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The Work of Being Watched: Interactive Media and the Exploitation of Self-Disclosure

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□–*Recognizing that privacy rights are complicit in the very forms of economic monitoring and data gathering they ostensibly oppose, this essay offers a critique of corporate surveillance as a technique for exploiting the work of being watched. Consumers who submit to comprehensive surveillance in response to offers of convenience and participation perform valuable work for corporations and marketers. The model of consumer labor developed in the essay is applied to the online economy and the example of interactive TV. The analysis suggests that a critical approach to forms of surveillance facilitated by interactive media must focus on asymmetries of power and control over information technologies and resources.*

DURING the halcyon days of the high-tech economy–at the dawn of the new millennium–an entrepreneurial-minded former employee of the AirTouch corporation decided to change his name to DotComGuy and live his life on-line. For the former Mitch Maddox (a.k.a. DotComGuy) the decision was more than just a lifestyle decision; it was a business decision. By living his life in front of 25 cameras installed in his house and yard, DotComGuy hoped to demonstrate the benefits of e-commerce, ordering everything he needed on-line so that he wouldn't have to leave his home for a year. As an on-line advertisement for e-commerce–an entrepreneurial Truman Burbank–DotComGuy hoped to turn his Website into a for-profit corporation that would generate enough money to support his handlers and earn him a $98,000 paycheck for his year-long stint in the DotCompound.

The plan started swimmingly–DotComGuy's stunt resulted in media coverage that drew sponsors and captured the attention of viewers, who generated more than a million hits a day for his Website during its first few months (personal interview with Mitch Maddox, Sept. 16, 2000). By the end of the year, the euphoria over the on-line economy had been replaced by a healthy dose of skepticism, and as the NASDAQ headed south, so did DotComGuy's fortunes. On New Year's Day 2001, DotComGuy left the compound behind and forfeited his $98,000 payday, keeping as payment only those products that the company had purchased or received for promotional pur-

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poses (Copeland, 2001). DotComGuy's venture may have failed as a business enterprise, but it succeeded in drawing attention to an important aspect of the emerging online economy: the productivity of comprehensive surveillance.

DotComGuy understood that while he was in the DotCompound, he was *working* 24-hours-a-day. Even when he was sleeping, the image of Maddox tucked into bed in his Dallas home was surrounded with banner ads and the names of sponsors, some of which were posted on the walls of his house. It was for the work he was performing by subjecting himself to online surveillance that DotComGuy was to receive his $98,000 payday. That he failed to turn a profit doesn't alter the economic fact upon which his entrepreneurial venture was based: that the emerging online economy increasingly seeks to exploit the work of being watched. DotComGuy may have failed to capitalize on this labor as an entrepreneur, but major corporations continue to attempt to exploit the economic potential of this labor on a much larger scale.

Some 15 years ago, Jhally and Livant (1986), inspired by the work of Dallas Smythe (1977; 1981), argued that communication theory needed to take seriously the notion that audiences were working when they were watching television. This paper seeks to develop their argument a bit further–to update it, as it were, for an era of new-media interactivity– by highlighting the emerging significance of the work not just of watching, but of *being* watched. The two complement each other, insofar as the development of interactive media allows for the rationalization of viewing and consumption in general, thanks to devices like interactive television that watch us while we watch. In the era of "reality" TV, wherein networks are winning ratings battles by enlisting people to submit their lives to comprehensive scrutiny, the claim that being watched is a form of value-generating labor ought not to be a particularly surprising one. We are not just facing a world in which a few select members of the audience are entering the celebrity ranks and cashing in on their 15 minutes of fame, but one in which non-celebrities–the remaining viewers–are being recruited to participate in the labor of being watched to an unprecedented degree by subjecting the details of their daily lives to increasingly pervasive and comprehensive forms of high-tech monitoring. Their viewing habits, their shopping habits, even their whereabouts are subject not just to monitoring but to inclusion in detailed marketing databases, thanks to the advent of computer-based forms of interactive media. This observation has become a commonplace in the popular literature on new media and has generated plenty of discussion on the fate of personal privacy in the on-line economy (see, for example, Garfinkel, 2000; Rosen, 2000; Whitaker, 1999). The consensus seems to be that the development of interactive media and of computer processing and storage power enable the increasing economic exploitation of comprehensive forms of consumer monitoring. In response, organizations like the Electronic Privacy Information Center (EPIC) have organized to advocate for consumer privacy rights and protection from creeping corporate surveillance.

The drawback of much of the discussion about privacy, as authors including Lyon (1994) and Gandy (1993) have suggested, is that the attempt to defend privacy rights has a disconcerting tendency to work as much in the interest

of the corporations doing the monitoring as in that of the individuals being monitored. The development of demographic databases relies heavily on the protection accorded to private property, since these databases are profitable in large part because the information they contain is proprietary. As Lyon (1994) puts it, "Privacy grows from the same modern soil as surveillance, which is another reason for doubting its efficacy as a tool of counter-surveillance" (p. 21).

As an alternative to the popular portrayal of the proliferation of corporate surveillance in terms of the incredible shrinking private sphere, this essay suggests an approach influenced by the concerns of political economy and the analysis of disciplinary panopticism. Conceived as a form of labor, the work of being watched can be critiqued in terms of power and differential access to both the means of surveillance and the benefits derived from their deployment. The operative question is not whether a particular conception of privacy has been violated but, rather: what are the relations that underwrite entry into a relationship of surveillance, and who profits from the work of being watched? Such an analysis draws its inspiration from Robins and Webster's (1999) assessment of the Information Revolution as "a matter of differential (and unequal) access to, and control over, information resources" (p. 91). Gandy (1993), quoting Klaus Lenk, cuts to the heart of the matter:

> The real issue at stake is not personal privacy, which is an ill-defined concept, greatly varying according to the cultural context. It is power gains of bureaucracies, both private and public, at the expense of individuals and the non-organized sectors of society. (p. 52)

Foucault's (1975/1977) discussion of disciplinary surveillance offers an approach to the question of power that seems particularly relevant to the development of the online economy since it focuses not so much on the repressive force of panopticism, but its productive deployment. The potential of the online economy that has recently attracted so much speculation—both financial and cultural—is predicated in large part on the anticipated productivity of generalized network surveillance. The power in question is not the static domination of a sovereign Big Brother, but that of a self-stimulating incitement to productivity: the multiplication of desiring subjects and subjects' desires in accordance with the rationalization of consumption. In this context, the production of ever more refined and detailed categories of desiring subjectivities serves, as Butler's (1997) analysis suggests, as a site for the reiteration of existing conditions and relations of power.

The starting point for an analysis of surveillance as exploitation is the assertion that just as workplace monitoring contributes to the rationalization of production, so on-line surveillance contributes to the rationalization of consumption. The attempt to extend the monitoring reach of corporate managers via the internet serves to compel personal disclosure by replacing non-monitored forms of consumption with monitored interactive transactions. The following sections attempt to trace the outlines of the process whereby the work of being watched comes to serve as a means of rationalizing not just what Jhally and Livant (1986) call the work of watching, but the process of on-line consumption in general. The goal is to offer an alternative approach to the debate over on-line privacy in

the era of new-media interactivity. Not only is the privacy defense aligned with the process it ostensibly contests, but, practically speaking, it has failed to provide effective resistance to encroaching surveillance. Indeed, opponents of corporate surveillance seem unable to provide a compelling rationale for privacy protection in an era when consumers remain surprisingly willing to surrender increasingly comprehensive forms of personal information in response to offers of convenience and customization.

Perhaps some awareness of the way in which the new "transparency" exacerbates informational asymmetries and power imbalances, serving as a form of marketplace discipline, might provide stronger grounds for a critique of the proliferation of corporate surveillance. Such a critique might also help challenge the promotion of interactive technologies (and the forms of consumption and production they facilitate) as inherently democratic and empowering. This essay seeks to provide one starting point for such a challenge by exploring how the promise of interactivity functions as an invitation to engage in the work of being watched. The remaining sections of the essay trace the development of the productive role of surveillance from its deployment in the workplace to its extension into the realm of online consumption, drawing on the example of interactive TV, especially TiVo, to illustrate the importance of interactive media to the rationalization of e-commerce.

Productive Surveillance

The productivity of surveillance, for the purposes of this article, can be understood as being always parasitic upon another form of labor. For example, Braverman's (1974) discussion of the pioneering work of Frederick Taylor in developing a system of workplace rationalization in the late 19th and early 20th centuries highlights the reliance of what Taylor called "scientific management" upon comprehensive forms of workplace monitoring. Taylor's description of how he succeeded in dramatically increasing the productivity of steel workers starts off with a description of the role of surveillance in deciding which workers would be targeted. Managers observed the entire workforce for four days before choosing several workers upon whom to focus their efforts: "A careful study was then made of each of these men. We looked up their history as far back as practicable and thorough inquiries were made as to the character, habits, and the ambition of each of them" (Taylor, as quoted in Braverman, 1974, p. 104). The selected worker's training consisted in his being supervised by a manager who observed his every action, timing him with a stopwatch, and dictating the laborer's actions down to the most specific detail. The result of all this monitoring and managing was that the productivity of the day laborer, whom Taylor refers to in his case study as "Schmidt," almost quadrupled. The activity of being watched wasn't productive on its own, but coupled with another form of labor, it helped multiply the latter's productivity. Over time, the recognition of the productivity of surveillance helped to institutionalize the rationalization of production based on ever more detailed forms of workplace monitoring, including Gilbreth's famous time and motion studies.

Among those who write about surveillance, Foucault (1975/1977; 1976/1978) has powerfully thematized its

productive aspect, which all too often gets short shrift in the critical literature on surveillance. For example, Giddens's (1981) discussion of the police power of the surveillance state, as well as the various discussions of disciplinary surveillance offered by Norris and Armstrong (1999), Lyon (1994), and Gandy (1993), retain strong overtones of what Foucault describes as the insistence in the West on "seeing the power it exercises as juridical and negative rather than technical and positive" (1980, p. 121). This tendency is also reflected in the public debate over online privacy, which centers on the "invasion" of privacy and the oppressive surveillance capacity of the state. The emphasis is upon the ways in which disciplinary surveillance creates "docile bodies" and not upon the more suggestive aspect of Foucault's analysis: the spiraling cycle of productivity incited by disciplinary regimes: the fact that docile bodies are not rendered inert, but stimulated. As Foucault puts it in *Discipline and Punish* (1975/1977): "Let us say that discipline is the unitary technique by which the body is reduced as a 'political' force at the least cost and maximized as a useful force" (p. 221). Docility and pacification are certainly among the goals of discipline, but the real power of surveillance is a relentlessly productive and stimulating one:

> The Panopticon . . . has a role of amplification; although it arranges power, although it is intended to make it more economic and effective, it does so not for power itself . . . its aim is to strengthen the social forces–to increase production, to develop the economy . . . to increase and multiply. (1977, p. 208)

This power–and not the sterile juridical "repressive" gaze of Big Brother–is what attracts the interest and the capital of the online economy.

In contemporary terms, productive disciplinary power stimulates the proliferation of desiring subjectivities through the multiplication of consumption categories: the endless sub-categorization and specification of individualized sets of tastes and preferences. Recording and measuring, specifying and naming, these are the current watchwords of the marketing industry, which doesn't "set boundaries" for consumption, but extends its various forms, "pursuing them to lines of indefinite penetration" (Foucault 1976/1978, p. 47). For example, the proponents of mass customization (Negroponte, 1995; Pine, 1993; Gates 1996) imagine the possibilities of specifying desire ever more narrowly based not just on consumers' past preferences and socio-economic backgrounds, but on the details of the moment: location, the time of day, the weather. As in the case of sexuality, the elaboration and proliferation of desire is achieved through subjection to a discursive regime of self-disclosure whose contemporary cultural manifestations include not just the mania for interactivity, but the confessional culture of a talk show nation, and, most recently, the ethos of willing submission to comprehensive surveillance associated with the booming reality TV trend.

The power of Foucault's approach is that it extends its consideration of the productive role of panoptic surveillance beyond the realm of the workplace. The accumulation of bodies–their organization and deployment not just within the factory walls, but in the "privacy" of homes and bedrooms–is a necessary corollary to the accumulation of capital (and vice versa). As Foucault puts it, capitalism "would not be

possible without the controlled insertion of bodies into the machinery of production and the adjustment of the phenomena of population to economic processes" (1975/1977, p. 141). Disciplinary surveillance does not just underwrite subjection to the proliferation of desire, it also–and not incidentally–enhances economic productivity.

Foucault's account of the productive role of desire thus provides a useful rejoinder to those who engage in what Schiller (1988) describes as a "Sisyphean attempt to distinguish productive from unproductive labor in terms of a hypostasized set of productive activities" (p. 36). The information economy–including that designed to stimulate consumption via the accumulation, manipulation, and deployment of information derived from consumer surveillance–is economically productive, and the labor associated with it can be identified by its status as a value-generating activity. The stimulation and rationalization of consumer desire is a practical corollary to the rationalization of production proper. As Harvey (1999), following Marx, puts it, "production and consumption relate to each other so that 'each of them creates the other in completing itself, and creates itself as the other' " (p. 80). For example, as historians, marketers, and social critics alike have recognized (Marchand, 1985; Sloan, 1963; Robins & Webster, 1999), the development of consumer society required techniques for stimulating consumption to keep pace with the increasing volume and variety of products made available by the technological and managerial advances associated with the industrial revolution. These techniques went far beyond management of the workplace proper, and relied upon detailed monitoring of consumer habits and lifestyles. Gathering this information was the work of market researchers and advertisers–work that is becoming increasingly important in the era of niche markets and customized products and services. Interactive technologies, as the business world has come to recognize (Mougayar, 1998), allow for much of this work to be offloaded onto consumers, who increasingly provide detailed information about themselves as they consume. The economic value of this information means not just that it can be bought and sold, but that consumers are often compensated for their participation in producing it.

Rationalizing the Work of Watching

Jhally and Livant (1986) describe another form of labor for which consumers are "paid": the work of watching. Building on their approach, this section takes the argument a step further by exploring the way in which the work of *being watched* contributes to the rationalization of the work of watching. Jhally and Livant's analysis is straightforward: audiences perform work by viewing advertising in exchange for "payment" in the form of programming content. The viewing of advertising is productive because it helps "speed up the selling of commodities, their circulation from production to consumption. . . . Through advertising, the rapid consumption of commodities cuts down on circulation and storage costs for industrial capital" (p. 125). In these terms, watching advertising might be understood as an activity in which, as Harvey (1999) puts it, the process of consumption completes itself in the process of production.

For the purposes of a consideration of the labor of *being* watched, the cru-

cial point made by Jhally and Livant (1986) is that the goal of media management is to rationalize the work of watching–to "make the audience watch harder" (p. 133), just as Taylor made Schmidt quadruple his daily productivity. One strategy for rationalization is niche marketing, which Jhally and Livant describe as "the specification and fractionation of the audience" that leads to "a form of 'concentrated viewing' in which there is (from the point of view of advertisers) little wasted watching" (p. 133). As in the case of Schmidt, what is needed is detailed information about the audience labor force: both its background and its behavior. The commodification of this information has already been institutionalized as the secondary market in ratings, whose growth accompanied that of the electronic mass media. The labor of *being* watched goes hand-in-hand with the work of watching: viewers are monitored so advertisers can be ensured that this work is being done as efficiently as possible. Ratings, in this context, are informational commodities that generate value because they help to rationalize the viewing process. They become what Mosco (1996), following Meehan, describes as "cybernetic" commodities: "feedback" commodities produced through consumption or interaction (p. 151).

Within the context of the mass media, the labor of being watched faced certain limitations, both structural and cultural. Watching advertising may be a form of work, according to Jhally and Livant, but it does not take place within a centralized space that would allow broadcasters to stand over viewers with a stopwatch, as in the case of the scientific management of the factory labor force. Indeed, a certain expectation of privacy outside the workplace is one of the hurdles that those who would rationalize the work of being watched need to overcome. The fact that we accept surveillance more readily in the workplace is a function of the characteristic spatio-temporal differentiation associated with wage labor in modernity, according to Giddens (1981): "Two opposed modes of time-consciousness, 'working time' and 'one's own' or 'free time', become basic divisions within the phenomenal experience of the day" (p. 137). Surveillance, within this schema, is associated with time that is not free, but which is subject to the asymmetrical power relations of the workplace, underwritten by the workers' subordination to those who control the space of production.

The productive potential of the labor of being watched is further limited by the structure of the mass media, which are only capable of exploiting the logic of market fractionation up to a point. It is desirable to isolate an affluent demographic, but to continue to subdivide the audience beyond a certain point would be counter-productive, not least because the existing technology is not well-suited to individualized programming. At the same time, detailed monitoring has tended to be relatively costly and has relied to a large extent on the consent of the monitored. Thus, the television industry has, until recently, contented itself with the relatively small sample offered by the Nielsen ratings, rather than attempting more detailed and comprehensive approaches to managing the work of watching. However, the advent of interactive, networked forms of content delivery promises to overcome these limitations and to develop the potential of the work of being watched to its fullest.

Interactive Surveillance in the Digital Enclosure

The emerging model of the on-line economy is explicitly based on the strategy for rationalizing and disciplining the labor of viewing–and of consumption in general–so as to make it more productive. The goal is to replace mass marketing and production with customized programming, products, and marketing. In the business literature (Mougayar, 1998; Pine, 1993), this paradigm is described as "mass customization": the ability to produce mass quantities of products that are, at the same time, custom-tailored to niche markets and, at the extreme, to specific individuals. Described as the advent of flexible production in response to increasingly volatile market conditions, mass customization represents the enhanced capacity of interactive technology to exploit the productive potential of market segmentation. Viewed as a strategy for promoting consumption, niche marketing is not a demand-driven phenomenon, instigated by the sudden, inexplicable volatility of consumer preferences, but rather, as Harvey (1990) suggests, a supply-side response to the saturation of the mass market.

In the media market, as well as in other segments of the economy, the promise of interactive communication technologies is to surpass the structural limitations that prevented the exploitation of increasingly compact market niches. If the advent of cable television allowed for market segmentation up to a point, the development of digital delivery allows for its extension down to the level of the individual viewer. Bill Gates (1996), for example, anticipates a world in which not just the timing and choice of programs will be customized, but in which the content and the advertising can be adapted to viewer preferences, allowing individuals to choose the type of ending they want, the setting of the movie, and even the stars (who can be "customized" thanks to digitization). Similarly, customized advertising would ensure that every ad is tailored to the demographics of its recipient. A similar logic could be extended to products other than media programming. For example, computerization, according to Gates (1996), will allow "Increasing numbers of products–from shoes to chairs, from newspapers and magazines to music albums" to be "created on the spot to match the exact specifications of a particular person" (p. 188). Half a decade after Gates made these predictions, *Wired* magazine, in its April, 2001 "Megatrends" issue declared "personal fabrication on demand" to be one of the top emerging trends of the new millennium (p. 172).

The attempt to develop increasingly customized programming and products foregrounds the economic importance of what might be described as the 21st century digital confessional: an incitement to self-disclosure as a form of self-expression and individuation. Interactive (cybernetic) media promote this self-disclosure insofar as they offer the potential to integrate the labor of watching with that of *being* watched. The cybernetic economy thus anticipates the productivity of a digital form of disciplinary panopticism, predicated not just on the monitoring gaze, but on the vast array of digital data made available by interactive and convergent communication technologies.

The accumulation of detailed demographic information allows not only for the customization of products and programming, but also for customized pricing. Whereas mass production was reliant on the aggregation of individual

demand curves, customization allows for the dis-aggregation of demand curves, and thus for the possibility that producers can extract some of the "surplus" previously realized by consumers. Amazon.Com's recent experiments in "variable pricing" anticipated this dis-aggregation by attempting to charge customers different prices for the same product, based on demographic information gleaned on-line from purchasers' "cookies" (Grossman, 2000).

Digital Enclosure

The current deployment of the Internet for e-commerce may be viewed as an attempt to achieve in the realm of consumption what the enclosure movement achieved in the realm of production: an inducement to enter into a relationship of surveillance-based rationalization. The process of digital enclosure can be defined, in these terms, as the process whereby activities formerly carried out beyond the monitoring capacity of the Internet are enfolded into its virtual space. The process is still very much in its early stages, but is heavily underwritten by investments in new media technologies (Schiller, 1999) and by the enthusiastic and breathless predictions of cyber-futurists that continue to make their way into the mass media. Lester (2001) notes that entrance into what I call the digital enclosure is often voluntary (at least for the moment), but he coins an interesting term to suggest that consumers are compelled to go on-line for an increasing array of transactions by "the tyranny of convenience" (p. 28). The current trend suggests that over time, alternatives to this "tyranny" may be increasingly foreclosed. The result is that consumption and leisure behaviors will increasingly migrate into virtual spaces where they can double as a form of commodity-generating labor. If the latest work of a popular author or musical group is available *only* on-line, consumers are compelled to enter a virtual space within which very detailed forms of surveillance can take place. Electronic databases can keep track not only of who is reading or listening to what, but when and where.

The exploitation of the labor of being watched is thus crucially reliant upon public acceptance of the penetration of digital surveillance into the realm of "free" time. That this acceptance may not be immediately forthcoming is reflected in surveys like the 1999 *Wall Street Journal*-NBC poll cited by Lester (2001) for its finding that "privacy is the issue that concerns Americans most about the twenty-first century, ahead of overpopulation, racial tensions, and global warming" (p. 27). Lawmakers have recognized the importance to the digital economy of assuaging these concerns and are attempting to pass legislation to ensure consumers a certain degree of "privacy protection" (Labaton, 2000, p. A1). The problem with such legislation from a business standpoint, and perhaps one of the reason it tends to get bogged down in committees, is that it threatens to dry up the flow of surveillance-generated information that is the lifeblood of the economy it ostensibly enables.

The more promising approach, from a corporate perspective, has been to attempt to reposition surveillance as a form of consumer control. The popular reception of the Internet as a means of democratizing mediated interaction and surpassing the one-way, top-down mass media certainly works in favor of this attempt. Thus, the claims of the cyber-celebrants, such as George Gild-

er's (1994) oft-cited prediction that "The force of microelectronics will blow apart all the monopolies, hierarchies, pyramids, and power grids of established industrial society" (p. 180) line up neatly with the corporate promise that the interactive digital market is "a customer's paradise," presumably because the "customer is in control" (Mougayar, 1998, p. 176). Casting the net slightly wider, it is worth investigating the extent to which the celebration of the progressive potential of interactivity in some strands of media theory helps to promote the advantages of entry into the digital enclosure. The more we view this enclosure as a site for the potential revitalization of community (Rheingold, 1993) and democracy (Brady, 1998; Kellner, 1999), the more inviting it appears. Similarly, as Robins and Webster (1999) suggest, the celebration of the information age as a post-industrial resolution to the depredations of industrial society helps background the fundamental continuity of the "information era" with the exploitative relations of industrial capitalism. My intent is not to dismiss the progressive potential of interactive media outright, but rather to note how neatly their uncritical promotion lines up with the interests of those who would deploy the interactive capability of new media to exploit the work of being watched.

In short, the promise of the "revolutionary" potential of new media bears a marked similarly to the deployment of the supposedly subversive potential of sex that Foucault (1976/1978) outlines in his discussion of the "repressive hypothesis." When, for example, the *New York Times* informs its readers that the advent of interactive digital television is "the beginning of the end of another socialistic force in American life: the mass market" (Lewis, 2000), it contributes to the deployment of what might be called "the mass society repressive hypothesis." The latter underwrites the ostensibly subversive potential of interactivity even as it stimulates the productivity of consumer labor. The most familiar version of this hypothesis suggests that mass production worked to stifle the forms of individuation and self-expression that will be fostered in the upcoming digital revolution: that the incitement to divulge our consumption-related behavior (and what else is there, from a marketing perspective?) paradoxically represents a subversion of the totalitarian, homogenizing forces of the mass market. As in the case of the deployment of the repressive hypothesis, the promised subversion turns out to be an incitement to multiply the very forms of self-disclosure that serve the disciplinary regime they purportedly subvert. As Marchand (1985) suggests, the promise of individuation—of the self-overcoming of mass homogeneity—was a strategy of the regime of mass society *from its inception.* Mass society's ostensible self-overcoming becomes a ruse for the incitement to self-disclosure crucial to the rationalization of what undoubtedly remains a form of mass consumption.

The Example of TiVo

Recent developments in television technology can perhaps provide a more concrete example of how the work of being watched is deployed to rationalize the work of watching. The emergence of digital VCR technology, including TiVo, ReplayTV, and Microsoft's Ultimate TV, anticipates the way in which the digital enclosure overcomes the limitations of the mass

media while enhancing their productivity. The rudimentary data generated by Nielsen Media Research, based on a sample of some 5,000 homes, may have been good enough for the standardized advertising fare offered by pre-interactive television, but it clearly cannot provide the information necessary to custom-tailor advertising to the 105 million households with television sets in the United States. As Daryl Simm, the former head of worldwide media programming for Procter & Gamble, and the current head of media at the Omnicom conglomerate recently put it,

> The measurement we use today is very crude. . . . It's an average measurement of the number of viewers watching an individual program that does not even measure the commercial break. When you think about improvements in measuring viewing habits, you think not about incremental changes but great leaps. (Lewis, 2000, p. 41)

The developers of digital VCR technology are looking to make that leap. For home viewers, digital VCRs offer several advantages over their analog ancestors: they can record several shows at the same time; they store dozens of hours of programming which can be retrieved at a moment's notice; and they automatically record programs in response to keyword requests. From the advertisers' perspective, digital VCRs offer a highly detailed form of demographic monitoring. As a rather celebratory piece about TiVo in *The New York Times* put it,

> While the viewer watched television, the box would watch the viewer. It would record the owner's viewing habits in a way that TV viewing habits have never been recorded. . . . Over time, the box would come to know what the viewer liked maybe even better than the viewer himself. (Lewis, 2000, p. 38)

Even as it retrieves programming for viewers, the digital VCR doubles as a monitoring device in the service of the system's operators, creating a detailed "time and motion study" of viewing habits that can be sold to advertisers and producers. In the panoptic register, the digital VCR becomes an automated consumption confessional: an incitement to divulge the most intimate details of one's viewing habits.

In this respect, the digital VCR represents a preliminary attempt to bring the activity of television viewing within the monitoring reach of the digital enclosure. The enticement to consumers is that of convenience and customization (perhaps even self-expression). As Lewis (2000) puts it, "Over time, the viewer would create, in essence, his own private television channel, stored on a hard drive in the black box, tailored with great precision to his interests" (p. 38). There is a degree of truth to the claim of convenience: devices like TiVo will allow viewers to more easily store and record those programs they want to watch. This is, perhaps, the compensation viewers receive in exchange for providing detailed information about their viewing habits. They will also be able to skip through commercials in 30-second intervals, but this advantage is being rendered obsolete by the integration of advertising content into the program itself (Elliott, 2000).

Drawing on the promotional strategy of the digital economy, celebrants of the new technology have adopted the "revolutionary" promise that new media will transfer control to viewers and consumers as a means of promoting their products. One of the early advertising spots for TiVo, for ex-

ample, featured two bouncers throwing a network executive through his plate glass window, enacting the dethroning of centralized corporate control. This image corresponds with the description in *The New York Times* of TiVo as a challenge to the mass market and top-down, centralized planning. According to this account, when viewed through the lens of the new "freedom" that TiVo ostensibly offers consumers, "The entire history of commercial television suddenly appears to have been a Stalinist plot erected, as it has been, on force from above rather than choice from below" (Lewis, 2000, p. 41). This retelling of history promotes interactive technologies as one more force bringing about what Shapiro (1999) calls "the control revolution," whereby "new technology is allowing individuals to take power from large institutions such as government, corporations, and the media. To an unprecedented degree, we can decide what news and information we're exposed to" (p. xi).

Disturbingly, this perspective is not unique to mainstream news outlets and business-oriented futurism, as evidenced by the fact that *Adbusters*, the "hip," alternative magazine of media criticism and culture jamming, hailed TiVo as a technology that "struck true fear into the hearts of the transnational bosses," because it "sticks it to every broadcast advertiser" (Flood, 2001, p. 17). The *Adbusters* article goes on to claim that TiVo is among those new-media technologies that herald "something revolutionary. Something almost purely democratic. Something essentially non-commercial, driven not by price but by value. At long last, the people–could it be true?–would have control of what they wanted to hear and see" (2001, p. 17). In this portrayal of the revolutionary promise of the new technology, the champions of subversive chic close ranks with their ostensible foes: neo-liberal propagandists like Wriston (1992) and Gilder (1994).

Perhaps not surprisingly–given the anticipated role of TiVo in allowing for comprehensive demographic monitoring–the "transnational bosses" aren't quivering in their boots. Rather, they have been investing whole-heartedly in the technology that will purportedly undermine their fiefdom. In 1999, Time Warner, Disney, NBC and CBS invested a combined total of more than $100 million in digital VCR technology (Lewis, 2000, pp. 40–41). Either the prognosticators of democratic utopia are overly optimistic or the "transnational bosses" of industry are working overtime against their own interests. History, combined with the market potential of interactive monitoring, tends to side with the bosses against the revolutionary promise. This tendency is not inherent in the technology itself, which, as Lessig (1999) points out, lends itself to diverse uses depending on how it is configured and deployed. Rather it is a reflection of the imperatives of the decisions we make about how to use those technologies and upon the pressures exerted by those in a position to develop and implement the Internet of the future. The increasing privatization of the network infrastructure combined with the recent spate of merger activity designed to exploit the commercial potential of the Internet suggests those applications that promise to be commercially successful (economically profitable) will likely take top priority.

All of which should come as no surprise to those familiar with the history of electronic media in the United

States–a history that has largely been the story of technological developments adapted to commercial ends. Often, as the critical history compiled by Solomon and McChesney (1993) suggests, this story has followed a pattern whereby non-commercial and community-oriented uses are displaced by commercial applications as the medium is developed over time. Despite the claims of those who herald the subversive potential of the Internet–whether in the realm of theory or popular culture–there is little evidence to suggest the Internet will enact a radical departure from this pattern. On the contrary, applications originally heralded as subversive of centralized corporate control, such as Napster and Freenet, are already being tailored to serve commercial purposes. If it is not difficult to imagine how interactive media could help promote more democratic forms of mediated communication, it is even easier to envision their role in allowing for ever more sophisticated techniques for the exploitation of the work of being watched.

Whether or not TiVo and its competitors are ultimately successful, they are helping to forge the commercial paradigm of interactive media as a means of inducing viewers to watch more efficiently. Subscribers to TiVo–or to the next generation of interactive television–will help lead the way into a digital enclosure wherein the work of watching can be as closely monitored as was the manual labor overseen by Frederick Taylor. The compilation of detailed demographic profiles of viewers will be facilitated by computer storage and retrieval techniques so as to ensure "wasted" watching will be kept to a minimum. The celebrants of mass customization envision this will take place in two ways: first, advertising will be tailored to match the demographics of each household and, eventually, of individual viewers; second, the line between content and advertising will continue to blur to the point of extinction.

If, as Gates (1996) suggests, every item of clothing, every location, and every product in a television show can–within the context of an interactive medium–double as both an advertising appeal and a clickable purchase point, *all* viewing counts as work in the sense outlined by Jhally and Livant (1986). Indeed, all activity of virtually any kind that can be monitored within this enclosure becomes work, as in the example of Mitch Maddox's DotCompound. In the case of interactive television, the added convenience of customization may well work to maximize not just the relative time devoted to the work of watching, but overall viewing time. The Replay Corporation has already found that "its customers watch, on average, three hours more television each week than they did before they got the box" (Lewis, 2000, p. 40).

The model of interactive television is generalizable to an increasing variety of activities that take place within the digital enclosure–and, to the extent that monitoring is involved, more and more activities seem to fall under the umbrella of consumption. The work of being watched can, in other words, help to rationalize the entire spectrum of consumption-related activities that have traditionally taken place beyond the monitoring gaze of the workplace. The general outlines of a commercial model for interactive media can thus be gleaned from the example of TiVo. Its main components are: customization (the disaggregation of demand curves, the direct linkage between a specific act of production and a targeted act of consumption), interactivity

(the ability to monitor consumers in the act of consumption), off-loading labor to consumers (who perform the work of generating their own demographic information), and the development of an on-going relationship with consumers (that allows for the exploitation of demographic information gathered over time).

Perhaps not surprisingly, several elements of this business model can be discerned in the development of a recent, supposedly subversive media technology: that of the music file-sharing utility Napster. As *Wired* magazine recently noted in a short aside to its celebratory coverage of the revolutionary potential of "peer-to-peer" networking, Napster represents a forward-looking business model for the on-line economy: "the system keeps customer relationships in-house, but outsources the lion's share of infrastructure back to a captive audience. It's . . . clear that a better music-industry strategy would be not to ban Napster's technology, but to make it their own" (Kuptz, 2000, p. 236). The German publishing giant Bertelsmann, with a major presence in the recording industry, clearly agrees, as evidenced by its decision to enter into a partnership with Napster. This arrangement should not be viewed as an aberration or a "sellout" on the part of Napster–whose ostensible assault on the record industry was not a subversion of market logic per se, but one more example of the "creative destruction" that Schumpeter (1947) famously attributed to the process of capitalist development: the replacement of an older business paradigm by a newer one.

Like TiVo, Napster-style technology allows for the comprehensive documentation of on-line consumption: it enables not only the monitoring of music selections downloaded by users, but, potentially, the retrieval of their entire on-line music inventory. It may well offer companies like Bertelsmann the ability to peer into subscribers' virtual CD-cabinets and eventually to catalogue their actual listening habits in order to market to them more effectively. Just as TiVo offloads the work of market research to consumers who add to their profile of preferences with every program they select, Napster potentially offloads this work to users who share files on-line. Moreover, as the *Wired* article notes, the Napster model also offloads infrastructure to consumers, whose home computers become the repository for the music files traded on-line. Napster technology makes possible the future envisioned by Gates (1996), wherein subscribers will be able to download music to portable digital devices and to pay according to how often they plan to listen to an individual track. In this respect the future of online music and television delivery envisioned by the industry represents the application of mediated interactivity to the emerging paradigm of surveillance-based customization. The result is the promise that consumers will be able to perform the work of being watched with even greater efficiency.

Conclusion

Rumors of the death of privacy in the 21st century have been greatly exaggerated. The increasingly important role of on-line surveillance in the digital economy should be construed not as the disappearance of privacy per se, but as a shift in control over personal information from individuals to *private* corporations. The information in question–behavioral habits, consumption preferences, and so on–is emphatically

not being publicized. It is, rather, being aggregated into proprietary commodities, whose economic value is dependent, at least in part, upon the fact that they are privately owned. Such commodities are integral to the exploitation of customized markets and the administration of the "flexible" mode of production associated with mass customization. Making markets more efficient, according to this model, means surpassing the paradigm of the mass market and its associated inefficiencies, including the cost of gathering demographic information, of storing inventory, and of attempting to sell a mass-produced product at a standardized price. Interactive media combined with the development of computer memory and processing speed allow for the comprehensive forms of surveillance crucial to the scientific management of consumption within the digital enclosure.

Like the factory workers of the early 20th century, the consumers of the early 21st century will be subjected to more sophisticated monitoring techniques and their attendant forms of productive discipline. The intended result is the stimulation of the forces of consumption–the indirect complement of the enhanced productivity associated with network technology. If the effort expended in shopping feels more and more like labor, if we find ourselves negotiating ever more complex sets of choices that require more sophisticated forms of technological literacy, the digital economy is poised to harness the productive power of that labor through the potential of interactivity.

At the same time, it is worth pointing out the potentially productive contradiction at the heart of the promise of the digital "revolution". If indeed its promise is predicated on the subversion of the very forms of market control it serves, this promise invokes a moment of critique. This is the flip side of Foucault's assertion of the subject as the site of the reiteration of conditions of power. It is the critical moment heralded by Butler's (1997) assertion that "Where conditions of subordination make possible the assumption of power, the power assumed remains tied to those conditions, but in an ambivalent way" (p. 13). Subjection/subjectification suggests that the conditions of power are not reproduced "automatically" but can be contested by the very forms of subjectivity they produce. From this perspective, it is telling that in the celebratory discourse of the digital revolution, centralized forms of market control are re-presented as homologous with their former opponent: totalitarian, centralized planning. Intriguing avenues for resistance open up in an era when the *New York Times* can liken the television network system to Stalinism. Such critiques might do well to start with the premises appealed to by the digital revolution: that there is a need for greater shared control of the economic and political processes that shape our lives in an age of seemingly dramatic technological transformation. Even if the promise of interactivity as a form of de-centralization and shared control fails to be realized (as is suggested by the flurry of record-breaking merger activity in recent years), its implicit assessment of the shortcomings of mass society serves as a potential purchase point for a critique of the very rationalization it enables. In this respect, the realization that the promise of interactivity bases its appeal on perceived forms of exploitation (that ought to be overcome) lines up with Foucault's observation that where there

is power, there is also, always, the potential for resistance.

Of central interest from a critical perspective, therefore, is the extent to which the marketers of the digital revolution continue to base its appeal upon the interpellation of an "active," empowered consumer. As consumers start to realize that their activity feels more like labor (filling out online surveys, taking the time to "design" customized products and services) and less like empowerment, it is likely that the explicit appeal to shared control will be replaced by the emerging trend toward automated, autonomous forms of "convenient" monitoring. This is the direction anticipated by futurists like Negroponte (1995) and the planners behind the MIT "Project Oxygen," whose goal is to make computers as invisible and ubiquitous as air. Their approach represents a retreat from the version of the "active" consumer associated with explicitly participatory forms of data gathering that characterized some of the early experiments in interactivity (the "design your own sneaker" or "write a review of this book" approach). Instead, the goal is the proliferation of an increasingly invisible, automated, and autonomous network. The agency of the active consumer is displaced onto what Negroponte (1995) calls "the digital butler." Interactivity will likely be increasingly reformulated as inter-*passivity* insofar as the goal is to make the monitoring process as unobtrusive as possible. The call to "action" will be displaced onto the ubiquitous technology, whose autonomy is designed to replace that of the consumer/viewer. Perhaps an early incarnation of this unobtrusive form of monitoring is the browser "cookie." Designed to increase convenience by allowing a site to remember a particular visitor so that customized settings don't have to be reconfigured, the "cookie" doubles as a digital butler for marketers, providing detailed browsing information about online consumers. It is hard not to imagine that the same would be true of other forms of digital butlers, whose allegiance remains rather more ambiguous than Negroponte implies. As these services become increasingly invisible and fade into the background, the increasingly monitored and transparent consumer comes to the fore.

In the face of the emergence of increasingly ubiquitous and invisible forms of monitoring, the appeal to privacy is often enlisted as a form of resistance. This type of resistance is rendered problematic by the fact that what is taking place–despite the recurring claim that the end of privacy is upon us–is the extensive *appropriation* of personal information. More information than ever before is being privatized as it is collected and aggregated so that it can be re-sold as a commodity or incorporated into the development of customized commodities. The enclosure and monopolization of this information reinforces power asymmetries in two ways: by concentrating control over the resources available for the production of subjects' desires and desiring subjects, and by the imposition of a comprehensive panoptic regime. The digital enclosure has the potential to become what Giddens (1981), following Goffman, terms a "total institution." The good news, perhaps, is that once the red-herring of the "death" of privacy is debunked, the enclosure of personal information can be properly addressed as a form of exploitation predicated on unequal access to the means of data collection, storage, and manipulation. A discussion of surveillance might then be couched in terms

of conditions of power that compel entry into the digital enclosure and submission to comprehensive monitoring as a means of stimulating and rationalizing consumption. The way in which the promise of participation is deployed as an incentive to submit to the work of being watched might be further illuminated by the extension of models of "concertive control" (Papa, Auwal, & Singh, 1997; Tompkins & Cheney, 1985) to the realm of consumer labor. Additionally, such a discussion would necessarily address the questions of who controls the means of surveillance and to what ends, how this power is reproduced through subjection to interactive monitoring, who benefits from the work of being watched, and who is compelled to surrender control over personal information in exchange for a minimum "wage" of convenience or customization. For too long, the discussion of mediated interactivity has tended to assume that as long as the Internet allowed unfettered interactivity, questions of network control and ownership were rendered moot by the revolutionary potential of the technology itself. Perhaps it is not too much to hope that an understanding of the relation of interactivity to disciplinary surveillance and, thus, to the labor of being watched might work to counter the unwonted euphoria of the utopian cyber-determinists and to refocus the question of the fate of collective control over personal information. Otherwise, we may all find ourselves toiling productively away in the DotCompound, narrowcasting the rhythms of our daily lives to an ever smaller and more exclusive audience of private corporations. □

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