

The Politics of Timeshifting (2011)

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"The politics of timeshifting," refers to the appearance of practical magnetic video recording and the technical, commercial, and aesthetic reconfigurations that accompanied its widespread adoption. Though videotape entered the American market as a practical solution to the well-established challenge of transcontinental broadcasting, the earliest video recorders were already imagined to offer a potentially radical reorganization of television, including greater control over the labor, production schedules, and repeat broadcasting of programming, and a higher fidelity to the original broadcast material. Moreover, within a decade of its introduction, the politics of timeshifting had been transposed from the large-scale, bureaucratic concerns of broadcast timing, to the microscale analysis of movement and space in the form of the "instant replay."

My history begins with the initial attempt to synchronize television time with "clock time."¹ In the 1950s, broadcast time was divided for purposes of television standardization as the commercial pressures of television management pushed the broadcast networks toward more localized experiences of time, so that the uniform, national audience was in fact a series of smaller, subdivided audiences.² Just as national borders constrain the flow of information because of conflicts between rights holders, American TV networks had long attempted to maintain programming continuity across time zones to make the sale of audiences to advertisers predictable and commensurable. Thus, the networks divided their broadcast territory into time blocks, used to delay broadcasts and to deliver roughly equivalent viewership percentages.³ This form of timeshifting was sanctioned by the exigencies of capitalism—exigencies that always compromised any notion that television was a fundamentally "live" medium before it was a timeshifted one.

In mobilizing videotape technologies, networks and electronics manufacturers appealed to a particularly postwar, capitalist logic of efficient distribution—prerecord a surplus of content and distribute as needed—which was a proxy solution to a number of economic, aesthetic, and social challenges associated with the centralized process of transcontinental broadcasting. The alignment of an apparent need for efficiently distributed, higher quality TV recordings, aligned with the ideological view that American television networks were crucial to maintaining national unity.⁴

In future decades, the VCR, PVR, and other forms of personally timeshifting television content—so that it fit with one's own rhythms and tempos of labor and leisure time—were met with fierce pushback from American networks, and often supported by state regulations on the appropriate uses of personal recording. Such attempts to limit the timeshifting of content are an act, by property holders, to maintain what Slack and Wise call *social space*, "the production of social relations over time,"⁵ including, in this case, the social relations compelled by predictable and commodifiable exposure to advertising. Timeshifting the flow of television programming threatened the social contingency of infrastructural space by threatening the consistent flow of commodities.

In other words, the personal video recorder did not compromise the "liveness" of television alone; liveness was always already a fantasy, and compromised by the imperatives of creating demographically similar—and commercially interchangeable—audiences across time zones. *It was less important to have live programming than it was to have a live audience.* From the beginning, timeshifting mutated the flow of programming as a principally commercial activity. [. . .]

There are many genealogies of videotape, including kinescope recording, stop-motion photography, and magnetic audiotape. The latter is the most prominent in the commercial and engineering historiography, and long before videotape debuted there had been widespread interest in adapting the techniques of magnetic audio recording for use in video.⁶ In the standard story the Ampex Corporation, having developed German Magnetophon technology into the first commercially practical audiotape recorders,⁷ finally adapted these same principles to develop the first broadcast-quality television videotape recorder.⁸ The central affordance of magnetic tape recording over its alternatives (film, wax, shellac, and vinyl) is "instantaneous recording," which makes recorded content available for playback *as it is recorded*. This affordance comes from the concentration of recording and playback functions in a single set of mechanisms. There were enormous commercial implications of this concentration of mechanism, as the temporal shift of instantaneity closed the gap between the time a program was performed and when it was ready for broadcast and rebroadcast. This signaled a significant acceleration in the production of television commodities. Beyond commodification, however, the temporal dynamics of instantaneous recording provoked aesthetic, economic, and social consequences across television industries, and seeped into the corners of public life.

One of the longest lasting and most conspicuous artifacts of videotape's timeshifting potential is the "instant replay"—the immediate reuse of video content meant for close analysis. Here, I focus on instant replay as an example of operational aesthetics⁹ where the otherwise invisible fact that a program is recorded becomes visible, and transforms a practice of (micro) timeshifting as an experience of aesthetic appreciation and, eventually, empirical scrutiny. Though the instant replay is strongly associated with sports broadcasting, a prototypical form of the replay was present from videotape's earliest days and the first subject of video recording, and replay, was the television industry itself. Videotape was introduced by Ampex at the National Association of Radio and Television Broadcasters convention in 1956. In the engineering and corporate mythology, the demonstration of the VRX-1000 was revelatory. One of the attendees of the demonstration describes in vivid detail the uncanny moment of recognition that followed the appearance of a replay:

Well, the first thing we knew, after a brief introduction from Bill, we were looking at pictures of ourselves on the monitors not only taken just seconds before, but of a quality that was hard to realize was actually electronically duplicated and not "live." It took a few seconds before we realized the significance of what we had seen, and then, for all the world like a football crowd cheering Doak Walker or Bobby Layne trotting off the field after the winning touchdown, the entire audience rose to its feet and applauded spontaneously.¹⁰

This quote handily foreshadows the central place sports replays would later come to occupy in the thematization of video recording, and also echoes other moments of uncanny recognition that are a standard feature of media history.¹¹ When a replay interrupts the linear time of television broadcast, the stuttering flow of television exposes the cracks in the (apparent) liveness of the television signal, and reveals the structure of an always timeshifted medium. When, a year after this demonstration, during President Eisenhower's second inauguration the networks replayed his oath of office, it supposedly startled at-home viewers who felt a similar uncanniness in response to a video signal that was both *live* and *not-live*.¹²

Despite or in spite of the uncanniness of the replay, Ampex vastly underestimated the demand for video recorders and, relative to their eventual success, invested little in developing the technology. Ampex had anticipated sales of around two dozen machines over the first four years but by 1960 had sold 550 machines to networks, individual stations, and private firms interested in the possibility of instantaneous recording.¹³ Within a decade, video recorders and replay were adapted to a wide and diverse set of applications from law enforcement and psychiatric care to industrial training, personal development, and every facet of television production.¹⁴ The question is, then: Was Ampex merely poor at judging the "desire" for a magnetic tape recorder, or did the VRX-1000 and subsequent recorders manufacture a demand for video-based practices?

Perhaps one reason for Ampex's own skepticism was the fact that early video recording was an expensive and finicky practice. Not only were the machines prohibitively expensive for small outfits, they were equipped with several sets of temperamental vacuum tubes necessary to attain the precision required for broadcast-quality video. Early machines were also highly idiosyncratic and videotapes were machine-dependent. With early machines, each recorder had slight variations in how it guided the magnetic tape and recordings could only be played back on the same machine on which they were recorded: "If a show had to be held for a long time . . . CBS stored the heads with the tapes and hoped for the best."¹⁵ Use of the medium as a long-term storage technology was far off but this machine-tape symbiosis may have helped foreclose the archival potential of videotape. Early recording for playback was thus a machine-localized practice, a fact that vanished during broadcast, when the infrastructure of recording and playback were camouflaged. [. . .]

Thus, the politics of timeshifting conditioned television from the top down, as the ability to easily timeshift programming altered the economics and logistics of TV production; they also mutated the aesthetics and experience of television from the bottom up, as the instant replay became a ubiquitous aspect of the television viewing experience, even while broadcasters continued to efface the use of tape in the maintenance of the illusion of liveness. Liveness was a hallmark of the nationally united audience.¹⁶ Liveness as an ideology depends also on the constant "flow" of programming,¹⁷ and on the perception that "the text issues from an endless supply that is sourceless, natural, inexhaustible, and coextensive with psychological reality itself."¹⁸ But videotape animated a paradox of television, where the illusion of a coherent, live experience was regularly interrupted by the technological apparatus, and the stuttering of the televisual timeline.

Videotape's instant-access temporality fit with the corporate striving for accelerated and centralized television production in the conjuncture of the 1950s. By the early 1960s, circumstances would change, and the mediation of the video recorder would appear on television as an aesthetic trope for the representation of time and action in the form of the instant replay. Eventually, instant playback became a codified, standardized, and preferred technique of observation, evidence production, and judgment.

From the chapter "The Politics of Timeshifting" in Dylan Wesley Mulvin, "Human Eye Inadequate": Instant Replay and the Politics of Video, master thesis (Montreal: McGill University, 2011); excerpted and adapted for the present publication by the author.

Notes

- 1 Eugene Marlow and Eugene Secunda, *Shifting Time and Space: The Story of Videotape* (New York: Praeger, 1991).
- 2 Jonathan Sterne, "Television under Construction: American Television and the Problem of Distribution, 1926–1962," *Media, Culture & Society* 21, no. 4 (1999).
- 3 William Lafferty, "A New Era in TV Programming' Becomes 'Business as Usual': Videotape Technology, Local Stations, and Network Power, 1957–1961," *Quarterly Review of Film and Video* 16, no. 3 (1997).
- 4 *Ibid.*, 4.
- 5 Jennifer Daryl Slack and J. Macgregor Wise, *Culture + Technology: A Primer* (New York: Peter Lang, 2005), 136.
- 6 Lucas Hilderbrand, via Roy Armes, argues that videotape's specificity as a medium is more closely aligned with the history of audio than that of cinema or photography. See Hilderbrand, *Inherent Vice: Bootleg Histories of Videotape and Copyright* (Durham: Duke University Press, 2009); Roy Armes, *On Video* (London and New York: Routledge, 1988); Frederick M. Remley, "The Challenge of Recording Video," in *Magnetic Recording: The First 100 Years*, ed. Eric D. Daniel, C. Denis Mee, and Mark H. Clark (New York: IEEE Press, 1999).
- 7 Beverley R. Gooch, "Building on the Magnetophon," in *Magnetic Recording: The First 100 Years*, 82–9. By 1950, Ampex was the number-one producer of audio recorders.
- 8 Remley, "The Challenge of Recording Video."
- 9 Operational aesthetics, as Neil Harris describes it, refers to "a delight in observing process and examining for literal truth." Neil Harris, *Humbug: The Art of P.T. Barnum* (Boston: Little, Brown, 1973), 79.
- 10 Attendee, quoted in Jeff Martin, "The Dawn of Tape: Transmission Device as Preservation Medium," *Moving Image* 5, no. 1 (2005), 53.
- 11 Jeffrey Sconce, *Haunted Media: Electronic Presence from Telegraphy to Television* (Durham, NC: Duke University Press, 2000).
- 12 Laurence Laurent, "Viewers Startled by Tape's Quick Repeat," *The Washington Post*, January 22, 1957.
- 13 Lafferty, "A New Era in TV Programming' Becomes 'Business as Usual.'"

- 14 See Dylan Mulvin, "Game Time: A History of the Managerial Authority of the Instant Replay," in *The NFL: Critical and Cultural Perspectives*, ed. Thomas P. Oates and Zack Furness (Philadelphia: Temple University Press, 2014), 40–59.
- 15 Martin, "The Dawn of Tape," 56.
- 16 Jane Feuer, "The Concept of Live Television: Ontology as Ideology," in *Regarding Television: Critical Approaches*, ed. E. Ann Kaplan (Frederick, MD: University Publications of America, 1983).
- 17 Here I mean the second of the three senses of "flow" elucidated by Williams: "Flow of this second kind, however, is centrally important in our experience of television, since it shows, over a sufficient range, the process of relative unification, in a flow, of otherwise diverse or at best loosely related items." Raymond Williams, *Technology and Cultural Form* (New York: Schocken Books, 1974), 97.
- 18 Beverle Houston, "Viewing Television: The Metapsychology of Endless Consumption," *Quarterly Review of Film Studies* 9, no. 3 (1984), 184.