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Digital Photography: Communication, Identity, Memory.

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Abstract

Taking photographs seems no longer primarily an act of memory intended to safeguard family's pictorial heritage, but is increasingly becoming a tool for an individual's identity formation and communication. Digital cameras, cameraphones, photoblogs and other multipurpose devices seem to promote the use of images as the preferred idiom of a new generation of users. This article's aim is to explore how technical changes (digitization) in connection to growing insights in cognitive science and to socio-cultural transformations, have affected personal photography. The increased malleability of photographic images may suit one's need for continuous self-remodeling and instant communication and bonding. However, that same manipulability may also lessen our grip on our images' future repurposing and reframing. Memory will not be eradicated from digital multipurpose tools. Instead, the function of memory reappears in the networked, distributed nature of digital photographs, as most images are sent over the internet and stored in virtual space.

Key words:

Photography, memory, digital technology, visual culture, identity formation, Abu Ghraib pictures

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Digital Photography: Communication, Identity, Memory.

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Introduction

A student recently told me about an interesting experience. She and four friends had been hanging out in her dormitory room, telling jokes and poking fun. Her roommate had taken the student's camera phone to take a picture of the group, laying in various relaxed positions on the couch. That same evening, the student had posted the picture on her photoblog—a blog she regularly updated to keep friends and family informed about her daily life in college. The next day she received an e-mail from her roommate; upon opening the attached jpg-file she found the same picture of herself and her friends on the couch, but now they were portrayed with dozens of empty beer cans and wine bottles piled up on the coffee table in front of them. Her dismay caused by this unauthorized act of photoshopping only aggravated when she noticed the doctored picture was mailed around to a long list of peers, including some people she had never met or only vaguely knew. When confronting her roommate with the potential consequences of her action, they engaged in a heated discussion about the innocence of manipulating pictures and sending them around ('everybody will see this is a joke') vis-à-vis the incriminating potential of photographs ('not everyone may recognize the manipulation') which impact might be less transitory than we think ('these pictures may show up endlessly').

In recent years, the role and function of western digital photography seem to have changed substantially.¹ In the analogue age, personal photography was first and foremost a means for autobiographical remembering, and photographs usually ended up as keepsakes in someone's (family) album or shoebox.² They were typically regarded to be a person's most reliable aid for recall and for verifying 'life as it was,' even if we know that imagination, projection, and remembrance are inextricably bound up in the process of remembering (Stuhlmiller, 1996). Photography's functions as a tool for identity formation and as a means for communication were duly acknowledged, but were always rated secondary to its prime purpose of memory (Sontag 1973; Barthes, 1981). Recent research by anthropologists, sociologists, and psychologists seems to suggest that the increased deployment of digital cameras—including cameras integrated in other communication devices—favors the

functions of communication and identity formation at the expense of photography's use as a tool for remembering. (Harrison, 2002; Schiano, Chen and Isaacs, 2002; Gary and Gerrie, 2005). Although it is undeniable that the functions of photography as communication and identity formation have gained importance, I will argue in this article that photography's function as a memory tool is still equally vibrant, even if its manifestation is changing in the digital era.

Before starting this argument, it is necessary to point out a few misguided assumptions we often encounter when tackling this subject. First, communication and identity formation are not novel uses, but have *always* been intrinsic functions of photography, also in the analogue days. Indeed, a younger generation seems to increasingly use digital cameras for 'live' communication, instead of storing pictures of 'life.' Easy distribution of images over the internet and quick dissemination via personal handheld devices promote pictures as the preferred idiom in mediated communication practices. But what are the implications of this transformed use of photography as a memory tool? Second, personal photography has not changed *as a result* of digital technologies; the changing function of photography is part of a complex technological, social and cultural transformation. As the student's anecdote illustrates, digitization is often considered the culprit of photography's growing unreliability as a tool for remembrance, but in fact, the camera has never been a dependable aid for storing memories, and photographs have always been twitched and tweaked in the process of recollection. Digital photography raises several intriguing questions concerning manipulation and cognitive editing: what is the power of digital tools in sculpting identity? How do we gauge new features that help us brush up our pictures and make our memories picture perfect? It is simply not true that digital photography has eradicated the camera's function as a tool for memory. Instead, the function of memory reappears in the networked, distributed nature of digital photographs, as most images are sent over the wires and end up somewhere in virtual space.

This article's aim, then, is to show how technical changes, in connection to growing insights in cognitive science and to socio-cultural transformations, have affected personal photography's role in communication, the shaping of identity, *and memory*. Underlying this argument is the recurring issue of control versus a lack of control. Part of the digital camera's popularity can be explained by an increased command over the outcome of pictures now that electronic processes allow for greater manipulability, and yet the flipside is that pictures can also be easily manipulated by everyone with the appropriate toolbox. A similar paradox can be noticed with regards to the distribution of personal pictures. While the internet allows for

quick and easy sharing of private snapshots, that same tool also renders them vulnerable to unauthorized distribution. Ironically, the picture taken by the roommate as a token of instant and ephemeral communication may live an extended life on the internet, turning up in unexpected contexts many years from now. As will be argued in the last section, the increased malleability of photographic images may suit one's need for continuous self-remodeling, but that same flexibility may also lessen our grip on our images' future repurposing and reframing, forcing us to acknowledge the distributed presence of pictorial memory.

Live Pictures: Personal photography as tools for communication and experience

When personal photography came of age in the nineteenth and twentieth centuries, it gradually emerged as a social practice that revolved around families wanting to save their memories of past experiences in material pictorial forms for future reference or communal reminiscing. Yet from the early days of photography, we could already distinguish social uses complementary to its primary function. Photography always also served as an instrument of communication and as a means to share experience. As Susan Sontag argued in 1973, the tourist's compulsion to take snapshots of foreign places reveals how taking pictures can become paramount to experiencing an event; at the same time, communicating experiences with the help of photographs is an integral part of tourist photography. Notwithstanding the dominance of photography as a family tool for remembrance and reminisce, the other functions were immanent to photography from the moment it became popular as a domestic technology. In recent years, we can see profound shifts in the balance between these various social uses: from family to individual use, from memory tools to communication devices, and from sharing (memory) objects to sharing experiences. I will subsequently elucidate each of these profound shifts.

The social significance and cultural impact of personal photography grew exponentially in the past century: by the early 1970s, almost every American and western European household owned a photo camera. By the time sociologists and anthropologists began to acknowledge the significance of photography as a cultural rite of family life, Susan Sontag (1973: 8) took on the ethnographer's cloak and described its meaning as a tool for recording family life: 'Through photographs, each family constructs a portrait chronicle of itself—a portable kit of images that bears witness to its connectedness.' Through taking and organizing pictures, individuals articulate their connections to, and initiation into, clans and groups, emphasizing ritualized moments of aging and of coming of age. Cameras go with

family life, Sontag observed: households with children are twice as likely to have at least one camera than households in which there are no children. Photography not simply reflected but constituted family life and structured an individual's notion of belonging. Quite a number of sociological and anthropological studies have scrutinized the relationship between picture taking, organizing, and presenting photographs on the one side, and the construction of family, heritage, and kinship on the other (Hirsch, 1997; Holland, 1991; Chambers, 2001).

Over the past two decades, the individual has gradually become the nucleus of pictorial life. In her ethnographic study of how people connect personal photographs to memory and narration, anthropologist Barbara Harrison (2002: 107) observes that self-presentation—rather than family re-presentation—is now a major function of photographs. Harrison's field study acquiesces a significant shift from personal photography being bound up with memory and commemoration towards pictures as a form of identity formation; cameras are used less for the remembrance of family life and more towards the affirmation of personhood and personal bonds. Since the 1990s, and most distinctively since the beginning of the new millennium, cameras increasingly serve as tools for mediating quotidian experiences other than rituals or ceremonial moments. Partly a technological evolution pushed by market forces, the social and cultural stakes in this transformation cannot be underestimated. When looking at current generations of users, researchers observe a watershed between adult users, large numbers of whom are now switching from analogue to digital cameras, and teenagers and young adults, who are growing up with a number of new digital multifunctional communication and media devices (Chiano, Chen and Isaacs, 2002; Liechti and Ichikawa, 2000). The older group generally adheres to the primacy of photography as a memory tool, particularly in the construction of family life, whereas teenagers and young adults use camera-like tools for conversation and peer-group building.

This distinctive swing in photography's use also shows up in ethnographic observations of teenage-patterns of taking and managing pictures. One American study focusing on a group of teens between 14 and 19 years of age reports a remarkable incongruence between what teenagers *say* they value in photography and how they *behave*: while most of them describe photos as permanent records of their lives, their behavior reveals a preference for photography as social communication (Schiano, Chen, and Isaacs, 2002). Showing pictures as part of conversation or reviewing pictures to confirm social bonds between friends appears more important than organizing photos in albums and looking at them—an activity they consider their parents' domain. Photos are shared less in the context of family and home, and more in peer-group environments: schools, clubs, friends' houses.

Other studies note how teens regard pictures as circulating messages, an interactive exchange in which personal photographs casually mix public images, such as magazine pictures, drawings, and text (Liechti and Ichikawa, 2000).

Part of this change is reflected in the popularity of new technologies. In terms of hardware, the single-purpose camera for taking still pictures gives way to multifunctional appliances, combining the camera function with the personal digital assistant (PDA), the mobile phone, MP3 players, and global positioning devices. These emerging digital tools substantially affect the way people socialize and interact, and by extension, the way they maintain and consolidate relationships. The so-called cameraphone permits entirely new performative rituals, such as shooting a picture at a live concert and instantly mailing these images to a friend. But we also see this change reflected in terms of software.³ In the past three years, photoblogs have become popular as an internet-based technology—a type of blog that adds photographs to text and hyperlinks in the telling of stories. A photoblog, rather than being a digital album, elicits entirely different presentational uses: college students use it to keep their distant loved ones updated about their daily life, but individuals may also use a photoblog to start their own online photo gallery. Photobloggers prefer to profile themselves in images rather than words (Cohen, 2005).

Whereas their parents invested considerable time and effort in building up material collections of pictures for future reference, youngsters appear to take less interest in sharing photographs as *objects* than in sharing them as *experiences* (Kindberg, Spasojevic, Fleck and Sellen, 2005). The rapidly increasing popularity in the use of cameraphones supports and propels this new communicative deployment of personal photography. Pictures sent around by a cameraphone are used to convey a brief message, or merely to show affect. ‘Connecting’ or ‘getting in touch’ rather than ‘reality capturing’ or ‘memory preservation,’ are the social meanings transferred onto this type of photography. Whereas parents and/or children used to sit on the couch together flipping through photo-albums, most teenagers consider their pictures to be temporary reminders rather than permanent keepsakes. Phone-photography gives rise to a cultural form reminiscent of the old-fashioned postcard: snapshots with a few words attached that are mostly valued as ritual signs of (re)connection (Lehtonen, Koskinen, and Kurvinen, 2002). Like postcards, cameraphone pictures are meant to throw away after they are received.

Not coincidentally, the cameraphone merges oral and visual modalities—the latter seemingly adapting to the former. Pictures become more like spoken language as photographs are turning into the new currency for social interaction. Pixeled images, like spoken words,

circulate between individuals and groups to establish and reconfirm bonds. Sometimes pictures are accompanied by captions that form the ‘missing voice’ explaining the picture. For instance, a concert visitor takes a picture of her favorite band’s performance, adds the word ‘awesome’ and immediately sends off the message to her friends back home. Cameraphone pictures are a way of touching base: Picture this, here! Picture me, now! What makes camera phones different from the single-purpose camera is the medium’s ‘verbosity’—the inflation of images inscribed in the apparatus’s script. When pictures become a visual language channeled by a communication medium, the value of individual pictures decreases, while the general significance of visual communication augments. A thousand pictures sent over the phone may now be worth a single word: see! Taking, sending, and receiving photographs is a real time experience, and like spoken words, image exchanges are not meant to be archived (Van House, Davis, and Ames, 2005). In their bounty, photographs gain value as ‘moments,’ while losing value as mementos.

Clearly, we are witnessing a shift, especially among the younger generation, towards using photography as an instrument for peer-bonding and interaction. Digitization is not the cause of this trend; instead, the tendency to fuse photography with daily experience and communication is part of a broader cultural transformation that involves individualization and intensification of experience. The emphasis on individualism and personhood at the expense of family is a social pattern which roots can be traced back as far as the late 1960s and early 1970s. The intensification of experience as a turn-of-the-millennium economic and social force has been theorized most acutely by American economists Pine and Gilmore; commercial products are increasingly marketed as memorable experiences engaging all five senses—sight, sound, touch, taste, smell—and packaged in snappy themes, as to prolong the contact zone between product and consumers (Pine and Gilmore, 1999). Digital photography is part of this larger transformation in which the self becomes the center of a virtual universe made up of informational and spatial flows; individuals articulate their identity as social beings not only by taking and storing photographs to document their lives, but by participating in communal photographic exchanges that mark their identity as interactive producers and consumers of culture.

Pictures of Life: personal photography as a tool for identity formation.

Besides their growing usage as tools for communication and experience, digital photo cameras have been touted as novel instruments of identity formation, particularly as they

allow users to manipulate their own images. However, it should be noticed that photo cameras have always been important instruments for the shaping of self-identity. Some theorists have claimed that personal pictures equal identities ('our pictures are us'), but this claim appears to understate the intricate cognitive, mental, social and cultural processes at work in identity formation (Chalfen, 2002). Roland Barthes (1981: 80) emphasized, in the late 1970s, the close interconnection between identity formation and memory: pictures of family and friends are visible reminders of former appearances, inviting us to reflect on 'what has been,' but by the same token, they tell us how we *should* remember our selves as younger persons. We remodel our self-image to fit the pictures taken at previous moments in time. Memories are made as much as they are recalled from photographs; our recollections never remain the same, even if the photograph appears to represent a fixed image of the past. And yet, we use these pictures not to 'fix' memory, but to constantly reassess our past lives and reflect on what has been as well as what is and what will be. Recollecting is not simply a revisionist project; anticipations of future selves inform retrograde projections, and these mental image maps, in turn, feed a desire to impact 'external' (camera) visions of our selves (Rose, 1992).

The role photographs play in the complex construction of one's identity has been reflected upon in cognitive theory as well as in cultural theory, particularly semiotics. Cognitive psychologists have investigated the intriguing question of how photographs can influence our personal memories (Strange, Gerrie and Garry, 2005). The human mind actively produces visual autobiographical evidence through photographs, but also modifies it through pictures—cutting off estranged spouses or throwing away depressing images of themselves when they were still seriously overweight. Research has shown that people are also easily seduced into creating false memories of their pasts on the basis of unaltered *and* doctored pictures. In the early 1990s, researchers from America and New Zealand persuaded experimental subjects into believing false narratives about their childhood, written or told by family members and substantiated by 'true' photographs.⁴ Over the next decade, these findings were corroborated by experiments in which doctored pictures were used; more than 50% of all subjects constructed false memories out of old personal photographs that were carefully retouched to depict a scene that had never happened in that person's life.⁵ There is a continuing debate whether it is narratives or photographs (or a combination of both) that triggers most false memories, but the conclusion that people's autobiographical memories are prone to either self-induced intervention or secret manipulation is well established (Garry and Wade, 2005).⁶

The close interweaving of memory, imagination, and desire in creating a picture of one's past life has also been subject to theoretical probing by cultural theorists, most notably Roland Barthes. When exploring the intricacies of the camera lucida, Barthes testifies to this complex loop of images-pictures informing desire-memory when describing the discomfort he feels the moment he succumbs to being the camera's object. Having one's photograph taken, as Barthes (1981: 13) observes, is a closed field of forces where four image-repertoires intersect: 'the one that I think I am' (the mental self-image); 'the one I want others to think I am' (the idealized self-image); 'the one the photographer thinks I am' (the photographed self-image); and 'the one the photographer makes use of when exhibiting his art' (the public self-image or imago). Whereas the first two levels represent the stages of mental, internal image processing, the third and fourth level refer to the external process of picture taking and presentation—the photographer's frame of reference and cultural perspective. In contrast to psychologists, Barthes' semiotic perspective emphasizes that cognition does not necessarily reside inside our brains, but extends into the social and cultural realm.

Barthes' exploration of analogue photography elucidates how the four image-repertoires of self intersect and yet never match. They collide at various moments: at the instant of capturing, when 'evaluating' the outcome or photographed object, or while reminiscing at a later point in time, re-viewing the picture. When a picture is taken, we want those photographs to match our idealized self-image—flattering, without pimples, happy, attractive—so we attempt to influence the process by posing, smiling, or giving instructions to the photographer. At a later stage, we can try to encroach the outcome by selecting, refusing, or destroying the actual print. A photographed person exerts only limited control over the resulting picture. The photographer's choice of frame and angle defines the portraiture, while the referent can still be further modified at the stage of development by applying retouching techniques. Roland Barthes obviously feels powerless in the face of the photographer's decisions, lacking control over the image which he wants to equal his idealized self. Its fate is in the hands of the photographer who is taking the picture, and of the chemical, mechanical, and publishing forces involved in its ultimate materialization. Barthes' discomfort signals a fundamental resentment about his inability to fashion pictures 'in his own image.' Since the four levels never coincide, photographs that depict oneself are profoundly alienating, even to the extent of giving the French philosopher a sense of imposture.

Paradoxically, Barthes perceives a lack of control over his photographed image and imago and yet he feels confident he can exert power over the mental and idealized images entering his mind. Although the experienced powerlessness over the photographer's

perspective and the ‘black box’ of the camera vis-à-vis the assumed autonomy over his mental images and memories appears entirely plausible, neither perception can go undisputed. The photographed image—the desire to manipulate public imago—has never been outside the subject’s reach, on the contrary. Since the late 1840s, commercial portrait photographers have succumbed to their patron’s desire for idealized self-images the way painters did before the advent of photography: by adopting flattering perspectives and applying chemical magic. Vice versa, the subject’s power over images entering the mind may not be as manageable as it appears. Cultural ideals of physical appearance, displayed through photographs and evolving over time, often unconsciously influence the mind’s (idealized) images of self (Sontag 1973: 85). Control over photographic images is hence not inscribed in the machine’s ontology, and neither does the mind have full sovereignty over the (cultural) images it allows to enter memory. Instead, control over one’s ‘self-portrait’ is a subtle choreography of the four image-repertoires, a balancing act in which photographic images ‘enculturate’ personal identity.

Now if we replace the analogue camera by a digital one, and laminated photos by pixelated shots, how would this affect the intertwining of mental-cognitive and cultural-material image processes in photography? When trying to answer this question, we are confronted with a conspicuous absence of interdisciplinary research in this area. None of the cognitive studies discussed above pay attention to ways in which individuals use digital photography to manipulate their own personal pictures and memory; the cultural, material, and technological aspects of memory morphing appear strikingly irrelevant to cognitive science. Striking because scientists often mention how their academic interest in manipulated pictures gains relevance in the face of a growing ubiquitous use of digital photography and its endless potential to reconstruct and retouch one’s childhood memories; skills once monopolized by Hollywood studios and advertising agencies are now within the reach of every individual who owns a ‘digital camera, image editing software computer, and the capacity to follow instructions’ (Gary and Gerrie, 2005: 237).⁷ Mutatis mutandis, when turning to cultural theorists for enlightenment, their disregard of psychological and cognitive studies in this area is rather remarkable; semioticians and constructivists typically analyze the intricacies of technological devices to connect them to social and cultural agency.⁸ Yet without acknowledging the profound interlacing of mental, technical, and cultural levels involved in digital photography, we may never understand the intricate connection between identity formation and photography.

It may be instructive to spell out a few significant differences between analogue and digital photography in terms of their (cognitive and technical) mechanisms. At first sight,

digital photography provides more access to the imaging process between the stages of taking the picture and looking at its printed result. Only seconds after its taking, the picture allows a 'sneak preview' via the camera's small screen. The display shows a tentative result, an image that can be deleted or stored. Since a sneak-preview allows the photographer to instantly share the results with the photographed subject, there is room for negotiation: the subject's evaluation of her self-image may influence the next posture. A second moment of re-viewing takes place at the computer, in which images, stored as digital code, are susceptible to editing and manipulation. Besides selecting or erasing pictures, photo-paint software permits endless retouching of images—everything from cropping and color adjustment to brushing out red eyes and pimples. Beyond the superficial level, one can remove entire objects from the picture, such as unwanted decorations or add desirable features, such as sharper cheekbones or palm trees in the background.

Let's be straight about one thing: digitization never caused manipulability or artificiality. Although some theorists of visual culture have earmarked manipulability as the feature that makes digital photography stand out from its analogue precursors, history bespeaks the contrary (Mitchell, 1992). Retouching and manipulation have always been inherent to the dynamics of photography (Manovich, 2001; Ritchin, 1999; Holland and Wells, ...). What is new in digital photography is the increased number of possibilities to review and retouch one's own pictures, first on a small camera screen and later on the screen of a computer. When pictures are taken by a digital camera, the subject may feel empowered to steer its outcome (the photographed or public image) because he or she may have access to stages formerly 'black boxed' by cameras, film roles, and chemical labs. Previews and reviews of the pixelated image, combined with easy-to-use photoshop software, undoubtedly seduce into pictorial enhancement. But does this increased flexibility cause the processes of *photographic* imaging and *mental* (or cognitive) editing to further entwine in the construction of identity? In other words, does image doctoring become an integral element of autobiographical remembering?

Of course, we have already become used to the prevailing use of the 'camera pictura' with regards to the creation of *public* images. Since the 1990s, people no longer expect indexical fidelity to an external person when looking at photographic portraits, particularly those in advertising; almost by default, pictures in magazines, billboards, and many other public sources are retouched or enhanced. Digital 'stock photography' uses public images as resources or 'input' to be worked on by anyone who pays for their exploit (Frosh, 2003). Companies like Microsoft and Getty have anticipated the consequence of this evolution by

buying up large stocks of public images and selling them back to the public domain by licensing their 're-creation.' From the culturally accepted modifiability of public images it is only a small step to accepting your own personal pictures to be mere 'stock' in the ongoing remodeling project of life's pictorial heritage. The impact of editing software on the profiling of one's personal identity is evident from many photoblogs and personal picture galleries on the internet. Enhancing color and beautifying faces is no longer the department of beauty magazines: individuals may now purchase photoshop software to brush up their cherished images. A large number of software packages allow users to restore their old, damaged and faded family pictures; in one and the same breath, they offer to upgrade your self-image. For instance, VisionQuest Images advertises its packages as technical aids to create a 'digital masterpiece of your specification'; computer programs let you change everything in your personal appearance, from lip size to skin tint.⁹ Examples of individuals who use these programs abound on the internet.¹⁰ These instances divulge that the acceptability of photographic manipulation of someone's personal photographs can hardly be separated from the normalized use of enhanced idealized images. Digital doctoring of private snapshots is just another stage in the eternal choreography of the (mental and cultural) image repertoires once identified by Roland Barthes.

The endless potential of digital photography to manipulate one's self-image seems to make it the ultimate tool for identity formation. Whereas analogue photographs were often erroneously viewed as the 'still' input for 'static' images, digital pictures more explicitly serve as visual resources in a life-long project to reinvent one's self-appearance. Software packages supporting the processing of personal photographs often bespeak the digital image's status as a liminal object; pixelated photographs are touted as bricks of memory construction, as software is architecturally designed with future remodeling in mind. As Canadian design scholar Ron Burnett (2004: 28) eloquently phrases it: 'The shift to the digital has shown that photographs are simply raw material for an endless series of digressions. ... As images, photographs encourage viewers to move beyond the physical world even as they assert the value of memory, place, and original moments.' I am not saying, though, that with the advent of digital photography people all of a sudden feel more inclined to photoshop their personal pictures stored in the computer. Neither am I arguing that mental imaging processes change as a result of having more access to intermediate layers of photographic imaging. My point is that the condition of modifiability, plasticity, and ongoing remodeling, equally informs—or should I say 'enculturate'—*all four* image-repertoires involved in the construction of personal memory.

The condition of plasticity and modifiability, far from being exclusive to personal photography, resounds in diverging cultural, medical, and technological self-remodeling projects. Ultrasound images of fetuses—sneak previews into the womb—stimulate intervention in the biological fabric, turning the fetus into an object to be worked on (Van Dijck, 1995). Cosmetic surgery configures the human body as a physical resource amenable to extreme makeovers; before-and-after pictures structure not only subjective self-consciousness, but upon entering the public image repertoire, they concurrently ‘normalize’ intervention in physical appearance. The most remarkable thing about before-and-after pictures abounding on the internet and on television these days is that they do not promote perpetual modification of our *pictures* to portray a better self, but advertise the potential to modify our *bodies* to match our idealized mental images. Contemporary notions of body, mind, appearance, identity, and memory seem to be equally informed by the cultural condition of perpetual modification; our new tools are only in tune with the mental flexibility to refashion self-identity and to morph corporeality. The question whether changing concepts of identity have followed from evolving technologies or the other way around is in fact besides the point. What is more important is to address how the new choreography of image-repertoires operates in a social and cultural climate that increasingly values modifiability and flexibility, and whether this climate indeed allows more individual control over one’s own image.

Pictures for Life? Memory and photography in the digital age.

From the above observations we are tempted to draw the conclusion that digital cameras are becoming tools for communication, experience, and identity formation, moving away from their formerly prime functions as memory tools. But even if we accept that photography is increasingly regarded as an instrument for identity *construction*, rather than one for recollection or reflection, we can hardly conclude these newly foregrounded functions to annihilate photography’s commemorative function. Indeed, digital cameras give rise to new social practices in which pictures are considered visual resources in the ‘microcultures’ of everyday life (Burnett 2004: 62). Yet in these microcultures, memory does not so much disappear from the spectrum of social use as it gets a different form. In the networked reality of people’s everyday life, the default mode of personal photography becomes ‘sharing’. Few people realize that sharing experience by means of exchanging digital images almost by definition implies *distributed storage*: personal ‘live’ pictures sent around through the internet

may remain there for life, turning up in unforeseen contexts, reframed and repurposed. A well known example may clarify the meaning of distributed memory and demonstrate the intertwined meanings of personal and collective cultural memory: the Abu Ghraib pictures.

In May 2004, a series of the most horrific, graphic scenes of torture and violence used by American guards stationed at the Abu Ghraib prison against Iraqi detainees appeared in the press, and were subsequently disseminated through the internet.¹¹ Most pictures were made by prison guards and frequently featured two lower ranked members of the armed forces, Charles Graner and Lyndie England; they often posed thumbs up in front of individual or piled up prisoners who invariably showed signs of torture or sexual assault. The hundreds of pictures taken by prison guards of detainees communicate an arduous casualness in the act of photographing. Clearly, these pictures were made by digital cameras (or cameraphones) deployed by army personnel as part of their daily work routines—perfectly in tune with the popular function of photography as a ritual of everyday communication. As Susan Sontag (2004: 26) poignantly describes in her essay on the case:

The pictures taken by American soldiers in Abu Ghraib reflect a recent shift in the use made of pictures—less objects to be saved than messages to be disseminated, circulated. A digital camera is a common possession among soldiers. Where once photographing war was the province of photojournalists, now the soldiers themselves are all photographers—recording their war, their fun, their observations of what they find picturesque, their atrocities—and swapping images among themselves and e-mailing them around the globe.

Intentionally taken to be sent back home as triumphant trophies or to be mailed around to colleagues, the pictures were a social gesture of bonding and poaching. Some pictures allegedly served as screensavers on prison guards' desktops, another sign of their function as 'office jokes' to be understood by insiders only. The casualness and look-at-me-here enunciation of the Abu Ghraib photographs, conveyed by the uniformed men and women whose posture betrayed pride as if they had just caught a big fish, connotes the function of these pictures as symbolic resources for communication. The last thing these pictures were meant to be by their makers, were objects of lasting memory.

And yet, this is exactly how they ended up in the collective memory of the American people. Once interceded and published in newspapers and on television worldwide, they were reframed as evidence of the army's abhorrent behavior as torturers posing triumphantly over

their helpless captives. The Abu Ghraib pictures became evidence in a military trial that incriminated the perpetrators responsible for the abuse shown in the pictures, but acquitted the invisible chain of command that obviously condoned such behavior. Perhaps most telling was the military's response to the Abu Ghraib debacle. Rather than condemning the practice depicted by the images taken, the military subsequently ordered to ban personal photography from the work floor; pictures made for private use may no longer be taken outside penitentiaries. The 'incident' resulted in stricter communication regulations as well as a prohibition against taking and distributing personal photographs on military premises.

Ironically, pictures that were casually mailed off as ephemeral 'postcards', meant to be thrown away after reading the message, became a permanent engraving in the consciousness of a generation; pictures sent with a communicative intent ended up in America's collective cultural memory as painful visual evidence of its military's hubris. The awareness that any picture unleashed on the internet can be endlessly recycled may lead to a new attitude in taking pictures: anticipating future reuse, photographs are no longer innocent personal keepsakes, but they are potential liabilities in someone's personal life or professional career. The lesson learned from the Abu Ghraib pictures—beyond their horrendous political message—is that personal digital photography can hardly be confined to private 'grounds'; embedded in networked systems, pictorial memory is forever distributed, perpetually stored in the endless maze of virtual life.

The digital evolution that has shaped personal photography is anything but an exclusive technological transformation. Rather, the shift in use and function of the camera seems to suit a more general cultural condition that may be characterized by terms like manipulability, individuality, communicability, versatility, and distributedness. This cultural condition has definitely affected the nature and status of photographs as building blocks for personal identity. Even if the functions of memory capture, communicative experience, and identity formation continue to coexist in current uses of personal photography, their rebalanced significance reverberates crucial changes in our contemporary cultural condition. Returning to the issue of power, it is difficult to conclude whether digital photography has led to more or less control over our personal images, pictures, and memories. The choreography of image repertoires, blending mental and cultural imaging processes, not only seems to reset our control over 'pictorial memory,' but implies a profound redefinition of the very term.

Photographs could never be qualified as truthful anchors of personal memory; yet since the emergence of digital photography, pictorial manipulation seems to be a default mode rather than an option. To some extent, the camera allows more control over our memories,

handing us the tools for ‘brushing up’ and reinvigorating remembrances of things past. In this day and age, (digital) photographs let subjects take some measure of control over their photographed appearance, inviting them to tweak and reshape our public and private identities. As stated before, digital photography is not the cause of memory’s transformation; the digital camera derives its revamped application as a memory tool from a culture where manipulability and morphing are commonly accepted conditions for shaping personhood. Flexibility and morphing do not apply exclusively to pictures as shaping tools for personal memory, but also apply more generally to bodies and things. Memory, like photographs and bodies, can now be made picture perfect; memory and photography change in conjunction, adapting to contemporary expectations and prevailing norms. Our photographs tell us who we want to be and how we want to remember; it is hard to imagine how the abundance of editing tools available will *not* effect our desire to brush up our past selves. Personal photography may become a lifelong exercise in revising past desires and adjusting them to new expectations. Even if still a memory tool, the digital camera is now pushed as an instrument for identity construction, allowing more shaping power over autobiographical memories.

And yet, this same manipulative potential that empowers people to shape their identity and memory may be also used by others to reshape that image. The consequence of digital technology is that personal pictures can be retouched without leaving traces and can be manipulated regardless of ownership or intent of the ‘original’ picture, evidenced by the anecdote at the beginning of this article, about the student who was unpleasantly surprised to find a doctored picture of herself mailed around to (anonymous) recipients. Personal photographs are increasingly pulled out of the shoebox to be used as public signifiers. Pictures once bound to remain in personal archives increasingly enter the public domain, where they are invariably brushed up or retouched to (retro)fit contemporary narratives. It is quite plausible to see personal pictures emerge in entirely different public contexts, either as testimony to a criminal on the run, as a memorial to a soldier who died in the war, or as evidence of a politician’s excess alcohol use in college (Sturken, 1999). Like the pictures shown to subjects in psychologists’ experiments, we have no clue to decide whether they are true or false: is it memory that manipulates pictures, or did we use pictures to create or adjust memory? The digital age will set new standards for remembrance and recall: the terms ‘true’ and ‘doctored’ will no longer apply to pictures, and neither can we speak of ‘true’ and ‘false’ memories.

The function of personal photography as an act of memory, as we have seen, is increasingly giving way to its formative, communicative and experiential uses. Pictures taken by a cameraphone, meant as expendable enunciations to be shared with co-workers, have a distinctly different discursive power than our framed black-and-white ancestor photographs on the wall. We may now take pictures and send them around to a number of known and anonymous recipients. Networked systems define new presentational contexts of personal pictures, as sharing pictures becomes the default mode of this cultural practice. In many ways, digital tools and connective systems expand control over an individual's image exposure, granting her more power to present and shape herself in public.

However, the flipside of this increased manipulability is actually a loss of control over a picture's framed meaning: pictures that are amenable to effortless distribution over the internet, are equally prone to unintended repurposing. But since the framing of a picture is never fixed for once and for all, each re-materialization comes with its own illocutionary meaning attached, and each reframing may render the 'original' purpose unrecognizable. So even if taken with a communicative use in mind, a picture may end up as an persistent object of (collective) cultural memory—evidenced by the Abu Ghraib pictures. The consequences of reframing and repurposing are particularly poignant when pictures move seamlessly between private and public contexts. Of course, this risk is never the direct implication of photography's digital condition, but it cannot be denied that digital media have made reframing a lot easier and smoother. Distributing personal pictures over the internet or by cameraphone, which is now a common way of communication, intrinsically renders private pictures into public property and therefore diminishes one's power over their presentational context.

Anxiety over an individual's ability to control his or her self-image and public imago has not abated since analogue days of personal photography. On the contrary, image control is still a pressing concern in the debates over personal photography in the digital age, even if the parameters for this concern have substantially shifted, adapting to new technological, social, and cultural conditions. We may hail the increased manipulability of our self-image due to digital photography while at the same time resenting the loss of power over one's pictorial framing in public contexts. The enhanced versatility and multi-purposing of digital pictures facilitates promotion of one's public image, and yet also diminishes control over what happens once a picture becomes part of a networked environment which changes its performative function upon each retrieval. Due to this networked condition, the definition of

personal memory is gravitating towards distributed presence. Our ‘live pictures’ and ‘pictures of life’ may become ‘pictures for life’—even if unintentionally.

References:

Barthes, Roland (1981) *Camera Lucida. Reflections on Photography*. Translated by Richard Howard. New York: Hill and Wang. (Originally published as *La Chambre Claire*, 1980. Paris: Editions du Seuil.)

Burnett, Ron. (2004) *How Images Think*. Cambridge: MIT Press.

Chalfen, Richard, and Mai Murui. (2001) ‘Print club photography in Japan: Framing social relationships.’ *Visual Sociology* 16 (1): 55-73.

Chalfen, Richard (2002), ‘Snapshots ‘R’ Us: the evidentiary problematic of home media.’ *Visual Studies* 17 (2): 141-149.

Chambers, Deborah. (2001) *Representing the Family*. London: Sage.

Cohen, Kris (2005) ‘What does the photoblog want?’ *Media, Culture and Society* 27 (6): 883-901.

Dijck, José van (1995) *Manufacturing Babies and Public Consent. Debating the New Reproductive Technologies*. New York : New York University Press.

Frosh, Paul (2003) *The Image Factory. Consumer Culture, Photography, and the Visual Content Industry*. Oxford: Berg.

Garry, Maryanne, and Matthew Gerrie (2005) ‘When photographs create false memories.’ *Current Directions in Psychological Science* 14 : 321.

Garry, Maryanne, and Kimberley Wade (2005) ‘Actually, a picture is worth less than 45 words: Narratives produce more false memories than photographs do.’ *Psychonomic Bulletin and Review* 12 (2): 359-66.

Harrison, Barbara (2002) ‘Photographic Visions and Narrative Inquiry.’ *Narrative Inquiry* 12 (1): 87-111.

Hirsch, Marianne (1997) *Family Frames. Photography, Narrative, and Postmemory*. Cambridge: Harvard University Press.

Holland, Patricia (1991) ‘Introduction: History, memory, and the family album’ in: J. Spence and Patricia Holland (eds) *Family Snaps: The Meaning of Domestic Photography*. London: Virago. 1-14.

Holland, Patricia and Liz Wells,

- Intraub, Helene, and James Hoffman (1992) 'Reading and visual memory: Remembering scenes that were never seen.' *American Journal of Psychology* 105 (1): 101-14.
- Kindberg, Tim, Mirjana Spasojevic, Rowanne Fleck, and Abigail Sellen (2005) 'I saw this and thought of you: Some social uses of camera phones.' *Conference on Human Factors in Computing Systems*, 1545-8.
- Lehtonen, Turo-Kimmo, Ilpo Koskinen, and Esko Kurvinen (2002) 'Mobile Digital Pictures—The future of the postcard? Findings from an experimental field study. In: Laakso and Ostman (eds) *Postcards and Cultural Rituals* (Korttien Talon: Haameenlinna): 69-96.
- Liechti, Olivier and Tadao Ichikawa (2000) 'A digital photography framework enabling affective awareness in home communication' in *Personal and Ubiquitous Computing* 4 (1) (2000): 232-39.
- Lindsay, Stephen, Lisa Hagen, Don Read, Kimberley Wade, and Maryanne Garry (2004). 'True photographs and false memories.' *Psychological Science* 15, (3): 149.
- Lister, Martin, ed. (1995) *The Photographic Image in Digital Culture*. London: Routledge.
- Manovich, Lev (2001) *The Language of New Media*. Cambridge: MIT Press.
- McCarthy, Anna (2002) 'Cyberculture or Material Culture?' *Etnofoor* 15 (1). 47-63.
- Mitchell, William J.T. (1992) *The Reconfigured Eye. Visual Truth in the Post-photographic Era*. Cambridge: MIT Press.
- Mules, Warwick (2000) 'Lines, Dots and Pixels: the making and remaking of the printed image in visual culture' *Continuum, Journal of Media and Cultural Studies*, 14 (3). 303-316.
- Pine, Joseph and James Gilmore (1999) *The Experience Economy. Work is a theatre and every business a stage*. Cambridge: Harvard Business School.
- Ritchin, Fred (1999) *In Our Own image. The coming revolution in photography*. New York: Aperture.
- Rodden, Kerry, and Kenneth Wood (2003) 'How do people manage their digital photographs?' *Computer Human Interaction* 5 (1): 409-16.
- Rodowick, D.N. (2001) *Reading the Figural, or, Philosophy after the New Media*. Durham: Duke University Press.
- Rose, Steve. (1992) *The Making of Memory*. London: Bantam Press.
- Schiano, Diane J., Coreena P. Chen, and Ellen Isaacs (2002) 'How Teens Take, View, Share, and Store Photos' in: *Proceedings of the Conference on Computer-Supported Co-operative Work (CSCW)* New York: ACM
- Slater, Don (1995) 'Domestic Photography and digital culture.' In: Lister, Martin (ed) *The Photographic Image in Digital Culture*. London: Routledge: 1995. pp. 129-146.

Sontag, Susan. (1973) *On Photography*. New York: Delta.

Sontag, Susan (2004) 'Regarding the Torture of Others' *The New York Times Magazine*, 23 May 2004, p. 25-29.

Strange, Deryn, Matthew Gerrie, and Maryanne Garry (2005). 'A few seemingly harmless routes to a false memory.' *Cognitive Process* 6 : 237-42.

Sturken, Marita (1999) 'The Image as Memorial: Personal Photographs in Cultural Memory' Marianne Hirsch (ed) *The Familial Gaze*. Hanover: University Press of New England. 178-195.

Van House, Nancy, Marc Davis, and Morgan Ames (2005) 'The uses of personal networked digital imaging: An empirical study of cameraphone photos and sharing.' In: *Conference on Human Factors in Computing Systems*, 1853-6. New York: ACM.

Wade, Kimberley, Maryanne Garry, Don Read, and Stephen Lindsay (2002) 'A Picture is worth a thousand lies: Using false photographs to create false childhood memories.' *Psychonomic Bulletin and Review* 9 (3): 597-603.

Wright, Chris. (2004) 'Material and memory. Photography in the Western Solomon Islands.' *Journal of Material Culture* 9 (1): 73-85.

Zaltman, Gerald (2003) *How Customers Think. Essential Insights into the Mind of the Market*. Boston: Harvard Business School Press.

NOTES

¹ This article will deal with current socio-cultural practices of western photography. Although the different uses of (digital) photography in various parts of the world would form an interesting matter of comparison, it is beyond the scope of this article. See, for instance, Wright (2004) and Chalfen and Murui (2001).

² I prefer the term ‘personal photography’ over commonly used terms like ‘amateur photography’ or ‘family photography.’ The word personal is meant to distinguish it from professional photography, but also avoids the troubling connotation of ‘amateurish’ in relation to camera use. Family photography mistakenly presupposes the presence of a familial context, whereas photography has always been, and is increasingly used, for personal identity formation. For an extensive discussion on ‘personal photography,’ see Holland and Wells (...)

³ Software engineers increasingly begin to realize that the design of picture management systems requires a profound understanding of why and how users interact with their pictures: the acts of storing pictures in a shoebox or sticking them into albums cannot simply be transposed onto digital platforms (Rodden and Wood, 2003).

⁴ There is a large number of research groups reporting on the issue of false memory as it is related to both narrative and visual evidence. For instance, see Intraub and Hoffman, 1992; and Lindsay, Hagen, Read, Wade and Garry, 2004.

⁵ Research by cognitive psychologists focusing particularly on the role of doctored photographs in relation to false memory is also widely available. See, for instance, Garry and Gerrie, 2005; Wade, Garry, Read and Lindsay, 2002.

⁶ Not surprisingly, these scientific insights are gratefully deployed in marketing and advertising departments, to advance sales by manipulating customers’ memories about their pasts and thus influence their future (buying) behaviour. What customers recall about prior product or shopping experiences will differ from their actual experiences if marketers refer to those past experiences in positive ways (Zaltman, 2003).

⁷ Indeed, without digital photo enhancement equipment, cognitive psychologists would have a hard time to conduct their research on manipulated autobiographical memory in the first place; only with the help of computer paintbrush programs can they make doctored photographs look immaculate.

⁸ In recent years, there has been an explosion of theory on the semiotics and ontology of the digital image, but it is beyond the scope of this chapter to review the literature in this area. As a general introduction to the digitization of visual culture in general and photography in particular, one could consult Lister, 1995; Mules, 2000. A more philosophical introduction to ontology of the image can be found in Rodowick, 2001.

⁹ See, for instance, the software offered by VisionQuest Images, at <http://www.visionquestimages.com/index.htm> (last checked April 8, 2006). A package called Picture Yourself Graphics (www.pygraphics.com) encourages playful collages and manipulation of personal pictures.

¹⁰ Asian-American student Chris Lin, for instance, admits in his photoblog that he likes to picture himself with brown hair; he also re-colors the faces of his friends’ images to see if it enhances their appearance. See Chris Lin’s photoblog at <http://a.trendyname.org/archives/category/personal/> (last checked April 8, 2006). Nancy Burson, New York based artist and a pioneer in morphing technology, attracted a lot of media attention with her design of a so-called Human Race Machine, a digital method that effortlessly morphs racial features and skin colors in pictures of peoples’ faces. For more details on the work of Nancy Burson, see http://www.nancyburson.com/human_fr.html (last checked April 8, 2006) Her Human Race Machine featured in many magazines and television programs in the spring of 2006, most notably in the Oprah Winfrey show

¹¹ The pictures were first made public in the press by journalist Seymour Hersh who wrote the article ‘Torture at Abu Ghraib. American soldiers brutalized Iraqis. How far up does the responsibility go?’ in *The New Yorker*, 4 May 2004, available at <http://www.notinourname.net/war/torture-5may04.htm> (Last checked April 8, 2006).