

from José van Dijck, *Mediated
Memories in the Digital Age*

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6



Projecting the Family's Future Past

Upon his return from work, a colleague of mine was buoyantly greeted by his ten-year-old daughter. She begged him to fetch his camcorder and come to her room, where she was playing with her sister—they were performing a karaoke of sorts in which they combined song and dance with typical kids' spells of laughter and fun. "You need to tape us because when we become famous they may show this on television," his daughter explained with a sense of urgency. The children's motivation for being filmed betrays a sophisticated reflexivity of the camcorder as a tool for producing future memories. Even at a young age, children keenly apprehend the pliability of mediated experience; their father's film is not simply a registration of present fun activities, but it is also a conscious steering of their future past. The camcorder constructs family life at the same time and by the same means as it constructs our memory of it; whereas the camcorder registers images of private lives, in the context of television these images may help shape (future) public identity. The children's awareness was most likely triggered by contemporary television programs—anything from so-called reality TV and lost-relative quests to dating shows and celebrity interviews—that deploy home video footage to represent a person's past life.

This scene helps articulate a few intriguing questions on home movies as a means to study the connection between individuals and family, media and memory. Can filming the family be considered an act of

cognition—minds instructing instruments to manufacture desirable images of how one wants to remember his or her family in the future?¹ Are home movies registrations of actual or real families, enabled by the various generations of technological equipment? And what if home movies become cinematic constructions of past family life—footage shot and later reassembled into a common cultural format? Filmed families constitute fascinating windows into cultural memory, illustrating how the horizontal axis of relational identity and the vertical axis of time intersect in memory acts and products. As the children in the above scene perfectly understand, video footage may serve to actually steer one's history as it is actively deployed to shape a family's future past. Home movies remade into cultural products like fiction films, documentaries, websites or television programs can hardly be considered mere pictorial representations of family at a certain moment in time; as mediated memories, they are audiovisual constructions of hindsight. The goal of this chapter is to examine family movies as co-productions of mind, technology, and culture: to what extent are the concepts of "home movie" and "family films" mental projections enabled by media technologies and embedded in sociocultural practices?

First, embodied memory as it relates to home movies is examined. Neurobiologists and philosophers of mind have theorized the intimate relationship between the mind's eye and the camera's eye from various angles. Neurobiologists use movies, screens, and cameras as metaphors to describe the intricate mechanism of human consciousness, whereas some philosophers take them to be more than metaphors. Gilles Deleuze, for instance, suggests the inseparability of the human brain and the movie screen. Films are imagined in the brain, a process that involves a convergence of mental projections and technological scripts; projecting the future and capturing the present are closely intertwined activities of memory. Following the footsteps of Deleuze, Mark Hansen upgrades Deleuze's notion of filmed memories to the digital age, arguing how this convergence takes place at the intimate junction of body and technology.

Beyond the "embodied" perspective, a social constructivist angle is introduced, directing the inquiry into mediated memories from the intersection of technology and culture. As James Moran argues, home movie technologies can hardly be separated from social contexts; notions of family change in conjunction with the technical tools we use to capture families in the private sphere of home. The movie camera, the video camera, and

more recently the digital camcorder have been used to capture the routines of everyday life. At the same time, "real families" transpire in cultural products everywhere. Families played out in television series shape our mental concepts of family interaction, and home movies provide input for media products. In the age of camcorders, webcams, and multimedia productions, family lives are becoming an insidious part of our combined mental, technological, *and* cultural fabric of memory. We need to differentiate between these three levels in order to understand how, in the digital age, filmed family life always involves remembrance, fabrication and projection. Various examples—a feature film, a documentary, and websites—will illustrate this combined theoretical approach. From the analyses of contemporary mediated memories, I argue that the future of memory will be determined by our tools for reconstruction as much as by our imaginative capacities.

Future Memories as Projections of Family

Let us return for a moment to the scene in which the children demanded their playful activities to be taped by their father's camera. The youngsters were keenly aware of how video footage potentially steers their public image as they grasp the essence of raw images serving as input for memories that have yet to be shaped. But could such awareness be the result of their minds' projections or, perhaps more likely, is it the result of the movie camera's infiltration into their mindsets—the result of the ubiquitous presence of camcorders in their everyday lives? Mind and technology, as I argued in earlier chapters, are closely interwoven in our projections and memories of self. The desire to identify oneself as belonging to a family may be deeply implicated in the private camera as a mnemonic tool—to save visual evidence of family life for later reference—but it may just as well be a function of the brain to funnel conscious perceptions of family into desirable or idealized (moving) images. I succinctly explore various hypothetical angles to account for the complex interrelation between mind and audiovisual technology in the construction of personal cultural memory.

Some neurobiologists who study the physiological mechanisms of autobiographical memory concentrate on the brain as an explanatory framework, and choose to ignore the constitutive function of technology or

culture in the process of remembering. When neurobiologist Antonio Damasio speaks of memory as a form of consciousness, he defines it as a two-tired problem. First, he wants to know how the brain turns neural patterns into explicit mental patterns called "images" (see Chapter 4). Multi-sensory qualia, such as the tone of a violin, the blueness of a sky, and the taste of apple pie, are translated by the brain into mental image maps—image narratives Damasio calls "movies-in-the-brain." Second, in producing those mental images, the brain also engenders a sense of self in the act of knowing; all perceptions are the unmistakable mental property of an automatic owner who concurrently constructs images of objects and of self.² Obviously, when Damasio speaks of a movie-in-the-brain, he uses the term metaphorically: as if the brain were both a camera, a movie screen, a filmed production, and a moviegoer. Without a proper analogy, it seems impossible to explain the complexity of the brain's involvement in configuring a sense of self over a period of time. However, the use of this metaphor presents a peculiar paradox: apparently, we need a cultural metaphor (movie) to imagine a physical process (memory, consciousness), whereas actual movies are ultimately the result of a complex brain-machine network involved in film production (scripting, directing, camera work, editing, watching, and so forth)—a subject addressed in the next paragraph. Damasio's theory is understandably oblivious of actual movies as input for actual brains; neither does he account for the role of the camera or other media technologies in equipping the mind's construction of images. The pair brain/mind is hierarchically off set from the pairs technology/materiality and cultural practices/forms; the latter two are mere conceptual aids in the neurobiological theory of movies-in-the-brain.

It is rather interesting to compare Damasio's inquiry into memory as a form of consciousness with Deleuze's philosophical reflections on cinema, memory, and time.³ Building on Henri Bergson's conjectures in *Matter and Memory*, Deleuze has theorized the internalization of the film camera in the human mind to explain memories as filmic projections of the present. The "matter" of memory, according to the French philosopher, emerges at the intersection of brain/mind and technology/materiality. In his book *The Time-Image*, Deleuze highlights the intimate relation between memory and cinema—between moving images in the mind and moving images on the screen. When Deleuze suggests that "the brain *is* the screen," he does not mean this metaphorically but literally: recollection is

inherently defined by the input of actual moving images, which are always partly constructions of the brain.⁴ Whereas Damasio's term "movie-in-the-brain" implies a figural equation (to understand the brain's mechanism *in terms of* film productions), Deleuze explicitly connects cognitive mechanisms to the movement-image of cinema. Cinema is as much a production of the individual mind as it is a production of a mechanical apparatus. Echoing Bergson, Deleuze distinguishes between different categories of images in motion: the perception-image, the affection-image, and the action-image.⁵ "External images" act upon the mind and become "internal images," moving images that stir action or affection, converging into experience.

Memory, in Deleuze's concept, is never a retrieval of past images but always a function of the present, a function that embodies the essential continuation of time. Body and cinema are part of the same organic, connective system: just as the body constantly renews itself molecularly, images never remain the same when processed in an individual's mind. In other words, moving images produced by film are input for the brain, always resulting in updated output. Such a dynamic concept of movement-image sharply contrasts semiotic theories that consider film footage as representations or signs. "Perception-images" of the present determine how actual images of the past are interpreted, and yet, both are inevitably injected with projections of the future: idealized images, virtual images, desire. It is instructive to quote Deleuze's words in full here: "But instead of a constituted memory, as function of the past which reports a story, we witness the birth of memory, as function of the future which retains what happens in order to make it the object to come of the other memory. . . . [M]emory could never evoke and report the past if it had not already been constituted at the moment when past was still present, hence in an aim to come. It is in fact for this reason that it is behavior: it is in the present that we make a memory, in order to make use of it in the future when the present will be past."⁶ Films are imagined in the brain—a process involving the convergence of mental projections and technological scripts. If the past is a filmic product of the present, so is the future; according to Deleuze, memory is always in a "state of becoming."

It takes little effort to translate this part of Deleuze's theory into the mediated memories model outlined in figure 2 (see Chapter 2). Applied to the specificity of home movies, one could argue that the film apparatus is inseparable from the individual who deploys the camera to articulate a

sense of connection between self and family. As a memory object, a home movie changes meaning each time it is seen. The act of memory also includes the actual shooting of the movie; the later use of home movies and video footage—even if unspecified—is already anticipated at the moment of shooting. In addition, home movies are never simply found footage of the past: each time they are reviewed or recycled, they are edited by the brain. Moving images, first shot and later edited, project the intricate time-movement of mental recollection so characteristic of the human mind; the mind's tendency to impact future remembrance is implicated in technologies of memory, particularly the movie camera. Deleuze's philosophical reflections on memory and cinema stress the interdependent connections between the functions of the brain/mind in the act of memory and the technology/materiality of the memory object. Applying his theory to specific (fiction) films, Deleuze minutely analyzes how the brain is always involved in articulating moving images produced by the cinema apparatus, an apparatus that only works because the anticipation of mental images is part of its technological script.

However, as we move into an age when the cinematic apparatus and the video image are gradually replaced by the multimedia apparatus and the virtual image, Deleuzian philosophy needs updating in several respects. As Mark Hansen contends, processes of digitization and virtualization call for a new concept of embodiment—the body's relation to image and its affects. Whereas Deleuze still accepts a distinction between perception and simulation—between external and internal images that stir action or affection, converging into experience—Hansen argues that our bodies, brought into contact with the digital image, experience the virtual through affect and sensation rather than through techniques, forms, or aesthetics.⁷ Drawing examples from digital art works and virtual reality environments, Hansen counters Deleuze's neuroaesthetics and "cinema of the brain" with a concept in which "the brain is no longer external to the image and is indeed no longer differentiated from an image at all."⁸ Rather than talking about an affect caused by a technological (cinematic) apparatus, Hansen considers the digital apparatus to be an integral part of a new embodied experience. Digital technologies call for an approach to cinematic hindsight that privileges the bodily basis of vision; the mind, according to Hansen, filters the information we receive to create images of the past, instead of simply receiving images as preexisting technical forms.

Both Deleuze and Hansen agree that family portraits captured in moving images are never simply retrospectives—found footage as relics of the past—but they are complex constructions of mental projections and technological substrates. Deleuze in particular pays little attention to the sociocultural forces involved in filmic productions.⁹ And yet, it is precisely this triangle of forces that seems to account for the richness of family movies as objects of cultural analysis. The social practice of (home) moviemaking and the impact of conventional cultural forms on our understanding of moving images appear to play an equally constitutive role in the construction of cinematic hindsight. A concrete example may help illustrate both the relevance and shortcomings of this techno-embodied perspective, instead arguing for the comprehension of movies as collaborations of mind, machine, and culture.

It should come as no surprise to find that fiction films, in recent years, have echoed a Deleuzian connection between brain and screen in the configuration of human memory. Whereas movies such as *Eternal Sunshine of the Spotless Mind* and *Memento*, described in Chapter 2, capitalize on confounding past and present in an individual's mind, science-fiction films such as *The Matrix* and *Strange Days* typically envision the potential of media technologies to mix past and future memories.¹⁰ The advent of digital technologies, and particularly virtual reality environments, inspires the creation of virtual consciousness, allowing either a glimpse of the past through the eyes of a former self (*Strange Days*) or offering an embodied perspective on future events (*The Matrix*). In these movies, media technologies enable individuals to escape the constraints of the present, allowing them to move effortlessly between past, present, and future. Philosophical concepts articulated in science fiction films, in turn, help shape our mental and technological constructs of memory. The function of these movies is to “imagineer” what memory may look like in the future. A projected collapse of the brain with technology, far from an incidental concept, is a recurring trope in science fiction films.

One film that mingles a projection of memory's future with an imaginative design of the home movie as a conflation of brain and screen is Omar Naim's *The Final Cut* (2004). The movie is staged in the unspecified future, where the latest hit in home movie technology is the so-called Zoe Eye Tech Implant: an invisible organic device implanted in the brain of a fetus, equipping that recipient to shoot a lifetime of experiences through

the eyes—an audiovisual recording straight from the brain. The implanted camera starts rolling the moment the fetus passes its mother's birth canal, and it is not removed until that person's death. In Naim's imagined society, one out of five people carry an implant, often unwittingly, as parents are not supposed to inform their children of this surprise until the children turn twenty-one. The Zoe implant is one of the most precious gifts a parent can donate to a child; it replaces the need for personal photographs or home movies because the eye camera offers a full and impeccable registration of someone's life. After the person's death, the chip is removed to be edited into a so-called rememorial, a ninety-minute film reminiscent of a made-in-Hollywood biopic. The implant comes with a new ritual: the “Re-Memory” is a commemorative gathering taking place forty days after a person's death at a cinema-alien-funeral parlor where the feature-length retrospective of the deceased is premiered to an invited audience.

The main character of *The Final Cut* is Alan Hakman (Robin Williams), one of the best professional cutter's of Re-Memory movies; his job is to turn the lifetime reels, removed from the deceased's brain, into conventional audio-visual productions, a sort of edited and anthologized digest presented as the ultimate obituary. In the main plot line, Hakman is asked to perform the “final cut” on the life movie of Charles Bannister, one of Eye Tech's attorneys who recently died. His widow Jennifer instructs Hakman to edit her husband's implant footage into a glossy retrospective, honoring the principles “family, community, career” and thus carefully omitting any scenes that would compromise his public image. As all cutters do, Hakman betrays the cutter's code proscribing to refrain from manipulation, instead accommodating the wishes of surviving relatives. While sorting through Bannister's life files, the editor is not only confronted with dubious money laundering schemes and fraud, but he also witnesses scenes in which the attorney commits adultery and incest with his daughter Isabel. Hakman discretely erases all compromising evidence from the deceased's ultimate portrait: the delete function turns out to be the cutter's most important Re-Memory tool. The result is a sanitized life in review, a public version of a family man with a brilliant career. Although every Re-Memory visitor understands the subtext of this genre, the dark side of Bannister's life remains invisible to the public eye. The ultimate home movie is everything but a true memory of the deceased's life. Like any film, this one is a mediated

construction rather than a concatenation of pure registrations of authentic past events; after all, the editor defines both the choice and order of scenes. By definition, the retrospective captures the idealized family, and by removing painful episodes of adultery and incest, the family's memory is literally cleansed of its troubled past.

Director Naim takes Deleuze's idea of the brain as screen very literally: the eye is the camera, and the home movie is allegedly shot straight from the visual cortex. The theory of the movie camera coinciding with the mind's eye and the screen with the brain suggests the inseparability of thought processes from the technological substrates enabling their manifestation—what Deleuze touts as cinema's "psychomechanics."¹¹ The vector of time is an arrow bent into a circle: projections of the past become memories of the future, and vice versa. Naim's movie conveys a philosophical reflexivity based on Deleuze's contention that cinema is not about concepts but is itself a conceptual tool, raising questions such as: What are the new forces unleashed by memory once it becomes an organic biological-mechanical construct? What are the ethical and social consequences of eye implants?¹² Updated to Hansen's conjecture of digital technologies, Naim underscores the bodily basis of vision by making external and internal views indistinguishable. We constantly switch from the mind of Hakman, whose filtering of information is clearly tainted by his own memory, to images "shot" by Bannister's chip implant—the very images Hakman is supposed to filter. Instead of simply receiving images as pre-existing technical forms, mind-images and movie-images are mutually constitutive, consequently questioning the ultimate reliability of bio-engineered vision.

However, the convergence of brain and technology is not enough to account for this intricate construction of hindsight. *The Final Cut* attests to the idea that, despite the merger of eye and camera, the ultimate manipulating power of memory lies neither in the brain nor in the technology nor in a combination of both but in the interaction between brain, technology, and *culture*. With the help of advanced media technologies, every *Re-Memory* made up of mind-footage is modeled after the accepted cultural form of an audiovisual obituary, a life-in-review movie that is inevitably modeled after the conventional Hollywood format. In fact, the brain is the camera shooting the movie, but that movie is ultimately a product of culture. Capturing and projecting the family, even in the futuristic high-tech

bio-digital society of science fiction, remains the work of an editor whose final cut is subject to the norms and social codes of the present. As becomes eminently clear from Naim's movie, mind and brain may fuse with technologies of memory, but all mental and technological constructs of past family life are always also social and cultural constructs.

What we learn from this film is that the construction of hindsight is arduously interwoven with dominant social and moral codes, anchoring futuristic extrapolations of techno-engineered memory in hegemonic cultural forms. The malleability of memories over time is not in the least facilitated by the technologies enabling their conception and later revision. In a way, technologies of memory facilitate the flexible interweaving of past, present, and future that our minds proffer. We wield camcorders and home videos to construct a pleasing future memory of our family's past life, thus anticipating the editing function as a feature of the mind as much as a feature of technology. And we wield film cameras to construct a version of memory that accounts for the conventional use of home recording technologies, while concurrently reflecting on the potential formative power of future technologies. At first sight, Naim's science fiction movie offers a straightforward illustration of Deleuze's theory of embodied memory as an amalgamation of mind and technology. Closer analysis yields the inescapable significance of cultural forms as constitutive elements in the construction of cinematic hindsight.

The "Home Mode" as a Techno-social Construct

Whereas Deleuze and Hansen focus on the merger of brain/mind with technology as the preeminent junction to study the meaning of moving images, cultural theorists find themselves more comfortable at the intersection of technology with sociocultural forces. In his excellent study of the home video, James Moran theorizes the historical and technological specificity of what he calls the "home mode"—the place of home movies or home videos in a gradually changing media landscape.¹³ Rather than identifying the home movie or home video according to its ontological purity or as a technical apparatus, Moran rethinks the home mode as a historically changing effect of technological, social, and cultural determinations—a set of discursive codes that helps us negotiate the meaning of individuals in response to their shared social environment.

The home mode is not simply a technological device deployed in a private setting (the family), but it is defined by Moran as an active mode of media production representing everyday life: "a liminal space in which practitioners may explore and negotiate the competing demands of their public, communal, and private personal identities."¹⁴ The home mode articulates a generational continuity over time, providing a format for communicating family legends and stories, yet it concurrently adapts to technological transformations, such as the introduction of new types of equipment: first the movie camera, later the video, and more recently the digital camcorder. Moreover, the home mode is affected by social transformations such as the position of family in Western society. Moran poignantly sums up: "While we use these media audiovisually to represent family relations to ourselves, we also use family relations discursively to represent these media to each other."¹⁵ The changing depictions of families on public screens, most notably television, are part and parcel of the sociocultural transformation he is trying to sketch.

It is imperative to understand the evolution of the home mode and its technological and sociocultural constituents, because without recognizing these historical roots it will be difficult to account for its specificity as we enter the digital age. From the early beginnings of film, consumer technologies such as movie cameras have been drafted into the depiction of family life, whether as tools for idealization or as tools for inquiry and criticism. Although quite a few studies have been written on home movies in relation to the history of film or photography, few scholars have paid attention to the transformation of technologies in conjunction with changing social and cultural patterns of family life. Patricia Zimmerman explains, in her classic study of amateur film in the twentieth century, how the invention of increasingly lighter cameras seduced ever more parents into chronicling their children, thus providing a visual homage to the familialism of postwar America.¹⁶ Zimmerman and other film historians tend to uncritically transpose the technological and ideological effects of the home movie as an instrument for promoting the ideal nuclear family in the 1950s onto home modes prevalent in later decades.¹⁷ Moran, by contrast, convincingly argues that in subsequent decades the conventions of family representation changed in conjunction with home movie technologies.

The growth of the suburban family in the 1950s is inextricably intertwined with the emergence of television and of home movie cameras as

domestic symbols of individual wealth and social cocooning. As television entered the private homes of the 1950s, images of screen families started to fill living rooms across America and shaped the concept of the nuclear family unit. Not coincidentally, many televised families, such as those portrayed in *Leave It to Beaver* or *The Adventures of Ozzie and Harriet*, conflated real life and screen reality.¹⁸ Capturing one's own family in the 1950s and 1960s often meant to imitate the idealized family as shown on TV. The possession of an 8 mm camera in itself signaled the newly acquired material wealth that was prominently showed off both in television series and home movies of these decades. A parent's home movie camera functioned as a confirmation of intimate family life, an amateur production that defined itself against the increasingly popular public images of families on television; home recordings also served to entertain the family in their present. As objects of memory, home movies feature a family's life as a concatenation of ritual highlights, from birthday parties to first steps and from weddings to graduation ceremonies. The ability to record everyday events, to construct family life as it was, signified the individual consumer's power to model bliss and happiness after the ideal shown on television.

As the 8 mm movie cameras of the 1950s and 1960s gave way to the video cameras of the 1970s and 1980s, the style and content of the home mode changed accordingly, eclipsing the hegemonic portrayal of idealized families even if never replacing it.¹⁹ In terms of its material apparatus, the light-weight video camera equipped the amateur user with an unobtrusive instrument to record everyday life. Video's ontology, unlike film, was based not in chemical but rather in electronic image processes, allowing for an unmediated display of moving images on the television screen. Video culture, as British media theorist Sean Cubitt contends, promoted the "metaphysics of presence": a documentary style that favored the inconspicuous presence of a camera as a fly on the wall, as if the filmmaker were part of the furniture.²⁰ It would be far too simple to reduce the *vérité* style of an era to the effect of a newly introduced media technology, but it is certainly no coincidence that video provided a way for capturing ordinary people's lives as they were in addition to the prevailing idealized way of recording them in the earlier home movies.

The home video became a favored instrument for recording quotidian reality, even if this reality did not live up to the traditions of family

portraiture. A light-weight video camera lends itself much more easily than the 8 mm camera to unexpected and unobtrusive shootings; a family row or a sibling secretly stealing a cookie no longer evaded the discrete eye of the camera. And that new apparatus seemed particularly suitable to record everyday family life that was quickly changing in the wake of larger social and cultural transformations. A political climate with waxing protests against established norms of patriotism and paternalism defined this new generation of young adults; large numbers vocally opposed their parent's values about class, race, gender roles, sex, and ethnic identity. The nuclear family became a contested concept, as a new generation paved the way for sexual liberation, emancipation, and social diversity.²¹ Home video defined itself in opposition to home movies as a mode subversive to the nuclear family ideal epitomized by 1950s home movies. In addition, video also came to define itself in opposition to television as a tool for rebelling against mainstream, collective values: community activists and gay and women's liberation movements used this medium to spread alternative concepts of identity and lifestyle to counter homogeneous mass media images.

The shift from idealized families and home movies to real families and home video also prominently figures in the production of domestic television series in the 1970s and 1980s. Images of family conveyed by typical postwar television series, and prolonged by series such as *The Brady Bunch* and *The Partridge Family*, were gradually supplemented by portrayals of less ideal and more realistic families, such as the Bunkers in Norman Lear's popular *All in the Family*, which first aired in 1971. Frequent confrontations between Archie Bunker and his son-in-law Michael ("Meathead") played out contemporary generational conflicts over political convictions, gender politics, and race relations in a society characterized by upheaval and rapidly changing norms. And yet, television never single-authored the hegemonic identity of the American family, just as the home video never uniquely covered the private lives of relatives. Television and home video mutually shaped the home mode in this historical time frame.²²

There is no better example to illustrate the entanglement of television and home video in this era than the PBS series *An American Family*. A new genre, namely, family portrait documentary, was coming of age in the early 1970s when young filmmakers started to experiment with the new techniques of cinema vérité.²³ *An American Family*, a twelve-part documentary

series that premiered on January 11, 1973, captured seven months in the life of a real California family—Pat and Bill Loud and their five teenaged children, Lance, Kevin, Grant, Delilah, and Michele. Producer Craig Gilbert and filmmakers Alan and Susan Raymond followed each member of the household at a turbulent time of their lives: the Louds' marriage ended in a divorce; the oldest son, Lance, announced he was gay; and the family unit was literally splitting up. A PBS announcement described this new television format as it invited viewers to "meet TV's first real family tonight and share their lives in the 11 weeks to follow."²⁴ The immensely popular series struck a chord with the American audience, as the Louds' turmoil mirrored quite a few experiences that real families encountered in this decade of change. The center was not holding—to echo Yeats's famous dictum—and television was recording its falling apart.

Because the series itself, as a unique and revolutionary media phenomenon, has received due scholarly attention, here I concentrate on the construction of the home mode in *An American Family*, because it exemplifies the struggle with codes inscribed in the home movies of the 1950s in favor of the newer, more immediate style of home video and cinema vérité.²⁵ *An American Family* subscribed to this new style as it suited the function of capturing family life as it is. In the words of the PBS announcement: "The Louds are not actors. They had no scripts. They simply lived. And were filmed."²⁶ Film crews that followed the Louds made themselves unobtrusive and their presence went almost unnoticed by the Loud family members, even while recording the couple's rows over Bill's extramarital affairs and their decision to file for divorce. Lance, the oldest son living in New York, received a light-weight Portapak recorder to document his own observations in addition to being filmed. This direct cinema style sharply contrasted the nostalgic photographs and home movie reels edited into the series as a way to visualize the Louds' past family life. As Ruoff explains in his reconstruction of the series: "The home movies and family photographs themselves represent an important detour from the observational focus on images and sounds recorded in the present. The Louds' home movies chronicle festive occasions such as Thanksgiving dinners and baby Lance taking his first steps. These nostalgic recollections suggest happier times, offering a powerful contrast to the Louds' contemporary lives."²⁷ Those incremental snippets of home movies and photographs not only signify life as it was for the Louds, but they also serve as a confirmation of

collective memory of the 1950s as an era of happiness and peaceful family lives supported by ceremonial, ritual signposts and cemented in a transparent social structure with distinct roles for each family member. The camera registering life as it is stands in opposition to the previous home mode in both style and content, as it articulates the era's crumbling normative ideals by fixating the camera on the other side of family life: an emancipating housewife, a homosexual son, an unfaithful husband. The Louds' new mediated memories are recorded in a different fashion—using video and light-weight cameras—because the family can no longer live up to the ideal that was previously constructed through the lens of the home movies.

The oppositional home modes featured in *An American Family* are clearly in dialogue with its fictional counterparts on television, both conventional and more subversive sitcoms such as *All in the Family*. But whereas the fictional generational conflicts played out by the Bunkers are filled with explicit conflicts concerning sexuality, politics (Vietnam), identity, and race, the confrontations in America's "first real family on television" are much less ideological, only casually alluding to pressing political events or social debates raging at that time. Nevertheless, the realist record of a family falling apart, even if this reality was presented in the condensed and edited format of an eleven-part series, became a milestone in the history of American television. What attracted the audience at the time was most likely the way in which the Louds explored and negotiated the competing demands of their personal identities and prevailing family values in front of the public eye. The documentary camera, long before the introduction of so-called reality TV in the 1990s, became a constitutive element in the shaping of family life and personal identity.²⁸ Capturing the family, as a scheme for understanding and remembering, became integral to family life as a means to negotiate notions of individuality and togetherness, of deviation and belonging.

As poignantly put forward by Moran, every new media apparatus affects practices of production in conjunction to ideologies of home that reconstitute the family as a discursive domestic space. Now, if we extend this thesis to the last two decades—an era in which camcorders and digital equipment came into vogue—how does the home mode change along with notions of screened families? In the digital era, screened family life is paradigmatically defined by the ubiquitous presence of surveillance cameras and privately operated webcams. Whereas fly-on-the-wall cinema

techniques set the standards for arresting reality in the era of analog video, the webcam may currently count as the symbolic catching hook for life as it is. A naturalistic mode of filming gives way to a surveillance mode of recording: fixed webcams cover an unwitting subject's movements. Even when the subjects are aware of the cameras' presence, there is no actual intervention from a camera crew. This mode of surveillance is not only frequently employed in public areas, where cameras control the movements of passengers, but with the webcam installed in a home, it is also rapidly becoming a common means of self-exposure on the World Wide Web.²⁹

The digital mode seems to better suit contemporary fractured notions of family and more prominent individualism. Extending the home video logic of the 1980s—the real family captured in their rebellion against normative domestic values—the camcorder of the 1990s allots even more power to individual users to construct their idiosyncratic views of family.³⁰ As Moran observes, families in the 1990s and the twentieth-first century are no longer "natural" units: they are "families we choose"—domestic relationships between individuals construed as family ties.³¹ The family we choose is the family that chooses to film itself as a unit, using an insider's perspective and camera, giving each member a direct voice in his or her representation. New conventions of television programming also define what constitutes a real family: a number of individuals who voluntarily move into a house, succumb to a regime of created conditions, and are continuously monitored by numerous surveillance cameras. The *Big Brother* effect, in a way, is the televised, formatted counterpart of circuited webcams installed in a family's home, continuously beaming pictures of real family life on the Internet.

Let us look at one example of a turn-of-the-millennium webcast featuring a regular family and compare it with a typical television series integrating the surveillance home mode into its program format. The webcam site of the Jacobs family from Alta Loma, a Los Angeles suburb, is one of thousands of sites featuring regular family life on the Internet these days.³² Consisting of two parents and seven children, the Jacobs keep up an extensive home page where each member presents him- or herself in pictures and texts. The site presents an interesting mixture of the 1950s idealized family-style pictures and the digital surveillance home mode. When turned on, the webcam beams live footage from the living room: the children

joking, the mother showing things to the webcam, the father leaning backward in his office chair.³³ The webcam footage seems to verify the real happiness professed in the website's texts and still pictures, as if saying, "Look, this happiness is authentic; you can watch us live from our home, every day."

Interestingly, the Jacobs family is literally made possible through the Internet. On their home page, they introduce themselves as follows: "We are the Jacobs Family. Clarence and DeShawn were married on November 27, 1999. We met on the internet [*sic*] in August of 1999, fell in love, and were married in Las Vegas. When we met, DeShawn had her son Dustin, and Clarence had Jennifer, CJ, Kyle, and Davey. Since then, we have 'added' Jarrett and Julia. A true 'Brady Bunch' as we are sometimes called."³⁴ The Jacobs, as we can see and read, are a typical postmodern fractured family: DeShawn writes about her birth mother and the search for her biological father, daughter Jennifer lives with her mother and stepfather in Arizona, and Clarence's sons are getting used to their new half brother and half sister. We can safely assume digital technology not only facilitates but actually enables family life for the Jacobs: without the webcam, their daughter Jenny in Arizona could not participate in everyday life, and without the Internet, DeShawn would not have been able to contact her biological father. In short, the Jacobs construct their "bunch" through digital media, while at the same time (and by the same means) they also beam this family's domestic bliss to a potentially worldwide audience.

Perhaps not coincidentally, the Jacobses' favorite pastime, as we can read on their site, is watching reality series on television. One of the more popular domestic reality series featuring in the early twenty-first century is *The Osbournes*. Ozzie Osbourne, once the notorious band leader of the heavy metal group Black Sabbath; his wife and manager Sharon; and their teenage children Kelly and Jack, according to MTV's announcement, allow surveillance cameras to continuously peek into their private lives, and that footage is turned into "an addictive new docu-series."³⁵ Even if the announcement promises the series to be a continuous window onto the lives of a famed rock star and his family, the net result is a traditional television format. On the one hand, *The Osbournes* deploys technological devices to create a sense of reality: furtive handcam footage is alternated by fixed steadicam shots, which are occasionally used by a family member to stage an intimate tête-à-tête with the television audience. On the other

hand, the MTV docu-series is edited into an episodic format that undeniably reminds us of conventional genres—in this case a hybrid of a domestic sitcom and a video clip.³⁶ The docu-reels in the television series bring the traditional format of the domestic sitcom (and traditional family values) up to the current technical standards of reality capturing.³⁷ Naturally, the home mode and family concept featured in reality series like *The Osbournes* inspire many family webcam sites.

Following the social constructivist logic of James Moran, audiovisual representations of the Bunkers, the Louds, the Osbournes, and the Jacobs, reveal the interlocking of home movie technologies and cultural forms such as (reality) television series. In contrast to Deleuze and Hansen, Moran considers filmed family portraits to be technical substrates interwoven with sociocultural norms and conventions. While (cognitive) philosophers show little interest in the sociocultural component of converging brains-cum-apparatuses, cultural theorists such as Moran tend to disregard mental-cognitive functions when describing the home mode. And yet, I think we need a merger of both approaches in order to fully comprehend the intricateness of current filmic constructions of hindsight, especially now that digital technologies prompt us to develop a renewed awareness of mediated memory as a fabric woven of cognitive, technological, and cultural threads.

Capturing a Family's Past in the Digital Age

As stated earlier, our remembrance of family is prone to constant revision; home movies or videos shape and feed our memories, as filmic reconstructions insidiously coil with mental projections of family. In the digital age, it becomes increasingly easy to refurbish old footage into technically smooth productions and revivify former memories while retroactively adjusting them to fit our present knowledge and norms. Indeed, digital video in many ways destabilizes the supposed naturalness of analog video, as an emerging digital infrastructure shifts the center of gravity from simply shooting to complete processing and from image-sound recordings to multimedia productions. Today's computer hardware and software allows for affordable near-professional standards of editing and full-fledged productions, complete with subtitles, sound, and sophisticated montage, all in our private homes. Burned onto a DVD, the family's summer vacation in Cuba

is now an audio-visual product that may compete technically and stylistically with travel programs featured on television. In addition, traditional image-sound recordings of home movies and videos increasingly yield to multimedia productions integrating documents, pictures, texts, (moving) images, and links to webpages. Multimedia productions on DVD no longer privilege the chronologically ordered visual narrative prescribing a viewer's reading but promote browsing through a library of connected files and (sub)texts. The digital cultural form breaks with inscribed codes of sequential episodes, allowing past and present images—even if shot in different technical modes—to merge in a smooth media product.

New technological devices, such as the digital camcorder, the World Wide Web, the webcam, the DVD, and the compact disc are of course not in and of themselves triggers for new mental concepts. A medium is both a material and a social construct, whose metaphors and models provide a horizon for decoding present knowledge.³⁸ Digital tools appear to give individuals more autonomy over their (multi)mediated portrayals of a family's past: mentally, by projecting remembered family history onto a new media product; technically, by editing old footage into reconstructed versions of family life; and culturally, by weaving in fragments of public footage (such as newsreels) with private portrayals. The emergence of a digital type of home mode does not make the filmic discourse of remembered family life more self-evident. Contrarily, because of their versatile and manipulative nature, moving images may easily become part of a dispute over disparaging versions of what family life was like. In watching contemporary (digital) reconstructions of family life, we need to account for at least three different levels of analytical awareness: First, we need to acknowledge how camera perspective and editing always imply an "I"—an individual imposing a particular view on a family's past. Second, we need to distinguish between various time levels implied in historical home modes; movie or video reels shot in previous eras beget a new illocutionary force when integrated in digital productions. And third, we need to remember the social codes and cultural contexts of historical and contemporary home modes while watching a production of screened family life. In the following analysis of a contemporary documentary, I demonstrate the significance of each level.

The documentary *Capturing the Friedmans* (2003) confronts viewers with the powerful role of various home mode technologies in authenticating

and reshaping family life; director Andrew Jarecki's production is not just a documentary; the DVD-version, which I focus on here, renders a much more comprehensive view of the harrowing family saga he is trying to tell.³⁹ The Friedmans are a typical middle-class Jewish American family living in Great Neck, Long Island, where Arnold and Elaine, both into their fifties, have raised three sons: David, Seth, and Jesse. A retired schoolteacher, Arnold teaches computer classes for kids in his home basement and is helped by his youngest son Jesse, then eighteen. In November 1987 they are both arrested on charges of repeated sexual abuse of boys who attended their classes. The police raid heralds months of denigrating incarceration, release on bail, a media frenzy, a neighborhood witch-hunt, and—within the Friedmans' home—family rows over the best strategy to keep Arnold and Jesse out of jail. The family is torn apart by conflicting emotions of guilt, doubt, suspicion, and loyalty; David chooses the side of his father and brother and resents his mother Elaine, who is in more than one way the family's outsider. She is never convinced of Arnold's innocence, as he has lied to her in the past about his pedophilic inclinations and molestations. When her endearing attempts to save Jesse, by urging both father and son to plead guilty, inadvertently backfire, her oldest son David bitterly turns against her. In separate hearings, Arnold and later his youngest son enter their guilty pleas and are sentenced to substantial jail time; Arnold commits suicide in 1995 while imprisoned, and Jesse is released in 2001 after having served thirteen years of his sentence.

Although the events unfolding in retrospect before the viewers' eyes are dramatic by themselves, it is the hypertextual nature of this documentary and particularly the DVD that prevents the story from turning either sensationalist or partisan. Rather than following a chronological narrative logic, the documentary relies on the viewer's ability to identify three different technical types of film and to intertwine the distinct historical and contemporary home modes to which they refer: the home movies shot by Arnold in the 1950s through 1970s; David's home video footage recorded after the arrest in 1987; and interviews taped in the present by Jarecki.

For starters, the documentary features home movies and family pictures shot by Arnold Friedman primarily in the 1950s through the 1970s. These images are in perfect accordance with the conventions of home movies at the time: happy scenes of birthday parties, beach fun, and family vacations. Filming appears to be a family tradition—a narcissistic way

of preserving the Friedmans' heritage on tape—as exemplified by an early 1940s recording that Grandfather Friedman made of his six-year-old daughter, performing as a ballerina in front of the camera. We learn from Elaine's voice-over that, several months after shooting this film, Arnold's sister died of lead poisoning. The joyful pictures of Arnold's childhood sharply contrast Elaine's commentary that her husband admitted to having repeatedly raped his younger brother Howard while sleeping in the same bed with him. Howard, interviewed in the present by Jarecki, desperately denies any recollection of his brother's self-confessed acts ("There is nothing there"). This incongruity between the ideal family life featured in the home movies and remembered reality cues the viewer to be suspicious when David Friedman, in turn, also claims to have nothing but rosy memories of his youth. His memory is corroborated by Arnold's home movies of his three sons playing in harmony with their father, having fun, and joking among themselves. Clearly, the home movies authenticate idyllic family life, but due to the comments by various family members, the viewer can only doubt their status as verification documents.

The second type of authentic footage stems from David's deployment of the video camera. Honoring the family's tradition, David had just bought a video camera in 1987, when the family started to fall apart following the arrest and the subsequent trial. In line with the conventions of cinema vérité and home video of the 1970s and 1980s, the camera keeps rolling as siblings engage in heated disputes at the dining table.⁴⁰ Mother Elaine often begs to turn off the camera, but the men clearly hold sway over the camera and ignore her requests. David and Jesse take turns in filming family rows but also record remarkable moments of frivolous acting—a sense of humor that obviously binds father and sons. The video camera, evidently deployed to capture life as it is, turns out to be just as unreliable as the old home movie camera capturing life as it was. Both home modes record a version of reality that later paradoxically serves as a desired benchmark for truth—whether this truth is a memory of ideal family life or a memory of a family at the verge of total disintegration because of false allegations.

The third type of footage, on-camera interviews conducted by Jarecki, reframes and unsettles the documentary evidence offered by pieces from the Friedmans' family archive.⁴¹ Interviews with family members (Arnold's brother Howard; Arnold's wife Elaine and their sons David and Jesse, but

not their son Seth, who declined to be interviewed) are supplemented by a number of interviews with people who were at that time involved in the Friedmans' indictment: their former lawyers, police investigators, alleged victims (then children, now adults, who both confirm and deny former allegations), parents of alleged victims, and an investigative reporter who wrote on the case. Mixing contemporary interviews with old news footage and trial tapes, the filmmakers manage to demonstrate the many angles on this case without ever privileging a single truth.

A condition for understanding the compilation of private reels is that viewers recognize the various perspectives at work in this production, laid in there by various family members who each try to steer and influence the outcome of this memory product and thus define the meaning of what happened to their family. The conundrum of slippery and quivering truth, which is clearly present in the screen version of *Capturing the Friedmans*, is even more palpable in the DVD version of the documentary. Needless to say, digital equipment was instrumental in the seamless cross-editing of the three (historical) types of recordings and in braiding together the various individual perspectives of the family members. Turning the movie into the cultural format of a DVD—often including footage of the making of scenes and evidentiary material—viewers assume the position of active co-constructors of the story. The DVD includes many extras: full interviews with witnesses for the prosecution, a family scrapbook with photos, more home video footage, and news reels on the case. In addition, a second DVD disc features coverage of the discussion after the New York premiere, where many people involved in the case dispute each other's versions of what happened to members of the Friedman family. And most significantly, the disc contains a section where the viewer can read key documents, such as letters from Arnold and a police inventory from a search of the Friedmans' house. As the extra documents become an integrated part of the puzzle, the viewer is encouraged to sharpen his or her judgment by reading more evidence, both to buttress the judge's decision and to back up the family's defense. In fact, as director Jarecki suggests in an interview, the documentary serves as "the trial that never was" (there were only hearings in front of a judge), and the audience serves as a jury. From the puzzle of recordings, viewers ultimately decide for themselves what happened to this family. The seamless web of digitized documents weaves the family's narrative into an open-ended hypertext of possibilities: facts, testimonies, truths, and illusions.

And the documentary is extended on the Internet via a website that updates its viewers on the continuous saga of the Friedman family. David and his brother Jesse—now released from prison—try to get a retrial, on the basis of Jarecki's film (especially his interviews with witnesses), to prove their father's and Jesse's innocence.

In line with Moran's constructivist theory, technical and socio-cultural codes codetermine the construction of family and our personal and collective memory of it. Yet beyond this constructivist analysis, we need to acknowledge that *Capturing the Friedmans* is also a coproduction of mind and technology, involving both the reconstruction of past images and the projection of future memories. Future construction of cinematic hindsight is already inscribed at the moment of each home movie shooting, most notably when David Friedman, in the middle of the turmoil in 1988, takes up the video camera and turns it onto himself. Sitting on his bed, and starts a monologue: "This is a private thing, you know . . . if you're not me, you're not supposed to be watching this. This is between me and me, between me now and me in the future." In this scene, David is addressing himself in the future. Indeed, why make a video if there was no intention of telling the family story someday, in some form? Another instance illuminating the intentional inflection of future memories of the family's past comes in David's response when director Jarecki asked him why he started to film his family's ordeal: "Maybe I shot the video tape so I wouldn't have to remember it myself. It's a possibility. Because I don't really remember it outside the tape. Like your parents take pictures of you but you don't remember being there but just the photographs hanging on the wall." David cogently identifies the power of home video and home movies as dual instruments for constructing and remembering family life. On the one hand, he needs to record his own version of reality because his father is going to jail and he does not want his own future children to remember their grandfather from newspaper pictures. On the other hand, he wants to document his father's and brother's innocence. For instance, David films Jesse while driving the car on his way to the courthouse where Jesse intends to enter his guilty plea and hopes to obtain a reduced prison sentence; David forces his brother to state his innocence when he asks, "Did you do it, Jess?" to which Jesse solemnly responds, "I never touched a kid." This home video footage painfully contrasts the official court video later in the documentary, showing a crying, remorseful Jesse admitting his

guilt to the judge—an act so convincing you no longer know which documentary evidence to believe. David and Jesse undoubtedly utilize the home video to assert some measure of control over the events as they are unfolding, perhaps in an attempt to avoid the family breaking up. But in doing so, they consciously build their future defense—their personal memory of a torment that was, in their version, uncalled for and unjust.

As we learn from *Capturing the Friedmans*, family is a production of media as well as a product of memory, involving projection and reconstruction.⁴² Through our home modes, we construct the memories of tomorrow, and via our technologies, we create projections of the past. Family is remembered through mental, technological, and cultural means of mediation, and every generation chooses its own tools to understand and reframe that concept. If we want to understand how both media and memory change along with notions of family, we may depart from Jarecki's improvised definition of memory in an interview included in the DVD: "We think we can put our memories away in a box and we can go check on them later and they will be the same, but they are never the same; they are these electro-chemical bubbles that continue to bubble over time." Memories never just are; they are always in the process of becoming. Our memories of family evolve in conjunction with home movie technologies and social codes and conventions; the real challenge of cultural analysis is to recognize mediated memories' historical complexity in order to explain their contemporary relevance.

The Future of Home Movies

The home mode, besides referring to a screen registration and a social construct, also involves a mental projection of family life. Remembered families are hence projected families—the simultaneous products of mind and matter, of home and Hollywood. Therefore, the future of memory will be determined as much by our tools for remembering as by our imagination. Cultural forms—such as television series, documentaries, family websites, science fiction movies—and the technical tools by which they are produced, intimate from the minds that peruse and deploy them. Deleuze states that cinema makes the invisible perceivable: in movies, past reconstructions and future projections materialize into image sequences, which in turn feed the viewer's imagination. Cinema is a matter of "neurophysiological

vibrations" where the image "must produce a shock, a nerve wave which gives rise to thought."⁴³ Memory moves along the axis of time: we are always in a state of becoming. The cultural forms we produce, whether home movies or science fiction films, are at once the result of, and input for, our brain waves. The future of home movies is contingent on the shaping power of past and present (filmic) productions—a shaping power that leads Hansen to shift his focus to the "post-cinematic problem of framing information in order to create (embodied) digital images."⁴⁴

That same circularity applies to the model's horizontal axis relating self to others. Individual family members produce and project home modes while the home mode defines the concept of family as a social unit of belonging. What we call a home movie is in fact a coproduction in which mental and cultural concepts of family and home constantly evolve, at once revising old notions and anticipating new ones. Changing technologies (8 mm film, video, camcorders) are instrumental in the construction of familial memories—images of how a family was, how it presents itself, and how it wants to remember in the future. But the filmic perspective on family is always embodied in individual minds: individual members whose subjective pairs of eyes provide points of view that may at any time diverge or converge from siblings or other relatives. A home movie, like memory itself, is not a self-evident filmic document that chronicles a family's past. Instead, by analyzing the discrepancies and tensions between its various makers and producers, we acknowledge moving images stored in our family archives to be input for—rather than output of—memory acts. The meaning and impact of these documents may always be subject to future reuse and reinterpretation, and hence our notion of family is never established for once and for all.

With the advent of camcorders and advanced editing facilities on personal computers, the awareness of moving images serving as input for future memories is likely to become more prevalent. The rapidly growing cultural practice to record one's life audiovisually by means of ever more digital instruments, combined with the innate inclination of human memory to select and reinterpret the past, presages the immanent expansion of cinematic retrospection. Bolstering this trend is the growing interest of people in multimedia productions that galvanize their remembrance after death; like artists or actors, we want to secure an eternal place in the virtual universe.⁴⁵ Personal recordings of someone's life increasingly resemble

fashionable television formats or conventional film genres. A perfect example is the popularity of memorial videos as part of a funeral experience. Businesses such as *Life on Tape* and *Precious Memories* offer the possibility to turn pictures and home video footage into a smooth five-minute eulogy to be screened during the memorial service or to be burned on a DVD as a gift to family and friends after the funeral.⁴⁶ Reminiscent of the fictive re-memorial in *The Final Cut*, the five-minute eulogy proffers a seamless blend of personal (moving) images into a standard format of pre-selected soft-focused imagery, complemented by the deceased's music of choice. A recent trend to shoot and edit your own memorial movie while still alive and edit the footage into a memorial video—which not coincidentally resembles the biopics of public figures broadcast on television upon their death—seems the next stage in the construction of cinematic hindsight.

Mental projections, technical imagineering, and cultural imaginations can hardly be analyzed as separate manifestations of audiovisual remembrance. Therefore, we need both Deleuze's and Hansen's concepts exploring the construction of memory at the junction of mind and technology, as well as Moran's constructivist theories analyzing the home mode at the intersection of technology and culture. Cinematic constructions of family-life-in-review are the result of concerted efforts to save and shape our private pasts in a way that befits our publicly formatted present and that steers our projected futures. Combining (cognitive) philosophical with social constructivist perspectives and cultural theory, we will be better equipped to understand future constellations of home modes as the multifarious products of mind, technology, and culture.

1. For an interesting exploration of the discussions concerning the construction of family in film and television, see *Shooting the Family: Cultural Values and Transnational Media*, ed. Patricia Pisters and Wim Staat (Amsterdam: Amsterdam University Press, 2005), particularly the introduction.

2. Antonio Damasio, *The Feeling of What Happens: Body and Emotion in the Making of Consciousness* (Orlando, FL: Harcourt, 1999), 11.

3. Gilles Deleuze, *Cinema 2: The Time Image* (Minneapolis: University of Minnesota Press, 2003). Originally published as *Cinema 2: L'image-temps* (Paris: Athlone Press, 1989).

4. There are a large number of books explaining the importance and meaning of Deleuze's philosophical concepts for film theory. See, for instance, Gregory Flaxman, ed., *The Brain is the Screen: Deleuze and the Philosophy of Cinema* (Minneapolis: University of Minnesota Press, 2000); Barbara M. Kennedy, *Deleuze and Cinema: The Aesthetics of Sensation* (Edinburgh: Edinburgh University Press, 2000); and Ronald Bogue, *Deleuze on Cinema* (New York: Routledge, 2003).

5. Patricia Pisters, in *The Matrix of Visual Culture: Working with Deleuze in Film Theory* (Stanford, CA: Stanford University Press, 2003), provides an insightful analysis of Deleuze's theory and film, particularly his conjecture that the apparatus of cinema and the dynamics of brain activity and neural patterns are fundamentally interlaced.

6. Deleuze, *Cinema 2: The Time Image*, 52.

7. For a detailed critique of Deleuze's work, see Mark B. Hansen, *New Philosophy for New Media* (Cambridge, MA: MIT Press, 2004). A more elaborate theory of "virtual embodiment" particularly in relation to virtual environments can be found in Mark B. Hansen, *Bodies in Code: Interfaces with Digital Media* (New York: Routledge, 2006).

8. Hansen, *New Philosophy for New Media*, 194.

9. One of my criticisms of Deleuze's theory concerns his disregard of movies as cultural forms and watching movies as a sociocultural practice. I am not saying, though, that Deleuze completely ignores culture and politics in his writings; the micro-politics of culture are discussed more generally in his works *A Thousand Plateaus: Capitalism and Schizophrenia* (London: Continuum, 1988) and, with Felix

Guattari, *Anti-Oedipus: Capitalism and Schizophrenia* (Minneapolis: University of Minnesota Press, 2003).

10. *The Matrix*, written and directed by Andy Wachowski and Larry Wachowski (Los Angeles: Warner Bros, 1999); *Strange Days* directed by Kathryn Bigelow, written by James Cameron (Los Angeles: Twentieth Century Fox, 1995).

11. Deleuze, *Cinema 2: The Time Image*, 262.

12. A second storyline in the movie narrates the protests of a violent anti-implant group who opposes any form of biotechnological recording; two activists chase Hakman in order to obtain the Bannister files, which would provide a damaging blow to the implant industry.

13. James M. Moran, *There's No Place Like Home Video* (Minneapolis: University of Minnesota Press, 2002).

14. *Ibid.*, 59.

15. *Ibid.*, 103.

16. Patricia Zimmerman, states in *Reel Families: A Social History of Amateur Film* (Bloomington: Indiana University Press, 1995): "Home movie-making, then, synchronized with the elevation of the nuclear family as the ideological center of all meaningful activity in the fifties" (134).

17. Besides Zimmerman, Richard Chalfen, in *Snapshots Versions of Life* (Bowling Green, OH: Bowling Green State University Press, 1987), also ignores the historically changing connection between technological substrates and sociocultural concepts of family.

18. Ozzie and Harriet, for instance, also formed a couple in real life. On the role of families on American television from the 1950s onward, see for instance Lynn Spigel, *Make Room for TV: Television and the Family Ideal in Postwar America* (Chicago: University of Chicago Press, 1992).

19. Contrary to popular belief, American networks have always produced portraits of dysfunctional families as a counterpoint to idealized family series. A number of series that featured family lives represented the struggles and conflicts inherent to the postwar generation raising families in middle class, suburban America. As George Lipsitz argues in *Time Passages: Collective Memory and American Popular Culture* (Minneapolis: University of Minnesota Press, 1990) in his chapter on family in early network television: "One might expect commercial television programs to ignore the problems of the nuclear family, to present an idyllic view of the commodity-centered life. But the industry's imperial ambition—the desire to have household watching at all times—encouraged exploitation of real fears and problems confronting viewers" (56). For a detailed history of nuclear and alternative American families on television, see also Ella Taylor, *Prime-Time Families: Television Cultures in Postwar America* (Berkeley: University of California Press, 1989).

20. Sean Cubitt, *Timeshift: On Video Culture* (London: Routledge, 1991), 37.

21. On the change of the nuclear family in the 1960s, see for instance Arlene Skolnick, *Embattled Paradise: The American Family in an Age of Uncertainty* (New York: Basic Books, 1991).

22. As Moran aptly observes in *There's No Place Like Home Video*, "Each medium attempts to provide a home audience's hankering for audiovisual images of themselves, borrowing from each other over time, thus inventing and reinventing each other's conventions of representation and patterns of interpersonal communication" (106).

23. On the new genre of family portrait and documentary techniques, see Jim Lane, *The Autobiographical Documentary in America* (Madison: University of Wisconsin Press, 2002), 94–95.

24. Jeffrey Ruoff, *An American Family: A Televised Life* (Minneapolis: University of Minnesota Press, 2002), xvii.

25. The series was exhaustively reviewed in the press when it aired in 1973 and afterward; there have also been numerous academic and scholarly articles written that deal with *An American Family* and its documentary mode. For an overview, I refer to the extensive bibliography included in Ruoff's *An American Family*.

26. Ruoff, *An American Family*, 29.

27. *Ibid.*, 88.

28. All family members, but most notably Pat Loud and her oldest son Lance, conceded in hindsight that the presence of a film crew in their house forever changed family life, even decades after the series was aired. Pat Loud wrote a book on her experiences and frequently appeared on television, including when the family was revisited by camera crews ten, fifteen, and twenty years after the actual shooting. Lance Loud, who became a filmmaker himself, even refurbished the last episode in the series: WNET/PBS aired a production of his struggle with, and eventual succumbing to, HIV/AIDS in 2001.

29. On the use of webcams in the private sphere, see Sheila Murphy, "Lurking and Looking: Webcams and the Construction of Cybervisuality," in *Moving Images: From Edison to Webcam*, ed. John Fullerton and Astrid Söderbergh Widding (London: John Libbey, 2000), 173–80. See also Michele White, "Too Close to See: Men, Women, and Webcams," *New Media and Society* 5, no. 1 (2003): 7–28.

30. According to Australian film theorist Keith Beattie, in *Documentary Screens: Nonfiction Film and Television* (Hampshire: Palgrave Macmillan, 2004), the digital camcorder is "creating new visual styles that situate the viewer in an intimate relationship with the subject of autobiography" (105).

31. Moran, *There's No Place Like Home Video*, 47.

32. See the Jacobs Family Website, available at: <http://jacobsusa.com/main/> (accessed April 13, 2006).

33. This peculiar manifestation of what Arild Ferveit, in "Reality TV in the Digital Era: A Paradox in Visual Culture?" in *Reality Squared: Televisual Discourse on the Real*, ed. James Friedman (New Brunswick, NJ: Rutgers University Press,

2002), 119–37, has called the “ambiguous coexistence of digital manipulation and ‘reality footage’ can be explained by a desire to reclaim a sense of reality that is virtually absent in any static collage of digital photos and texts” (130).

34. Jacobs Family Website, <http://jacobsusa.com/main/>.

35. *The Osbournes* was produced and broadcast by MTV. Subsequent DVD versions of the various seasons’ series were distributed by Miramax Home Entertainment. Not the entire Osbourne family participates in the series: one of their three children refused to appear on television. The first season premiered in 2003.

36. Although real life usually does not present itself thematically, each twenty-minute episode of *The Osbournes* is organized as a fast-paced edited sequence capitalizing on a single theme, such as “like father, like daughter” or “won’t you be my neighbor.”

37. For an early discussion on the construction of reality in documentary, see Bill Nichols, *Representing Reality: Issues and Concepts in Documentary* (Bloomington: Indiana University Press, 1991). In postmodern television culture, the conventions of reality are increasingly informed by standards of so-called reality TV, where a contrived family—whether ten people living in a Big Brother house or a group convening on a deserted island—is captured on a reality show by ubiquitous cameras. The legacy of home movie and video is still at work in documentary, just as the legacy of documentary is still at work in reality TV. In coming to terms with these new forms of reality on the screen, media theorist John Corner has coined the term “postdocumentary” to describe new forms of tele-factuality. See John Corner, “Performing the Real: Documentary Diversions,” *Television and New Media* 3 (2002): 255–69.

38. Moran, in *There’s No Place Like Home Video*, appropriately describes this difference: “Digital icons undermine the authority of the video image and distance the artist from the actual process of image creation: whereas analogue video’s aesthetic has been valued as immediate, literal, and naturalistic, digitized video is more often construed as contrived, synthetic, and analytic” (13).

39. The documentary *Capturing the Friedmans*, directed by Andrew Jarecki (New York: Magnolia Pictures) came out in 2003. In that same year, the DVD containing two discs with the documentary and lots of extra materials was distributed by HBO Video.

40. While David had bought and frequently used the video camera, his brother Jesse had a habit of audio-taping the family’s rows at the dining table. Some of these audio-taped fights can be heard in the documentary.

41. In the interview with Andrew Jarecki featured on the DVD, the director relates how in the middle of shooting the film, David Friedman came up with twenty-five hours of taped home video and consented to its being used for the documentary.

42. Andrew Jarecki, in an interview also included on the DVD, states that by making this film, he took an explicit stance against currently reigning notions of reality TV: “We are so tuned now to reality on television, but you watch the

Friedmans for a minute and you see the incredible power of ‘real’ reality as opposed to that reality on CBS-TV where you see people starving on an island, but you know all the while they are surrounded by cameras.”

43. In this quote, Deleuze echoes Antoni Artaud’s beliefs in cinema and the world. See Deleuze, *Cinema 2: The Time-Image*, 167. For an extensive explanation and commentary on this observation, see Patricia Pisters, *From Eye to Brain. Gilles Deleuze: Refiguring the Subject in Film Theory* (Ph-Diss, University of Amsterdam, 1999), 76–85.

44. Hansen, *New Philosophy for New Media*, 270.

45. Kyle Veale has meticulously described this phenomenon in “Online Memorialisation: The Web as a Collective Memorial Landscape for Remembering the Dead” *Fibreculture* 3. Online journal available at: http://journal.fibreculture.org/issue3/issue3_veale.html (accessed December 28, 2006).

46. Life on Tape, a Dutch producer, specializes in memorial videos, available at: <http://www.lifeontape.nl> (accessed December 28, 2006). Precious Memories and More, an American company, offers memorial DVDs to “help survivors memorialize their loved ones.” Available at: <http://www.preciousmemoriesandmore.com> (accessed December 28, 2006).

CHAPTER 7

1. See Scott McQuire, *Visions of Modernity: Representations, Memory, Time and Space in the Age of the Camera* (London: Sage, 1998), 127–38.

2. Gottfried Wilhelm Leibnitz (1646–1716), a German philosopher and mathematician, was the inventor of differential calculus; he wanted to design a universal language, which would facilitate communication via a network of universities. Leibnitz’s cylindrical computer, though never built, signified an important step forward from dead mechanical calculations to a flexible “ars combinatoria,” which would differentiate between the feeding in of data and the calculation itself. Leibnitz also philosophized about a computer based on a binary numerical system. Charles Babbage (1791–1871), a British engineer, is known as the “Father of Computing” for his contributions to the basic design of the computer through his “analytical engine.” His previous “difference engine” was a special-purpose device intended for the production of tables. He never turned his prototypes into working devices.

3. Vannevar Bush (1896–1974) was president of the Carnegie Institute in Washington, DC (1939) and chair of National Advisory Committee for Aeronautics (1939) before he became the director of the Office of Scientific Research and Development. This last role was a presidential appointment and made him responsible for the six thousand scientists involved in the WWII effort.

4. Vannevar Bush’s famous, canonized article “As We May Think” first appeared in *Atlantic Monthly*, July 1945, 101–8. Available at: <http://www.theatlantic.com/doc/194507/bush>, accessed December 30, 2006.