s discernment, as these moments and sequences are purposely differentiated from television’s continuous flow. The replay insists upon its own import amongst a stream of comparatively inconsequential information.

The instant replay functions as a repetition within the program itself, and through its privileging of a specific section of a broadcast, it further enhances this portion of programming. That is to say, by replaying a particular sequence, the instant replay often divulges information which was previously hidden or unknown. New details are often revealed to the viewer—particularly when new camera angles or effects such as slow motion are employed—essentially broadening the experience and appreciation



Fig. 4. February 1, 2004. Janet Jackson (left) and Justin Timberlake perform what would become “the most TiVoed moment” in history.

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of the given sequence. The instant replay may allow an individual to re-view a previously-experienced moment, but, as suggested by Bergson's explication of the way we conceive of duration, a replay is not a true repetition:

Now, if duration is what we say, deep-seated psychic states are radically heterogeneous to each other, and it is impossible that any two of them should be quite alike, since they are two different moments of a life-story. While the external object does not bear the mark of the time that has elapsed...duration is something real for the consciousness which preserves the trace of it, and we cannot here speak of identical conditions, because the same moment does not occur twice.³⁶

Given our ontological status as constantly changing beings, we can never truly re-experience something as the first time. The implications for the replay are evident: though replay may represent a precise repetition of a given previous experience, our current state has already been shaped by that previous experience. When a replay occurs, our experience and consciousness are certainly not a constant: each iterative experience of a replay affects our experience and perceptual understanding of the world—the replay effectively recursively redefines our consciousness. “That under the influence of the same external conditions I do not behave to-day as I behaved yesterday,” Bergson comments, “is not all surprising, because I *change*, because I *endure*.”³⁷ Thus, because we constantly change, we will always experience each moment differently (even if only minutely so)—even under the same circumstances. And because the replay is a repetition of something we have already experienced, our re-experiencing of that sequence has unavoidably been fashioned by our previous experience of the sequence. The replay thus iteratively and recursively re-defines our experience of a given sequence—it is at once very much a part of the flow of television, yet

is also a disruptive break in its passage. In this sense, Bergson's notion of duration is essential in this consideration. While the replay may mark a rift in television's flow, it concurrently functions as an uninterrupted element in our experience of television's succession of sounds and images. The replay thus enhances our experience of television, adding a dimension to television's “duration” by facilitating our re-consideration of its content. Furthermore, the instant replay compels television to function more like the process of our own perception and memory; it operates in a capacity markedly similar to Bergson's intuitive understanding of the interrelation between past and present. Just as our present perceptions and stored memories interact and feed into one another, the replay's constant engagement with the historical and the ongoing evinces its unique relationship with both—as well as its analogous connection to our own perceptual and cognitive functioning.

The instant replay functions in multiple registers. While inherently based in the magnetic and digital technologies which have engendered its usage, its practice is increasingly prevalent in our everyday lives and our lived experiences. As technologies which incorporate the instant replay become more common in our experience of television, our understanding of television must necessarily shift. Just as DVRs and similar technologies call into question some of our long-held ontological and industrial beliefs about television, the instant replay also demands a closer examination and reconsideration of our perceptual experience of television's duration. The replay demonstrates that television is no longer characterized purely by its flow or its liveness, but is also now marked by its selective fragmentations and segmentations, privilegings and repetitions. As such, some of the mostly closely-held and long-standing theoretical approaches to television may be prone to reconsideration—and a closer examination of our perceptual experience of television seems to be a promising place to start.

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Notes

1 It should be noted that an instant replay is known as an “action replay” in some countries, including the United Kingdom. While each term clearly carries different connotations, they should be considered interchangeable for the purposes of this article.

2 Erik Barnou, *Tube of Plenty: The Evolution of American Television*, 2nd ed. (New York: Oxford University Press, 1990), 347–8.

3 Peter B. Orlik, *Hockey Night in Canada* ([cited October 13 2007]); available from <http://www.museum.tv/archives/etv/H/htmlH/hockeynight/hockeynight.htm>.

4 Other early instant replay systems such as the Ampex HS-100 employed a disk-based system similar to a phonograph to record up to 30 seconds of footage.

5 Brad Schultz, *Sports Broadcasting* (Woburn: Focal Press/Butterworth-Heinemann, 2002), 11.

6 Professional tennis offers another more recent example of incorporating replays into official rules, adding the ability for players to challenge on-court rulings in 2006. The instant replays used in tennis are not video-based, however. Instead they are three-dimensional recreations of the ball’s movement recorded by sensors and rendered as a computer simulation.

7 For more on the video screens used in stadiums, see Greg Siegel, “Double Vision: Large-Screen Video Display and Live Sports Spectacle,” *Television and New Media* 3, no. 1 (2002).

8 Margaret Morse, “Sport on Television: Replay and Display,” in *Regarding Television*, ed. E. Ann Kaplan (Los Angeles: American Film Institute, 1983), 48.

9 Garry Whannel, *Fields in Vision: Television Sport and Cultural Transformation* (New York: Routledge, 1992), 97.

10 Barbra S. Morris, “Reading Replay In ‘Live’ Television Text,” *Journal of Popular Culture* 20, no. 4 (1987): 149 & 52.

11 *Ibid.*: 154.

12 Aaron Foisí Nmungwun, *Video Recording Technology: Its Impact on Media and Home Entertainment* (Hillsdale, NJ: L. Erlbaum Associates, 1989), 100.

13 *Ibid.*, 112.

14 *Ibid.*, 131.

15 Barnou, *Tube of Plenty*, 347–48.

16 Anne Friedberg, “The End of Cinema: Multimedia and Technological Change,” in *Film Theory and Criticism: Introductory Readings*, ed. Leo Braudy and Marshall Cohen (New York: Oxford Press, 2004), 915.

17 Vivian Sobchack, “The Scene of the Screen: Envisioning Cinematic and Electronic ‘Presence,’” in *Electronic Media and Technoculture*, ed. John Thornton Caldwell (New Brunswick, New Jersey: Rutgers University Press, 2000), 137.

18 Laura Mulvey, *Death 24x a Second* (London: Reaktion Books Ltd., 2006).

19 *Ibid.*, 28–29.

20 William Urrichio provides a useful historical context for this change with tracing of the technological development of television. See William Urrichio, “Old Media as New Media: Television,” in *The New Media Book*, ed. Dan Harries (London: The British Film Institute, 2002).

21 Ellen Seiter, “Television and the Internet,” in *Electronic Media and Technoculture*, ed. John Thornton Caldwell (New Brunswick, New Jersey: Rutgers University Press, 2000), 228.

22 William Boddy, “New Media as Old Media: Television,” in *The New Media Book*, ed. Dan Harries (London: The British Film Institute, 2002), 242.

23 In an interesting development, a number of television commercials have appeared that employ the DVR or its interface. In a series of “DVD Ready” Sprite advertisements, “hidden” messages appear for a frame or two, encouraging the user to pore over the commercials frame-by-frame to “win” free soda. Other ads depict an artificial DVR interface to simulate a user rewinding to watch the commercial again.

24 Raymond Williams, *Television: Technology and Cultural Form*, 2003 ed. (New York: Routledge, 1974), 83–84.

25 *Ibid.*

26 Herbert Zettl, “The Rare Case of Television Aesthetics,” *Journal of the University Film Association* 30, no. 2 (1978). As quoted in Jane Feuer, “The Concept of Live Television: Ontology as Ideology,” in *Regarding Television*, ed. E. Ann Kaplan (Los Angeles: AFI, 1983), 13.

27 André Bazin, “The Ontology of the Photographic Image,” in *What Is Cinema?, Vol I*, ed. André Bazin (Berkeley: University of California Press, 1967), 14.

28 Feuer, “Live Television” 13. While Zettl may overlook this aspect of the transference of “reality,” Steve Lipkin supplies a closer reading of the applicability of Bazin’s theory to televisual images. Lipkin argues that television and video are more akin to painting than film in their televisual electronic and “automatic” mediation of the image, as compared to film’s photochemical processes. See

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Steve Lipkin, "Technology as Ontology: A Phenomenological Approach to Video Image Resolution," *Quarterly Review of Film and Video* 12, no. 3 (1990).

29 Zettl, "The Rare Case of Television Aesthetics." As quoted in Feuer, "The Concept of Live Television: Ontology as Ideology," 13.

30 Feuer, "The Concept of Live Television: Ontology as Ideology," 14.

31 *Ibid.*, 15-6.

32 It should be mentioned that Derek Kompare has demonstrated the economic importance of the industrial practice of rerun syndication (and more recently, packaging television onto DVDs) as an essential factor of television production and broadcasting. His work evinces that significant portions of programming is reruns, further underscoring Feuer's notion of segmentation. See Derek Kompare, *Rerun Nation: How Repeats Invented American Television* (New York: Routledge, 2005).

33 Henri Bergson, *Matter and Memory*, trans. N.M. Paul, 1990 ed. (Brooklyn, New York: Zone Books, 1908), 38.

34 It should be noted that TiVo issued a press release in the weeks following the Super Bowl, identifying the Miss Jackson sequence as the "most TiVoed moment" in history. This statement inadvertently revealed the degree to which TiVo monitors and tracks user statistics, somewhat undermining their image. See Paul Bond, "Tivo Bares Facts on Instant Replay," *Hollywood Reporter — International Edition* 382, no. 21 (2004).

35 That is to say, that which constitutes a replay in television is quite different than that which defines a replay in film or in interactive media. But an examination of the meaning of replay in these and other forms is beyond the scope of this essay.

36 Henri Bergson, *Time and Free Will: An Essay on the Immediate Data of Consciousness*, 2001 ed. (Mineola, New York: Dover Publications, 1913), 199-200.

37 *Ibid.*, 209.