New Media as Old Media: Television

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The transition from analogue to digital television in the US and elsewhere since 1998 has provoked widespread predictions of fundamental change in moving-image culture, including forecasts of the slow death not only of commercially supported network television, but also of the entire economic and cultural logic of mass marketing that has supported commercial broadcasting for half a century. The technological promise of digital television, in the form of higher-definition images, greater bandwidth and interactive services, has thrown into crisis, or at least historiographic relief, long-established industry practices, business relationships and textual forms. The uneven adoption of digital technologies across the fields of consumer electronics, programme production and delivery systems has exposed new fissures among sectors of the television industry and brought new economic players into the business, in the form of both start-ups and well-established firms, with significant amounts of venture capital being raised even in the wake of the collapse of dotcom share prices on Wall Street.

The current uncertainty has also put into question traditional industry and popular accounts of the medium's role as signifier of national identity (and public service broadcasting's political rationale in the UK and elsewhere), its ontology of liveness and photographic realism and its place as a consumer product within the gendered household. One place where these shifting scenarios of identity and utility are enacted is the ephemeral 30- and 60-second commercials for a range of emerging digital television products and services, including high-definition television receivers, personal video recorders and interactive television services. While some of the recent digital television consumer products and technologies, like the hugely successful DVD player, fit comfortably within already-established business models and viewing practices, others, notably the personal video recorder and virtual advertising, are seen by many within the industry as potentially disruptive of the medium's established textual and economic practices. In the eyes of at least some observers, who evoke the full convergence of the television set and home computer, digital technology will thoroughly transform the television industry, its programming and advertising practices, and the position and function of the apparatus in the home.

The network television industry has reacted with ambivalence to the transition to digital television and to the wider reconfiguration of the medium's role in American society. While
the modest fortunes of high-definition television since its public launch at the end of 1998 have underlined the distinct interests of consumer electronics manufacturers, broadcasters and cable operators, it has been the prospect of the wide diffusion of hard drive-based personal video recorders that has provoked the greatest anxiety among broadcasters and advertisers, and the most extravagant visions of a moving-image landscape altered almost beyond recognition by smart television sets and empowered viewers. I would like to address some of the early, often highly speculative, responses to digital television and to identify the ways in which the move to digital technologies has already altered some widely shared cultural and economic assumptions about the medium.

THE CONTEXT FOR THE TRANSITION TO DIGITAL TELEVISION

It is important first to note the unusual historical circumstances in which the US television industry is confronting the transition to digital television. The long-term decline in network audience share as the result of an increasingly fragmented television audience (a decline mitigated in the 1990s by a strong advertising economy and more recently by the spectacular success of a few prime-time network programmes, including *Who Wants to Be A Millionaire?* and *Survivor*), has thrown into crisis the perennially disputatious economic relations between networks and their affiliates, advertisers and programme producers. The continuing consolidation of television station ownership into ever-larger chains, fuelled by permissive federal regulators, has alarmed network leaders who have long envied the more stable and substantial profit levels of station owners. On the other hand, affiliates, facing networks that are increasingly merely parts of larger media conglomerates with interests in cable, satellite and Internet platforms, worry that their status as the dominant delivery vehicle for television programming is in jeopardy. The economic foundation of the network-affiliate relationship, the networks' payment of compensation to stations in return for affiliate airtime, is under concerted network attack; these efforts have provoked a number of group owners to launch a regulatory challenge to network business practices, provoking in turn two networks to withdraw from the National Association of Broadcasters in retaliation. The uncertainty about the long-term viability of the fundamental economic premises of a half-century of American commercial television has made the networks extremely sensitive to the perceived threat of the personal video recorder, which, they worry, would allow massive numbers of households to avoid exposure to television commercials.

Other, more short-term developments within the industry have also affected the way in which new digital technologies have been perceived. At the end of the 1990s, the US networks, faced with escalating programme licence fees for star- and writer-producer driven prime-time dramatic programming, have embraced a range of inexpensive 'reality TV' formats, often with spectacular short-term financial results. In addition, the threatened Hollywood talent strikes in the middle of 2001 encouraged a substantial stockpiling of such scriptless and actor-free programming before the 2001–2 season. Coincidentally, it is precisely these non-traditional entertainment formats that have been viewed as best suited for
the design of integrated interactive features and intensive product placement, encouraging networks to explore these applications of digital technology.

Meanwhile, the bursting of the dotcom speculative bubble and the precipitous cooling of the national advertising market at the beginning of 2001 brought the first decline since 1974 in the so-called up-front network television market, where networks solicit spring commitments from advertisers for the forthcoming autumn television season. The decline in network advertising has made the networks fearful of any erosion of their audience figures at the hands of the television-commercial evading personal video recorder and extremely eager to work with advertisers on forms of advertising which would be impervious to such technological agents, including sponsorship, product placement and other forms of 'embedded commerce'.

Finally, events in the US computer and consumer electronics industries have also shaped the short-term economic prospects for enhanced digital television products and services. The New York Times in late May 2001 reported the first ever decline in the number of residential Internet customers, following the extinction of several free ISPs; the same newspaper reported that US personal computer sales actually shrank in the previous two quarters. Meanwhile, prospects for continued high levels of spending in the consumer electronics and computer technology sectors appear dim; as one observer put it in the spring of 2001: "It's a truly disquieting moment for the sellers of technology. They're in the difficult position of trying to unload a trunk full of cheesecakes in the parking lot of an all-you-can-eat restaurant." Previous growth forecasts of the entire range of interactive and digital television products and services will need to be put in a new context of falling consumer confidence and technology share prices, restricted access to venture capital for start-ups and a slowing advertising market.

THE BUSINESS FORTUNES OF THE PERSONAL VIDEO RECORDER

Notwithstanding the early optimistic predictions of personal video recorder sales and the alarmist claims of the destabilising effect of the device's ability to evade commercials, sales of the devices were modest throughout most of 2001. As the Washington Post noted in April 2001: 'In 1999, Boston-based Forrester Research predicted that 50 million homes would have DVRs by 2005. Fewer than 300,000 have sold so far.' By October 2000, weak sales forced ReplayTV, whose earlier plans for a $119 million initial public offering were abandoned by the sell-off in technology stocks, to withdraw from manufacturing stand-alone personal video recorders altogether, in favour of attempting to license its technology for integration into other consumer devices, from cable boxes to DVD players and television sets. In February 2001, after failing to attract additional private capital, ReplayTV was acquired by Sonicblue, the maker of the Rio MP3 player, in a stock swap valued at $120 million; as ReplayTV's vice president for marketing confessed to the Washington Post: 'It certainly is not the billions of dollars we were calculating a year ago.' In April 2001, ReplayTV's rival TiVo announced that it intended to lay off 25 per cent of its staff and pare its marketing
expenditures in order to cut overall expenses by 35 per cent; at the same time, TiVo also raised its lifetime subscription fee by 25 per cent. Meanwhile, by the spring of 2001, TiVo stock was trading as low as $4, down from its previous high of $78 in June 2000; as TiVo's chief technology officer admitted in April 2001: 'As we ramped up our distribution and marketing, we all came to the realization that it is going to be harder than we thought.' The Washington Post quoted one stock analyst of the personal video recorder business: 'We've switched from this euphoria surrounding the potential to a lot of doubt,' and one April 2001 survey of six financial analysts following TiVo noted that only one of them 'is rating the company higher than a "hold".' A senior vice president at Thomson electronics told a journalist in December 2000 that 'we still have a lot of questions about that [stand-alone PVR] category because the model is very, very difficult.... All of those [stand-alone] products are subsidised to some extent, and it is still pretty open as to whether the revenue streams would really be out there long term to maintain that business model.'

With personal video recorder sales much slower than earlier optimistic predictions, the device's anticipated effect in depressing the viewing of television commercials has been small to non-existent through the middle of 2001. While Forrester Research in January 1999 predicted that within ten years personal video recorders would be in 82 million homes and that the number of television commercials actually watched by viewers would be cut in half, many in the field are skeptical of the device's impact on advertising practices. One media sales executive told Broadcasting and Cable in February 2001: 'The impact right now is negligible. There are hardly enough boxes out there now to start a trend. It's really not even enough to experiment with.' In January 2001, the Financial Times noted that TiVo executives, faced with slow personal video recorder sales, were now 'keen to pull back from the dire predictions that were being made about TiVo's impact on commercial broadcasting. Now the stress is very much on what the machines can offer broadcasters...'; including fuller use of late-night time slots. In fact, TiVo's accommodation to broadcasters and advertisers began with the original design of the unit's remote control features; unlike its rival ReplayTV, according to TiVo Entertainment Group's publicity material aimed at potential advertising partners, 'TiVo chose not to offer a skip button, which would eliminate the informative value of advertising. We will work with you to create advertising content that is most effective in a fast-forward environment.'

This ambivalence on the part of TiVo is also expressed in the company's own television advertising. As one journalist noted, 'the problem facing the industry goes to the core of the clever, yet ambiguous, TiVo television ads that seem to encourage viewers to zap ads that they don't want to see. TiVo touts its value to the advertising community, while pitching itself as a way for TV viewers to skip those same commercials.' On the one hand, the eight 30-second national television commercials made in 2000 and 2001 by TiVo's advertising agency, Goodby, Silverstein and Partners, offer a series of humorous, sometimes edgy vignettes illustrating life with TiVo, including a controversial commercial, 'Network Programmers', which the CBS network refused to run on its hit programme Survivor in July 2000. The commercial's single-take tracking shot follows two silent, well-muscled men sweeping past network
high-rise offices and secretaries' desks calmly to throw a 30-something network executive through his corner office window, while a sardonic voice-over intones: 'Look at these guys. Network TV programmers. They decide what we watch and when we watch it. Who needs them. TiVo. TV your way.'

The other TiVo commercials similarly evoke the viewer-liberating, anti-commercial ethos of the product, using everything from fake 'masculine itching' ads with ex-football heroes on a golf fairway to sober-sounding public service appeals for an end to an epidemic of 'people hurting TVs and TVs hurting people' staged in a hospital emergency room filled with human and television-set casualties (see plate 10).

However, the anti-commercial inflection of TiVo's own commercials belies the company's more ambivalent business model. TiVo has a dizzying array of equity partners from cable and satellite companies, consumer electronics manufacturers, and programme producers and networks, and the company has tried very hard to present the personal video recorder as a technology which will aid television advertisers, not put them out of business.

Current efforts include four so-called 'branded areas' where TiVo turns over screen space and hard disk storage areas directly to advertisers. These include TiVo Direct, 30 minutes of direct response video programming pre-installed in the personal video recorder; TiVo Takes, a TiVo Studios-produced weekly programme magazine, with interactive-encoded previews of upcoming programmes; Network Showcases, an on-screen menu of branded network partners; iPreview, interactive television promos; and TiVolution Magazine, a weekly-updated branded on-screen text preview of forthcoming programmes.

'HOW GOD WATCHES TELEVISION': LIFE WITH THE PERSONAL VIDEO RECORDER

With only 154,000 TiVo units sold by January 2001 (and less than half of US consumers reporting to have heard of the product), substantive research is scant on how the personal video recorder alters audience viewing habits. Furthermore, it may be misleading to extrapolate from the experience of so-called 'early adopters', who are likely not to be representative of the eventual mass market, if any, for the device. However, in its promise of viewer sovereignty over the programme schedule, the personal video recorder has already provoked a revision of the cultural value of the entire television medium for some observers.

Writing in opposition to 'TV Turnoff Week', an annual event organised by the TV Turnoff Network (formerly TV-Free America, with media scholars George Gerbner, Todd Gitlin, Mark Crispin Miller and Neil Postman on its board of directors) and endorsed by the American Medical Association, the National Education Association and the American Academy of Pediatrics, one American journalist admonished readers instead to record 'absolutely everything for future viewing', and cited TiVo's suitability to this task. After all, she argued, 'we'd never walk into a library or bookstore, spin around blindfolded and decide to read whatever our hand fell on. We wouldn't tell our kids, 'It's time for your bedtime story. Here's this month's Playboy.'

The ability of the personal video recorder to tailor the flood of programming to individual tastes and schedules has had the effect of elevating the cultural prestige of the medium as a whole, at least among some trade observers.
What the company's own market research has suggested is that TiVo purchasers are 'decisively male', high status, primarily between the ages of 25 and 44, with high levels of disposable income and leisure spending, likely to have computer skills and homes already filled with DVD players, personal computers with Internet access, and young children. Proprietary ethnographic research data presented at the Association of National Advertisers annual Television Advertising Forum in March 2001 indicated that 75 per cent of TiVo users still begin their viewing sessions with live television, turning to recorded material on their hard drives only if they find nothing that interests them. The researcher also reported that while almost all TiVo users report using the device to avoid commercials, actual observation indicated that commercials were still being watched, although more selectively; the video recorder works as a commercial filter, not a commercial eliminator, according to the researcher. In any event, it is likely that viewers highly averse to watching commercials before TiVo were already using other means to avoid watching them. The research also indicated that the recorded programming least likely to contain commercials which were skipped upon playback were children's shows, and men were more likely to avoid commercials than women. A TiVo executive more recently estimated that 50 to 80 per cent of owners scanned through at least some commercials.

The implied gender issues in the preliminary audience research have found resonance in the trade discussions of the personal video recorder. One industry journalist in January 2001 wrote: 'I think pausing live TV is largely "a guy thing", another way that men can use the remote to prove we are the masters of our universe'. While it is premature to describe the 're-masculinisation' of the domestic television set with the introduction of the personal video recorder and other interactive television devices, the position of the television set within the larger masculinist subculture of home theatre technophilia and connoisseurship has already affected the medium's position within both the household and wider cultural life. One attempt literally to reposition the emerging 'Technographics segment' that Forrester Research calls the 'Mouse Potato' (Technology-accepting, entertainment-focused, and with above-average incomes) was a partnership announced in January 2001 between Microsoft and the US furniture manufacturer La-Z-Boy Inc. to market a $1,500 WebTV-equipped recliner, named 'The Explorer', complete with a WebTV wireless keyboard, two months' free WebTV service, a fused, surge-protected 110V power outlet and AC adapter for laptop use, a DSL port, and a standard modem line; concealed within the other armrest is storage for remote controls and a cupholder. One Internet news site began its announcement of the product launch with 'Internet junkies and couch potatoes unite!', and the rhetorical and literal condensation of the figures of Web surfer and television viewer, fixed in discursive opposition in the trade and popular press over the past decade, suggests the wider stakes of the putative merging of computer and television set via digital technologies. Another commentator on the new recliner evoked the incongruity of the imagined merger of Web surfer and television viewer in a characteristically comic and condescending tone endemic to such discussions: 'Middle America, lie back and meet the Internet... Plug in, log on and veg out'.
In addition to Microsoft’s attempts to revive the oxymoronic advertising appeals of early television-set manufacturer DuMont to the male viewer as an ‘armchair Columbus’, the current re-gendering of the television apparatus in the home can also be seen in the thriving subculture of TiVo hackers, sustained through a number of unofficial Web sites which thus far have generally been tolerated by TiVo. TiVo’s Linux-based operating software has attracted a relatively large number of hackers who seem chiefly interested in installing higher-capacity standard computer hard drives, although hackers have also reportedly succeeded in changing the compression algorithms of the TiVo software.\textsuperscript{32} In May 2001, the New York Times quoted TiVo’s customer relations director’s estimate that about 1 per cent of the company’s 150,000 customers have altered their machines, thereby invalidating their machines’ warranties; he told the paper that the company had rewarded some hackers with gifts of free service for telling the company about hacks they had accomplished.\textsuperscript{33} After quoting a number of male TiVo hackers, the Washington Post concluded: ‘The “hackability” of a product can be appealing in its own right to some customers – the ones who are curious, technically minded or cheap. To a hacker, a modification doesn’t even have to be particularly useful – just elegant.’\textsuperscript{34} A full account of the meeting of the prosaic television set with the gendered subculture of computer hackers would need to consider the ways in which the individual artifact of domestic technology may constitute, in Sherry Turkle’s words, an ‘evocative object, an object that fascinates, disturbs equanimity, and precipitates thought’.\textsuperscript{35} Both the television set and personal computer can become powerful constructive and projective media, consolidating personal and social identities, and the diffusion of the personal video recorder promises to reconfigure the psychological and social meanings of these familiar domestic technologies.

While TiVo buyers are ‘decisively male’, the device’s ambivalent position between the gendered technologies of domestic television, on the one hand, and the personal computer and home cinema, on the other, highlights tensions within the consumer electronics market going back to the development of high-fidelity audio as a male subculture in the late 1940s and 1950s, tensions enacted in quotidian battles over household spending, domestic space and viewing and listening habits.\textsuperscript{36} TiVo’s Web site, for example, contains a number of testimonials from male customers related to such micro domestic battles across the US, including ‘my wife normally cringes when I bring home a new gadget, but she LOVES TiVo, and calls it “hers”’; ‘the only audio/electronic component that my girlfriend actually doesn’t want to disconnect the moment it enters the system’; and ‘... even my wife, who is not quite the gadget nut I am, is thrilled with TiVo’.\textsuperscript{37} Another TiVo promotional page, ‘Celebrity Quotes’, includes a quotation from retired football quarterback Steve Young which indicates how TiVo’s entrance into the household may or may not disturb traditionally gendered household routines:

I thought once I stopped playing football, things would be quieter. But with a new baby in the family, I’m more busy than ever. With TiVo, I can record all the games and watch them whenever I want. And with the ability to pause live TV for a diaper change, my wife may love TiVo even more than I do!\textsuperscript{38}
It is clear that the personal video recorder, itself a marriage of television and computer technologies, has evoked a range of complex consumer responses enmeshed with larger cultural figurations of the television viewer and computer hobbyist. TiVo's Web site quotes one journalist:

TiVo is like a drug. It enhances humdrum parts of your world, eats up your time, taps your wallet and is extremely difficult to explain to anyone who hasn't used it before. Fortunately, personal digital video recorders don't have the downsides of most drugs, and they're a lot cheaper than most illicit habits. But after using TiVo for a while, I'm finding it very hard to conceive of going back to plain old TV.²⁹

While the rhetoric of addiction and time-wasting here evokes the traditional figure of the disreputable television viewer, the appeal to an exclusive subculture of initiated users also suggests the more elevated fraternity of the male hi-fi hobbyist and computer enthusiast, which since the 1950s has been rhetorically constructed as the antipode to the commercially debased, passive and lowest-common-denominator activity of television viewing. Significantly, in addition to retired football players and mid-tier showbusiness celebrities, TiVo's 'Celebrity Quotes' Web page also features a prominent endorsement from legendary personal computer pioneer Steve Wozniak, co-founder of Apple Computer, and one of TiVo's customer testimonials includes the simple endorsement, 'best invention since the PC'.³⁰ In a different context, TiVo's national television advertising attempts to link the personal video recorder to the heroic cultural narrative of the personal computer industry in a 30-second commercial, entitled *Earl*, which features a physically unprepossessing 20-something male driving his dilapidated automobile the wrong way up a freeway entrance, gleefully decapitating a parking meter, interrupting a graveside service with the 'Hallelujah' chorus and demanding (successfully) that he bring home a giant live tiger from a bewildered zoo employee. 'Now that I have TiVo, and I can watch whatever I want, I want to do whatever I want.... Not everyone understands.... Then again, not everyone's got TiVo,' he explains over the assorted incidents. The cultural fantasy of technologically delivered social mastery by interpersonally-challenged male technophiles, the 'revenge of the nerds', has been a powerful mythic scenario of the personal computer industry in the US.³¹

CONCLUSION

Beyond the ways in which the introduction of the personal video recorder may alter long-held, everyday understandings of the television medium, the mere threat of the personal video recorder has already encouraged a range of new technological and advertising countermeasures to the digital recorder's ability to evade standard television commercials. In the spring of 2001, the contracting advertising market for network television and the technological threat of the personal video recorder with its ability to ignore advertisements together created a climate of increased network accommodation to advertiser wishes in prime-time programming. In addition to the still rather exotic use of virtual imaging
technologies to insert branded sports enhancements (including branded virtual first-down markers in the foreign feeds of the January 2001 Super Bowl), virtual signage at sporting and other live events, and virtual products placed into network or syndicated programming, the advertising and television trade presses over the past few years have been filled with calls for sponsors and broadcasters to develop advertising vehicles that would rebuff the expected loss of advertising viewers armed with digital recorders. This would happen through the development of what TiVo calls 'embedded commerce', impossible even for technologically enhanced viewers to avoid, including on-screen banner ads, intensive use of conventional product placement and the move to single-sponsor infomercials and entertainment programming. The growing use of such 'embedded commerce' in the forms of intrusive product placement, star-talent product pitches and sponsor-designed programmes represents an eerie echo of some of the earliest business practices in the US television industry, with important implications for a range of issues from the creative freedom of television writers and producers to the design of programme formats themselves. Despite, or perhaps because of, the networks' increasingly desperate efforts to retain advertisers through increased product placement and branding opportunities, some in the industry have expressed fears that, in the words of Forrester Research's Josh Bernoff, 'broadcast networks [will] lose their reputation for quality', as viewers increasingly evade commercials; advertising revenues fall and audiences rebel against intrusive product placement.

At the same time, it is important to keep in mind that the commercial prospects for interactive television generally and the success of any specific personal video recorder service such as TiVo or Ultima TV are by no means assured in the US or elsewhere. Indeed, the question of which domestic device will serve as portal and recorder for digital television is still unsettled; contending platforms include satellite and cable decoder boxes, DVD players, video game consoles, and television sets themselves. Similarly unsettled are the contentious financial agreements among hardware makers, content providers and delivery system operators to share prospective interactive television revenues, leading one analyst quoted in Advertising Age in December 2000 to lament that 'there are too many pigs at the trough'.

In any event, the current instability and contention within the US television industry has at least had the salutary effect of making it clear that 'television' as we have so long known it has always been historically and ideologically contingent. The social meanings of television are complex and deep-seated, and may not be exclusively, or even especially, driven by changes in technology. As the present turmoil demonstrates, technological change affects distinct interests within the industry in very different ways, provoking revealing clashes among the competing actors and public constructions of the medium. At the same time, television as an informal nexus of textual practices, commercial and regulatory institutions, popular attitudes, and audience practices may prove to be more robust and long-lived than the current ubiquitous prophets of the medium's imminent demise imagine.
Notes

13. Josh Bernoff, TV Viewers Take Charge, p. 11.
16. TiVo Entertainment Group publicity material.
19. The list includes AOL Time Warner (13 per cent, with an option to buy 30 per cent), Advance/Newhouse, CBS, Comcast Corporation, Cox Communications, DirectTV, Discovery Communications, Encore Media Group, Liberty Media subsidiaries, Liberty Digital, NBC, Philips Electronics, Showtime Networks, SONY, TV Guide Interactive and The Walt Disney Company; see TiVo’s Web site, <www.tivo.com/tivo_inc/partners.asp?frames=no>.
21. The percentage of Americans aware of the product was reported by Tim Spengler, Initiative Media, North America, at the personal video recorder panel of the 2001 Association of National Advertisers Television Advertising Forum, 29 March 2001, Plaza Hotel, New York City.


25. Ibid.

26. On the other hand, some TiVo users expressed the desire to be able to use TiVo to search for commercials as well as for programming for viewing. According to TiVo’s behavioural research on TiVo users, Saturday is the most popular day for video playback; the most popular time of day for viewing recorded material is early fringe time and late night; the heaviest taping target time is prime time; and the average interval between recording and playback is two days. According to TiVo, personal video recorder households watch an extra three hours of television per week: Ken Ripley, National Director, Advertising Sales, TiVo, at the personal video recorder panel of the 2001 Association of National Advertisers Television Advertising Forum, 29 March 2001, Plaza Hotel, New York City.


38. See <www.tivo.com/entertain/celeb_quotes_p2.asp>.


42. TiVo press release; for an account of increased interest among advertising-supported cable networks in advertiser-supplied programming, see Jim Forkan, 'On Some Cable Shows, the Sponsors Take Charge; Advertiser-supplied Programming Trend Focuses on Outdoorsy and Family Genres', *Multichannel News*, 4 June 2001, p. 53; on the growth of product placement, see Wayne Friedman, 'Eagle-Eye Marketers Find Right Spot, Right Time; Product Placements Increase as Part of Syndication Deals', *Advertising Age*, 22 January 2001, p. S2.
