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The Age of Egocasting

Christine Rosen

Great inventions usually summon images of their brilliant creators. Eli Whitney and the cotton gin; Alexander Graham Bell and the telephone; Thomas Edison and the phonograph. But it is a peculiar fact that one of the inventions that has most influenced our daily lives for the past many decades is bereft of just such a heroic, technical visionary: the television. Schoolchildren aren't told the odyssey of Philo T. Farnsworth, the Mormon farm boy from Iowa who used cathode ray tubes to invent an "image dissector" in the 1920s, or the tale of Russian immigrant Vladimir Zworykin, who worked with the Radio Corporation of America on similar techniques around the same time. Few people know that the first commercial television broadcast occurred at the 1939 World's Fair in New York, where RCA unveiled its first television set.

What is true of the television set is also true of its most important accessory, the device that forever altered our viewing habits, transformed television programming itself, and, more broadly, redefined our expectations of mastery over our everyday technologies: the remote control. The creation and near-universal adoption of the remote control arguably marks the beginning of the era of the personalization of technology. The remote control shifted power to the individual, and the technologies that have embraced this principle in its wake—the Walkman, the Video Cassette Recorder, Digital Video Recorders such as TiVo, and portable music devices like the iPod—have created a world where the individual's control over the content, style, and timing of what he consumes is nearly absolute. Retailers and purveyors of entertainment increasingly know our buying history and the vagaries of our unique tastes. As consumers, we expect our television, our music, our movies, and our books "on demand." We have created and embraced technologies that enable us to make a fetish of our preferences.

The long-term effect of this thoroughly individualized, highly technologized culture on literacy, engaged political debate, the appreciation of art, thoughtful criticism, and taste-formation is difficult to discern. But it is worth exploring how the most powerful of these technologies have

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already succeeded in changing our habits and our pursuits. By giving us the illusion of perfect control, these technologies risk making us incapable of ever being surprised. They encourage not the cultivation of taste, but the numbing repetition of fetish. And they contribute to what might be called "egocasting," the thoroughly personalized and extremely narrow pursuit of one's personal taste. In thrall to our own little technologically constructed worlds, we are, ironically, finding it increasingly difficult to appreciate genuine individuality.

Master and Commander

Engineers created the first home remote control devices in the 1950s. They were rudimentary instruments that connected to the television with a wire and had unimaginative names like the "Remot-O-Matic" and the "Tun-O-Magic." Zenith called its device, aptly, the "Lazy Bones." These wired models offered viewers basic features, such as turning the television on and off, but they were not popular with consumers because the wires connecting the device to the set were cumbersome and often suffered from wear. Within a few years, several companies released more ambitious controls with appropriately futuristic names. A 1955 version of the remote, called the "Flash-Matic," was wireless, using a beam of light aimed at photocells in the corners of the television set to change channels and adjust volume. Advertisements for the Flash-Matic pictured a woman, transfixed before the television, her right hand clutching a remote control that is directing a sci-fi laser beam at the TV. Unfortunately, the supposedly sophisticated photo cells on the television were unable to distinguish the remote control's beams from sunlight, and frustrated Flash-Matic owners found their television tuners oscillating to nature's rhythms rather than their own.

In 1956, a Zenith engineer named Robert Adler solved this problem by using ultra-sonic technology to create the Space Command 400 Remote Control. This remote, which Adler patented, used aluminum rods and tiny hammers to create the pitched sounds that the television set interpreted as "off" or "on" or "channel up" or "channel down." The sounds emitted were inaudible to humans (although not to dogs, which were known to howl painfully as the Space Command went about its business) and the device itself required no batteries. The Space Command was the first reliable remote control device, convenient and well-designed, and Zenith had high hopes for its appeal to consumers, as Adler recognized in numbing prose in his patent application: "It is highly desirable to provide

a system to regulate the receiver operation without requiring the observer to leave the normal viewing position." In other words, if Americans were given an affordable way to remain comfortably immobilized while they consumed their televised entertainment, they would choose it.

A slew of copycat devices soon followed, but the increased cost of fitting televisions to receive the remote's signals kept the remote control from becoming immediately popular with consumers. According to the Consumer Electronics Association, it was 1985 before more televisions were sold with remotes than without. By the beginning of the twenty-first century, however, 99 percent of all television sets and 100 percent of all VCRs sold in the United States came with remote control devices, and infrared and digital technology had replaced Adler's miniature ultrasonics. In 2000, the average household contained four remote controls.

There is a Pavlovian brilliance to the remote control. It is light and easily manipulated with one hand. It responds immediately to any whim with the merest physical effort—more sound, more light, different image, just a tap of the finger or thumb will suffice. Even children are quickly able to master its functions. Sociologists Kathy Krendl and Cathryn Troiano studied fifty toddlers to find out if they knew what a remote control device (RCD) was, how well they could use it, and whether or not their parents limited their use. Their results are startling: "Fifty-two percent of the children said they used the RCD themselves" and "none of the children mentioned specific rules related to RCD use." One subject, three-year-old Jimmy, was incapable of articulate conversation and could neither recognize numbers nor tell time, but he "had mastered the basics of RCD use." He "primarily used the RCD to change channels on the TV in order to watch his favorite programs," and when told the time, clever Jimmy "knows if his program should be airing." Krendl's and Troiano's study underscores the technical simplicity of the remote control. "Preschool children are able to use the technology even at very young ages," and "reading, time-telling, and counting skills are not necessary for using the device effectively."

Despite the conventional wisdom, sociologists have found only modest differences in remote control use between men and women. Elizabeth Perse and Douglas Ferguson found that men "have more positive perceptions of remote control devices," in part because the remote control facilitates their pursuit of greater variety over familiarity. A 1997 report from the research firm Knowledge Networks/SRI observed that men were somewhat more likely than women to change channels during prime-time

viewing (37% of men changed channels ten times or more, while only 24% of women did). Nor are there dramatic disparities among different class, ethnic, and racial groups. Lawrence Wenner and Maryann Dennehy found that "demographic variables do not contribute in a meaningful way to explanations of RCD activities" among the students they studied. Rather, it is a basic human impulse—novelty-seeking—that plays the primary role in people's use of the remote control.

The Age of Choice

The original purpose of the remote control, as Zenith's president put it at the time of its creation, was to "tune out annoying commercials." But it was a federal regulation many years later that made the remote control the indispensable household object that it is today. The Federal Communications Commission's 1972 "Open Skies" decision deregulating satellite communications allowed cable television to become a popular reality in the U.S., as it rapidly did. As one observer noted, "the only people who had an inarguable, demonstrable need for an RCD for their television before the 1970s were the debilitated." But with the rapid increase in television channel offerings, we all needed the remote simply to navigate television's many new options. Cable television dramatically increased the range of choices, but it was the remote control, according to James Walker and Robert Bellamy, which "made it easier for viewers to be choosy."

Taken together, the remote control, combined with the proliferation of entertainment options generated by cable TV, encouraged a new kind of viewing behavior: grazing. Recounting his surveillance of one typical user, researcher Paul Traudt recorded his subject saying the following: "Okay… I'm lookin' for something that's catching my eye. I'll just hold the plus channel and I just go right through all the … every channel until I see something… I say, 'Okay, let's stay here for a couple of seconds to see what's going on.'" Another research subject said, "I watch bits and pieces, take whatever's there and then go look, ya know, almost foraging for programming." So natural an activity is channel-surfing that Traudt found that his subjects often gestured as if holding an imaginary remote control, depressing imaginary buttons while discussing their viewing habits. With cable television our fertile savannah and the remote control our guide, we quickly became, as the title of a 1989 report conducted by *Channels* magazine suggested, "A Nation of Grazers."

It is worth noting that the word "grazing" is normally applied to the consumption activities of herd animals, unlike "browsing," for example,

which is the verb of choice for perusing library shelves. (We also use "browsing" to describe the way we examine the Internet: platform software such as Netscape or Explorer are the technical browsers; we choose among the results that they have retrieved). Grazing suggests a steady but laconic approach to consumption, and research by Walker and Bellamy found that "clearly the search for something better was the dominant motivation."

Although television grazing is the behavior we most indulge with our remote controls, we can control many other things with the touch of a button. I once watched a toddler point to a wood-burning fireplace and demand, "Turn it on!"—not out of some childish muddle about how to start a fire, but as a rational act, since in his house the only way to enjoy the gas fireplace was, literally, to turn it on with a remote control. So-called "smart remotes"—or universal remotes—can control upwards of twenty different devices in the home, including television and stereo equipment, air conditioners, ceiling fans, window treatments, and lights. Thinking about the next generation of smart remotes, sociologist Carrie Heeter writes, "Imagine coming home and saying 'relax me,' 'amuse me,' 'teach me,' or 'arouse me' to the TV set." Parents could encourage smarter TV viewing by their children, with remote controls that "engage the children in question-and-answer discussions about the program they just watched, helping them recognize stereotypes, talking about the consequences of violence, and so on.… The future belongs to 'smart' remotes."

Our grazing television behavior has moved some critics to view the remote control as a technological paintbrush, a tool that offers great creative possibility for its owner. Umberto Eco once praised the remote as a device that allows people to "transform something that was meant to be dogmatic—to make you laugh, to make you cry—into a free collage." The remote "can make the television into a Picasso." Others are less enthusiastic, calling the frenzied grazing of remote control users a "masturbatory art."

Even our furniture has adapted to the habits inculcated by the remote control. The manufacturer Floral City Furniture, for example, had a knack for capturing the zeitgeist in its designs. In 1928, as the telephone was changing the way people communicated, the company crafted a piece called "the Gossiper," a settee that "allowed people to sit, to phone, and to store things." But it was the recliner that made them famous, prompting the company to change its name to the more apt La-Z-Boy. The company explicitly links its history to Americans' increased addiction to television: "Known as the media decade," the La-Z-Boy company website notes, "the

1980s were defined by sitcoms, spin-offs, and cable, which increased our television-viewing options to an unprecedented 56 channels. People spent more time than ever in front of their TVs." By the late 1990s, La-Z-Boy was manufacturing the "Oasis" chair, which featured a motorized recliner, a beverage cooler, massage function, and a built-in telephone with caller ID—a comfortably tricked out bunker for the heavy television viewer who can't be bothered to interrupt his entertainment to answer the phone, walk to the kitchen, or pull out his own footrest. La-Z-Boy's print advertisements feature remote controls lovingly cradled in channel-stitched cushions, with satisfied customers, feet up, smiling vacantly at the television screen. It is the modern still life: Homunculus with Remote.

The remote control has influenced not only *how* we watch television—turning us into savvy consumers, postmodern artists, or herd-like grazers, depending on your perspective—but also *what* we watch on television. Television programmers reacted swiftly to the change in viewing behavior facilitated by the remote control. As Susan Tyler Eastman and Jeffrey Neal-Lunsford have found, producers soon realized the importance of "grabbing the viewers' attention at the beginning of a program," with the goal of instilling "a sense of loyalty or commitment" as quickly as possible. The remote control made television programming a more Darwinian enterprise. Turnover rates for new programs are high, and there "is an even shorter time for new programs to establish an audience before cancellation."

Merrill Brown, a former editor at *Channels* magazine who coined the word "grazing," believes that remote controls are largely responsible for many of the changes in programming adopted since the 1980s: the fast-paced, quick-edited, herky-jerky camera angles of MTV and other networks; the frequent cross-over appearances by television stars; the increase in expensive opening scenes and special effects. As Marshall Cohen of MTV described, "Programming is responding to grazing … there is more cutting, shorter scenes, faster-paced shows, and more shorthand visual techniques." Other tactics include "hot switching," or moving directly from one program into the next without a commercial break, and "cold openings," where a program begins without any opening credits. And those ubiquitous network logos that appear in the lower right-hand corner of the television screen during programming are believed to offer subtle reminders to grazing viewers of their favorite channels.

In the end, it is difficult to find a single television program on commercial TV that has not been designed to respond to remote control use. The

device that began life as an accessory to television has now succeeded in transforming television content itself. The lavish first scenes of popular television dramas such as *CSI*, meant to hook the viewer early, and the quick cutaways and montage techniques of reality TV, are all responses to the power of the remote control. Like disciplined border collies, television executives devised creative techniques to manipulate the herd of television viewers who were refusing to view programs in their entirety—all without members of the herd ever feeling that coercive nipping at their heels.

The New Skinner Box

Despite its ability to allow viewers to control *what* they watched on television, the remote could do little to control *when* people watched. Viewers were still beholden to scheduling by network programmers. The ability to "time-shift" by recording a program to watch later was one of the main appeals of the VCR, which became inexpensive and popular in the 1980s. But recording one show while watching another often seemed to require a small army of video recording devices or a PhD in computer programming; even then, the technology was limited. This changed with the advent of the digital video recorder (DVR), a technology that has given us even greater control over television viewing than the remote, but is also impossible to imagine without it. Part video recorder, part computer, the DVR (or PVR, personal video recorder, as it is also known) can compress hundreds of hours of broadcast television programming and store it on a small hard drive for later retrieval. Most DVRs also allow viewers VCR-like control over live television, such as pause, slow motion, and rewind functions.

Only a small minority of homes currently own DVRs—about four percent, according to marketing research firm Knowledge Networks. As *Advertising Age* recently noted, this means that "more homes in the U.S. have outhouses" than these devices. But a similarly meager early market penetration was true for things such as Internet access, which quickly became much less expensive and much more popular. And like the Internet, DVRs are poised to experience rapid growth and acceptance. According to Forrester Research, 17 percent of households report interest in owning DVRs, and by next year, eleven million households are expected to purchase a DVR. Within five years, an estimated 41 percent of homes in the U.S. will have these devices.

The most popular DVR is TiVo, whose logo is a slightly anthropomorphized television set with clownish feet, cute antennae, and a coy

smile. The tone of TiVo's marketing campaign flatters the busy hyper-individualist in all of us—TiVo is all about you, as the "I" sandwiched between the letters "T" and "V" in the device's name suggests. With a knowing helpfulness, TiVo's trademarked slogan declares, "You've got a life. TiVo gets it." TiVo understands your desire to watch what you want, when you want to, rather than waste time randomly grazing. A secondary slogan—"Do More. Miss Nothing"—endorses the time-saving function of TiVo explicitly. But these slogans are not entirely reassuring when you consider their underlying assumptions: that you "miss" something if you don't watch television, for example. In practice, what TiVo really "gets" about your life (just as Adler understood about the remote control) is the fact that you're likely to spend more of it watching television if television viewing can be made to cater comfortably to your whims.

And TiVo can learn a great deal about your whims. Because TiVo has a hard drive, like a computer, it can store your viewing habits. It sometimes asks you to opine on different programs by pushing the "thumbs up" or "thumbs down" buttons on your remote, all in an effort to hone your preferences. By tracking your tastes in this way, TiVo is able to "surprise" you with other programs it thinks you will enjoy, a function that sometimes goes hilariously wrong. In 2002, *Wall Street Journal* reporter Jeffrey Zaslow mined the dangers of TiVo's taste predictions by talking to baffled customers whose TiVos thought they were gay, or neo-Nazis, or stalkers—all thanks to their occasionally eclectic viewing habits. TiVo can also send information about your viewing habits back to TiVo headquarters, which it does frequently. After Janet Jackson's titillating "wardrobe malfunction" during the 2004 Super Bowl, TiVo announced that it was the "most-watched moment to date" by TiVo users (such slow-motion replays of sexualized content have been dubbed "perv-mo" by TiVo users).

Many TiVo customers were startled to learn that TiVo compiles detailed information about its subscribers. Indeed, TiVo recently inked a deal with Nielsen Media Research to monitor and record its customers' viewing habits. As Michael Lewis noted in an early and elegant analysis of TiVo in the *New York Times Magazine* in 2000, "They accumulate, in atomic detail, a record of who watched what and when they watched it. Put the box in all 102 million American homes, and you get a pointillist portrait of the entire American television audience." Concerned about possible infringements on privacy, Reps. John Dingell, Edolphus Towns, and Edward Markey sent a letter to the Federal Trade Commission in 2001, asking them to investigate whether TiVo was engaged in "unfair or

deceptive practices" when it claimed it did not use individually identifiable data about its customers. The letter noted, "Apparently, the only thing stopping TiVo from identifying the viewer is a procedure the company has elected to perform once the personally identifiable data is already transferred and in TiVo's possession."

One pattern of behavior that clearly interests TiVo analysts is the tendency to skip over ads. A recent report by Forrester Research found that TiVo and other DVR users skip 92 percent of commercials. Most viewers simply fast-forward through commercials on their TiVos, though interestingly, a study by the Advertising Research Foundation has found that such fast-forwarding may not blunt the force of a commercial's message: "You will recall it just as well as if you had seen the whole thing." Still, one can imagine a significant transformation in the advertising industry as TiVo becomes a mainstream technology, and some have already speculated that Internet and print advertising might be the beneficiaries.

Ironically, the ease with which TiVo allows users to avoid commercials has encouraged a more insidious form of advertising—product placement within programs themselves. Savvy TiVo users on an e-mail listserv recently noted the placement of large Coca-Cola cups at the judges' table on *American Idol* and frequent glimpses of the Ford logo on the cars driven by the detectives on *Law & Order*. Writing in *Folio*, Michael Learmonth catalogued many product endorsements—from Home Depot, Labatt's beer, Pepsi, and Nokia—on programs such as *Best Damn Sports Show Period* and youth-oriented programming on the WB network. Other technology observers have predicted that we'll soon witness the birth of the wicked stepchild of TiVo and QVC, with interactive television and home shopping channels merging to allow viewers to purchase the clothes, jewelry, or kitchen gadgets they're seeing on television programs—all with just a press of a button on their remote controls.

TiVo Nation

The enthusiasm for TiVo is at times absurd. "TiVo is the greatest thing since wheat," former San Francisco 49ers quarterback Steve Young enthused. "TiVo is the most amazing thing ever invented!" says Rosie O'Donnell. Documentary filmmaker Pete Jones recently declared that, "TiVo has changed my life more than children. It's the only thing in my life that I can count on week after week." During a question and answer session at an electronics show in 2003, Federal Communications Commission Chairman Michael Powell described TiVo as "God's machine."

Far from the madding celebrity crowd, TiVo zeal also runs high. One man told Knight-Ridder news service, "Omigod, you can have my TiVo when you pry it from my cold, dead fingers!" "I've converted. It's my new religion," another said. "I was a Jew, but not anymore. I'm now a TiVo." A TiVo spokesperson described how devoted users send in photographs of TiVo snowmen, jack-o-lanterns carved to resemble the TiVo logo, and, in perhaps the most chilling image, a snapshot of an infant dressed up as the unique, peanut-shaped TiVo remote control. "There's such a unique emotional connection between people and this product," a TiVo spokesperson told the *Contra Costa Times*, in a comedy of understatement.

TiVo enthusiasts on one community listserv unabashedly refer to themselves as the "TiVo Army," adopting military-style ranking based on the number of hours of TV they have stored on their devices (0-19 is a private, 20-199 a lieutenant, and so on, until you reach 5000 hours and are deemed a colonel). After their names, many contributors to the listserv include detailed listings of the models and hours programmed on each of their TiVo units. Many TiVo users on the forum own more than one TiVo, which appears to be common among users. A writer for the *Chicago Tribune* noted that he and his wife each have their own TiVo, so that he can watch ESPN's *SportsCenter* upstairs and "my wife can be downstairs zipping through hours of home-designing shows," prompting one to wonder what, exactly, they ever do together in their leisure time.

Speaking to *Newsweek* in 2003, TiVo's CEO, Michael Ramsay, noted the device's "amazing evangelical following." "People say it changes their lives and helps them manage their children's time. What we have tapped into here is really a lifestyle phenomenon where people believe that TiVo is ... giving them more control and more choice. And that's a good thing in this busy day and age." One man, interviewed by the *New York Times*, even credited TiVo with an improvement in his son's academic performance. "Before we got the TiVo, my son was getting C's and D's in school because he was staying up late to watch his shows and going to school half-awake." With TiVo, however, he's now getting more sleep and his grades are improving. TiVo undoubtedly changes children's experience of television. One blogger, whose daughter was three months old when the family purchased their first TiVo, "gets quite confused when we are watching a non-TiVo TV, and she asks to watch 'a kids' show,' and we have to explain that this TV won't do what ours at home does." She thinks the television is broken. Another mother whose child has grown up watching DVDs said of her four-year old, "She just takes for granted that you can

always cue up the song or scene that you want, or watch things in whatever order you want."

In a survey of their subscribers, TiVo found that 98 percent of them "couldn't live without" their TiVo and "another 40 percent said they would sooner disconnect their cell phone than unplug their TiVo." It is butler, boyfriend, playmate, and therapist manqué.

The company's goal is to make TiVo the "focal point of the digital living room," although it hastens to add that this "doesn't make the television the centerpiece of our homes." In fact, television *has* become the centerpiece of many American homes. One company is now manufacturing a hi-tech television mirror so that we can watch TV during our daily bathroom routines. Another recent advertisement pictured a family gathered around the fireplace, although not in a traditional scene of family conviviality. Rather than looking at each other, their gazes are all fixed on a point above the fireplace: they are staring at the large, flat-screen television that now dwarfs their hearth.

If our advertisements are any guide, we are using devices such as TiVo less as efficient, multi-tasking, modern assistants than as technological enablers that help us indulge in excesses of passive spectacle. TiVo does not free us to watch less TV by eliminating waste; it seduces us with more TV by making television a more perfectly self-centered experience.

Preliminary studies, such as Forrester Research's report, "The Mind of the DVR User," have found that although DVR users adapt quickly to the technology, they also report watching more television after purchasing one. A writer for DTG, the industry association for digital television in the U.K., noted in 2000 that "TiVo-equipped households watch 3 hours more TV a week than other households—but they don't watch scheduled TV anymore." Another study by Next Research found that the number was even higher, with DVR users watching five to six hours of additional television per week. Talking to a family enthusiastic about the DVR, Ken Belson of the *New York Times* recently reported, "the Huntleys did not anticipate how quickly the DVR would transform their viewing habits." As the satisfied Mrs. Huntley describes, "We thought we wouldn't need more than 30 hours when we had the first machine, but now we think that 120 hours is not enough." Even Leo Laporte, a TiVo enthusiast who has written a *Guide to TiVo*, concedes, "We'd like to think that all of the time saved not watching shows in real-time and skipping over commercials is being used for the betterment of humankind.... But in point of fact, it's probably just resulted in watching more TV." One recovering TiVo addict

called it "silicon crack" and said that after five months of heavy TiVo use, he and his wife "snapped out of it to realize that we were watching a helluva lotta TV. Hours and hours of it per day."

TiVo's marketing language encourages its users to overlook this salient fact. On its website, it emphasizes that the machine records hundreds of hours of programming for you, "all while you're out living your life." But it never says how we should characterize the time spent *actually watching* those hundreds of hours of shows when we're back at home. In "The TiVo story," the company's perky founding narrative, the authors write, "TiVo's overriding philosophy is that everyone, no matter how busy, deserves to enjoy the home entertainment of their choosing, at their convenience."

This avoids the more important question of whether watching TV is really what we should be spending so much time doing in the first place. We are talking about the technology, not about what it encourages us to do. Like e-mail, TiVo offers us a more efficient way to perform a particular task, but in this case that "task" is watching television. For those who worry about the negative impact of television, this is akin to celebrating the invention of an easier and more effective syringe for injecting heroin.

Television on Demand

Meat powder made Pavlov's dog drool; television does something similar to our brains. As an extensive treatment of television viewing habits in *Scientific American* noted in 2002, "Psychologists and psychiatrists formally define substance dependence as a disorder characterized by criteria that include spending a great deal of time using the substance; using it more often than one intends; thinking about reducing use or making repeated unsuccessful efforts to reduce use; giving up important social, family, or occupational activities to use it; and reporting withdrawal symptoms when one stops using it." Researchers have found that "all these criteria can apply to people who watch a lot of television."

Even if you don't believe that there is such a thing as "television addiction," Robert Kubey and Mihaly Csikszentmihalyi have compiled some startling statistics about our viewing habits: they found that "on average, individuals in the industrialized world devote three hours a day" to watching television, which is half of their total leisure time. We spend more time watching television than doing anything else but sleeping and working. Using an "Experience Sampling Method" to track people's feelings about television, Kubey and Csikszentmihalyi found that people watching TV

reported "feeling relaxed and passive," a state that electroencephalograph studies of TV watchers have supported; viewers experience "less mental stimulation, as measured by alpha brain-wave production, during viewing than during reading." This pleasurable sense of relaxation ends as soon as the TV is turned off; what doesn't end is "passivity and lowered alertness."

Why is this the case? One explanation is a biological condition called the "orienting response," which Ivan Pavlov identified in 1927. As the *Scientific American* study notes, "the orienting response is our instinctive visual or auditory reaction to any sudden or novel stimulus," and includes the dilation of blood vessels to the brain and the slowing of the heart. Researchers such as Byron Reeves of Stanford University and Esther Thorson of the University of Missouri have studied brainwaves to determine how television activates the orienting response and found that it does so with great facility; this explains why some people lament that they can't *not* watch a television when it is on. Babies as young as six weeks have been found to attend to the images flashing across the TV screen. "In ads, action sequences, and music videos, formal features frequently come at a rate of one per second, thus activating the orienting response continuously," *Scientific American* notes.

An overworked orienting response can have negative consequences for our mental and physical state. Two researchers at Yale University found that television viewing contributes to decreased attention spans and impatience with delay, as well as feelings of boredom and distraction. "Heavy viewers report feeling significantly more anxious and less happy than light viewers do in unstructured situations, such as doing nothing, daydreaming or waiting in line."

Nevertheless, we continue to watch a lot of television, and to induct our children into the culture of viewing. In his trenchant critique of television in *Amusing Ourselves to Death*, Neil Postman noted, "We are by now well into a second generation of children for whom television has been their first and most accessible teacher and, for many, their most reliable companion and friend." Postman wrote this in 1985, when researchers such as Gavriel Salomon had already concluded that "the meanings secured from television are more likely to be segmented, concrete and less inferential, and those secured from reading have a higher likelihood of being better tied to one's stored knowledge and thus are more likely to be inferential." This is especially true for children. An April 2004 study in *Pediatrics* concluded that "hours of television viewed per day at both ages one and three was associated with attentional problems at age seven," even

controlling for factors such as socioeconomic status. "Limiting young children's exposure to television as a medium during formative years of brain development," they concluded, "may reduce children's subsequent risk of developing ADHD" (attention deficit/hyperactivity disorder).

But scientific study and cultural criticism have never succeeded in persuading Americans to give up their televisions. "Throughout our history with The Box," argues Bruce Gronbeck, "we have believed fervently that it brings good, not bad; that even when it's bad it can be controlled; and that when we cannot control ourselves a technology will arise to help us do it." TiVo is precisely this kind of technology. By helping us control what we watch and when we watch it, we mistakenly believe that we are also exercising a broader self-control over our television viewing habits; by only watching what we want to watch, we reason, we will watch less. But early evidence suggests that this is not the case. TiVo users actually end up watching more hours of television every week, including shows they might have skipped without regret if they were not available "on demand." By emphasizing the efficiency of the technology—rather than what the technology is making more efficient—we avoid having to ask whether we really should be watching so much television in the first place, or reflect upon what television does to our intellect and character.

Pod People

The remote control and TiVo are not the only ultra-personalized technologies to captivate us in recent years. One of the earliest technologies of individualized entertainment was the Walkman, the portable radio and cassette player introduced by Sony in July 1979. Marking the twenty-fifth anniversary of the Walkman recently, a writer for the *Philadelphia Inquirer* recalled his enthusiasm for the "mix tape" that the Walkman promoted: "Countless new soundtracks beckoned. I made running tapes, sunning tapes, sauntering tapes, strutting tapes." He was no longer "a prisoner of Donna Summer or Molly Hatchet on the radio." He created personal, portable soundtracks for life.

Not everyone was pleased by this new development, however, and some critics expressed concern that the Walkman would dramatically transform our experience of music for the worse. As music columnist Norman Lebrecht argued, "No invention in my lifetime has so changed an art and cheapened it as the Sony Walkman." By removing music from its context—in the performance hall or the private home—and making it portable, the Walkman made music banal. "It becomes a utility, undeserv-

ing of more attention than drinking water from a tap." The Walkman was no doubt aided in this transformation by the rise of "elevator music." But the Walkman seemed to make everywhere we go an elevator and all music into elevator music. As Lebrecht laments, it "devalued magnificence and rendered it utilitarian."

Today, the iPod—the portable MP3 player that can store thousands of downloaded songs—is our modern musical phylactery. Like those little boxes containing scripture, which Orthodox Jewish men wear on the left arm and forehead during prayers, the iPod has become a nearly sacred symbol of status in certain communities. Introduced only three years ago by Apple computer, the iPod is marketed as the technology of the disconnected individual, rocking out to his headphones, lost in his own world. In certain cities, however, the distinctive white iPod headphones have become so common that one disgusted blogger called them oppressive. "White headphone wearers on the streets of Manhattan nod at each other in solidarity, like members of a tribe or a secret society."

When he introduced the iPod, Apple CEO Steve Jobs claimed that "listening to music will never be the same again." Judging by the testimonials of iPod users, this was not merely marketing overstatement. One iPod enthusiast spoke of his device in tones one usually reserves for describing a powerful deity: "It's with me anywhere, anytime.... It's there all the time. It's instant gratification for music.... It's God's own jukebox." Like TiVo, iPod inspires feverish devotion in its users.

The iPod is not yet a mass technology, due partly to its fairly steep price: the less expensive iPod mini still costs $250. Like TiVo, it is still a technology for the minority—only about one percent of the American population owns one. But like the VCR and the cell phone before it, increased competition and lowered manufacturing costs should eventually drive down prices, at the same time that downloading music from the Internet continues to grow. One estimate from *Newsweek* suggested that by 2008, one third of all songs purchased will be from downloads. The iPod and its competitors are clearly here to stay.

Like TiVo, control is the reason people give when asked why they love iPod. In a February 2004 interview with *Wired News*, Michael Bull, who teaches at the University of Sussex and writes extensively about portable music devices, argued, "People like to be in control. They are controlling their space, their time and their interaction.... That can't be understated—it gives them a lot of pleasure." Like TiVo, this degree of control, once experienced, inspires great loyalty; the praise of iPod users echoes

that of TiVo owners, both of whom often remark on how they can't believe they ever lived without the devices. But because the iPod is a portable technology, just like the cell phone, it has an impact on social space that TiVo does not. Those people with white wires dangling from their ears might be enjoying their unique life soundtrack, but they are also practicing "absent presence" in public spaces, paying little or no attention to the world immediately around them. Bull is unconcerned with the possible selfishness this might foster: "How often do you talk to people in public anyway?" he asks.

This fear of becoming too disconnected from the world around them has prompted some iPod fans to wean themselves from the device. Writing in the *New York Observer* this past summer, Gabriel Sherman discovered the hazards of iPod addiction when he missed his subway stop. "In the past year," he wrote, "I had grown increasingly numb to my surroundings, often oblivious to the world around me, trapped in a self-imposed bubble." His iPod was "like a drug," he confessed, it "had come to dominate my daily existence." He found he was missing the "urban orchestra playing around me … except for better bagels, I had traded one kind of suburban isolation for another."

Some also worry about iPod's effect on music itself, not only on the listeners. The iPod facilitates a "sampling" approach to music. You can listen to an entire Mahler symphony straight through; but you can also enjoy Bach, the Buena Vista Social Club, and the memoirs of a Buddhist acolyte in one sitting. A touch of Verdi and Strauss can be followed by a healthy dose of Eminem and Kelis. It's all up to you. Like TiVo, iPod offers us an unprecedented level of control over what we want to experience, and this is the feature of the technology most often discussed and praised. But the iPod, like the Walkman, can be leveling or narrowing as well as freeing. It erodes our patience for a more challenging form of listening. The first time a person sits through an opera, patience is tested; they might wonder whether hour after hour of *Die Meistersinger* is really worth it. But with experience and patience comes considerable reward—the disciplined listener eventually achieves a different understanding of the music, when heard as its composer intended. Listening to "Mahler's Greatest Hits" is not the same thing. Sampling is the opposite of savoring.

More profoundly, iPod might change the way we experience the *creation* of music. As portable, high-quality music becomes more readily available, it might dampen our enthusiasm for seeing music performed live or reduce live music to mere spectacle. Listening to live music is a differ-

ent pleasure from merely donning headphones, in part because the listening happens under circumstances not under the complete control of the listener. To watch tension and release move across the face of a solo pianist or to see the rock musician strut lithely across the stage—to watch performers physically caught up in the musical moment—adds an entirely different layer of meaning to the experience of listening. In live performance we listen to music in a way that is less passive and less mundane. The convenience of iPod and its ability to facilitate easy listening is undeniable; but we should not let its convenience discourage us from seeking the distinct pleasure of hearing music made, not merely replayed. And we should be careful that our desire for convenient music does not make all music simply convenient—transforming what musicians do, how they work, and what they write to appease our iPod-driven demand.

Egocasting

What ties all these technologies together is the stroking of the ego. When cable television channels began to proliferate in the 1980s, a new type of broadcasting, called "narrowcasting," emerged—with networks like MTV, CNN, and Court TV catering to specific interests. With the advent of TiVo and iPod, however, we have moved beyond narrowcasting into "egocasting"—a world where we exercise an unparalleled degree of control over what we watch and what we hear. We can consciously avoid ideas, sounds, and images that we don't agree with or don't enjoy. As sociologists Walker and Bellamy have noted, "media audiences are seen as frequently selecting material that confirms their beliefs, values, and attitudes, while rejecting media content that conflicts with these cognitions." Technologies like TiVo and iPod enable unprecedented degrees of selective avoidance. The more control we can exercise over what we see and hear, the less prepared we are to be surprised. It is no coincidence that we impute God-like powers to our technologies of personalization (TiVo, iPod) that we would never impute to gate-keeping technologies. No one ever referred to Caller ID as "Jehovah's Secretary."

TiVo, iPod, and other technologies of personalization are conditioning us to be the kind of consumers who are, as Joseph Wood Krutch warned long ago, "incapable of anything except habit and prejudice," with our needs always preemptively satisfied. But it is worth asking how forceful we want this divining of our tastes to become. Already, you cannot order a book from amazon.com without a half-dozen DVD, appliance, and CD recommendations fan-dancing before you. And as our technologies

become more perceptive about our tastes, the products we are encouraged to consume change as well. A story in the *Wall Street Journal* recently noted that broadcasting companies such as Viacom are branching out into book publishing. A spokesman for Viacom's imprint, which targets 18-34 year olds, told the *Journal*, "Our readers are addicted to at least one reality TV show, they own one iPod, and they are in love with their TiVo." Companies are capitalizing on this knowledge by merging their products. Viacom's contribution to literature are books that spin off of television shows: *He's Just Not That Into You: The No-Excuses Truth to Understanding Guys*, written by a former *Sex and the City* writer, and *America (The Book)*, by *The Daily Show's* faux-naïf anchorman, Jon Stewart, for example.

University of Chicago law professor Cass Sunstein engaged this dilemma in his book, *Republic.com*. Sunstein argues that our technologies—especially the Internet—are encouraging group polarization: "As the customization of our communications universe increases, society is in danger of fragmenting, shared communities in danger of dissolving." Borrowing the idea of "the daily me" from MIT technologist Nicholas Negroponte, Sunstein describes a world where "you need not come across topics and views that you have not sought out. Without any difficulty, you are able to see exactly what you want to see, no more and no less." Sunstein is concerned about the possible negative effects this will have on deliberative democratic discourse, and he urges websites to include links to sites that carry alternative views. Although his solutions bear a trace of impractical ivory tower earnestness—you can lead a rabid partisan to water, after all, but you can't make him drink—his diagnosis of the problem is compelling. "People should be exposed to materials that they would not have chosen in advance," he notes. "Unplanned, unanticipated encounters are central to democracy itself."

Sunstein's insights have lessons beyond politics. If these technologies facilitate polarization in politics, what influence are they exerting over art, literature, and music? In our haste to find the quickest, most convenient, and most easily individualized way of getting what we want, are we creating eclectic personal theaters or sophisticated echo chambers? Are we promoting a creative individualism or a narrow individualism? An expansion of choices or a deadening of taste?

The Shallow Critic

Questions about the erosion of cultural standards inevitably prompt charges that the critics are unduly pessimistic or merely hectoring. After

all, most Americans see no looming apocalypse in the fact that some of our favorite pastimes are watching television and downloading music from the Internet. Aren't our remote controls, our TiVos, and our iPods simply useful devices for providing us with much-deserved entertainment? "Americans love junk," George Santayana once noted. "It's not the junk that bothers me, it's the love." But few Americans have ever shared this sentiment. We like our cheesy reality TV shows and our silly sitcoms. We love the manufactured drama of *The Wire* and *The Sopranos*. What could be wrong with technologies that make our distractions more convenient? But as the critic Walter Benjamin once noted, "the distracted person, too, can form habits," and in our new age of personalized technologies, two bad habits are emerging that suggest we should be a bit more cautious in our embrace of personalized technologies. We are turning into a nation of instant but uninformed critics and we are developing a keen impatience for what art demands of us.

In his 1936 essay, "The Work of Art in the Age of Mechanical Reproduction," Benjamin argued that technological change (particularly mechanical reproduction) fosters a new perspective he called the "progressive reaction." This reaction is "characterized by the direct, intimate fusion of visual and emotional enjoyment with the orientation of the expert." Benjamin compared the live stage actor to the film actor to demonstrate this point: "The film actor lacks the opportunity of the stage actor to adjust to the audience during his performance, since he does not present his performance to the audience in person. This permits the audience to take the position of a critic, without experiencing any personal contact with the actor. The audience's identification with the actor is really an identification with the camera. Consequently the audience takes the position of the camera; its approach is that of testing."

Today, an increasing number of us consume culture through mediating technologies—the camera, the recording device, the computer—and these technologies are increasingly capable of filtering culture so that it suits our personal preferences. As a result, we are more willing to test and to criticize. As we come to expect and rely on technologies that know our individual preferences, we are eager as well to don the mantle of critics. And so we vent our frustrations on Amazon.com and are in turn ranked by others who opine on the helpfulness and trustworthiness of our views. We are given new critical powers to determine the fate of television plot lines; recently, the show *Law & Order: Criminal Intent* allowed viewers to vote on whether a character should live or die (the masses were lenient—

53 percent said the character should survive). Programs such as *American Idol* encourage a form of mass criticism by allowing millions of viewers to phone in their choice for a winner.

But although our mediums for viewing culture, particularly TV, encourage us to be critics, they do not require much critical judgment or even focused attention. As Benjamin suggested, "the public is an examiner, but an absent-minded one." Benjamin correctly feared that this avid but absent-minded criticism would lead to a lowering of culture and a public increasingly vulgar and simple-minded in its ability to understand art. "The conventional is uncritically enjoyed, and the truly new is criticized with aversion."

This brings us to the second tendency fostered by our personalized technologies: an impatience for what art demands. The more convenient our entertainments, the weaker our resolve to meet the challenges posed by difficult or inconvenient expressions of culture. Music and images are now delivered directly to us, and we consume them in the comfort of our own homes. You can see reproductions of major works of art by perusing the Internet; even literature has been modified for easy consumption. As critic Dubravka Ugresic has noted, "we can find it on CD, on the Internet, in interactive computer games, in hypertext." But to what effect? As Benjamin argued, "one of the foremost tasks of art has always been the creation of a demand which could be fully satisfied only later." This is the difference between the canvas and the screen. "The painting invites the spectator to contemplation; before it the spectator can abandon himself to his associations," Benjamin wrote. "Before the movie frame he cannot do so. No sooner has his eye grasped the scene than it has already changed." The qualities of the canvas—uniqueness, permanence—are the opposite of the screen, which fosters "transitoriness and reproducibility." And the canvas cannot be consumed in one's home, at will. It requires that we venture forth into the world that lies beyond convenience.

Benjamin feared that our impatience would eventually destroy the "aura" of art and eliminate the humility we ought to bring to our contemplation of it. But we haven't destroyed art's aura so much as we have transferred it to something else. Aura now resides in the technological devices with which we reproduce art and image. We talk about our technologies in a way (and grant to them the power over our imagination) that used to be reserved for art and religion. TiVo is God's machine, the iPod plays our own personal symphonies, and each device brings with it its own series of individualized rituals. What we don't seem to realize is that rit-

ual thoroughly personalized is no longer religion or art. It is fetish. And unlike religion and art, which encourage us to transcend our own experience, fetish urges us to return obsessively to the sounds and images of an arrested stage of development.

Control Freaks

In his 1909 story, "The Machine Stops," E.M. Forster, taking a page from Samuel Butler, describes a futuristic society where everyone on earth is now living in a vast hive underground and where every need is met by "the machine." The opening of the story reads as follows:

> Imagine, if you can, a small room, hexagonal in shape, like the cell of a bee. It is lighted neither by window nor by lamp, yet it is filled with a soft radiance. There are no apertures for ventilation, yet the air is fresh. There are no musical instruments, and yet, at the moment that my meditation opens, this room is throbbing with melodious sounds. An armchair is in the center, by its side a reading-desk—that is all the furniture. And in the armchair there sits a swaddled lump of flesh—a woman, about five feet high, with a face as white as a fungus. It is to her that this room belongs.

This is Vashti, and as the story unfolds, we find her struggling to come to terms with her son, Kuno, who wants to see the world above-ground, growing evermore suspicious of the power of The Machine.

The Machine itself controls everything. Vashti's comfortable little cell, like millions of others, has everything she could ever possibly need: "There were buttons and switches everywhere—buttons to call for food, for music, for clothing. There was the hot-bath button… There was the cold bath button. There was the button that produced literature, and there were of course the buttons by which she communicated with her friends." All communication is conducted through the machine; people rarely leave their rooms. At one point Vashti harks back to those "funny old days" when machines had been used "for bringing people to things, instead of for bringing things to people." The ease of Machine-fostered life has brought a corresponding flattening of desire and bred a terror of direct experience. When Vashti is forced to travel, she is seized by anxiety: "One other passenger was in the lift, the first fellow creature she had seen face to face for months. Few traveled in these days, for thanks to the advance of science, the earth was exactly alike all over." The sensibility is captured by the society's experts, who frequently remind citizens: "Beware of first-hand ideas!"

When The Machine begins to fail, the citizens, unable to muster resistance, passively adapt to the strange noises, moldy food, stinking bathwater, and "defective rhymes that the poetry machine had taken to emit." The Machine eventually grinds to a halt, panic ensues, and many people go crazy from experiencing "an unexpected terror—silence." Forster's dystopian story is a caution against imputing too much power to our machines, and of allowing feelings of technological empowerment to mask human weakness.

In his 1934 book, *Technics and Civilization*, Lewis Mumford challenged people to consider the accommodations they were making to their machines. "Choice manifests itself in society in small increments and moment-to-moment decisions as well as in loud dramatic struggles," he noted. "The machine itself makes no demands and holds out no promises: it is the human spirit that makes demands and keeps promises." But that spirit is easily captivated by its creations, leaving us too paralyzed to consider the human virtues and human weaknesses that our creations are encouraging. Joseph Wood Krutch raised similar concerns in *The Measure of Man*. Calling man "the animal which can prefer," Krutch did not worry about mankind becoming more like machines. He saw a different danger: man might become slavishly devoted to his machines, enchanted by the degree of control they offered him once he had trained them to divine his preferences. "It often happens that men's fate overtakes them in the one way they had not sufficiently feared," he wrote, "and it may be that if we are to be destroyed by the machine it will not be in quite the manner we have been fearfully envisaging."

TiVos and iPods will never destroy us. But our romance with technologies of personalization has partially fulfilled Krutch's prediction. We haven't become more like machines. We've made the machines more like us. In the process we are encouraging the flourishing of some of our less attractive human tendencies: for passive spectacle; for constant, escapist fantasy; for excesses of consumption. These impulses are age-old, of course, but they are now fantastically easy to satisfy. Instead of attending a bear-baiting, we can TiVo the wrestling match. From the remote control to TiVo and iPod, we have crafted technologies that are superbly capable of giving us what we want. Our pleasure at exercising control over what we hear, what we see, and what we read is not intrinsically dangerous. But an unwillingness to recognize the potential excesses of this power—egocasting, fetishization, a vast cultural impatience, and the triumph of individual choice over all critical standards—is perilous indeed.