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Domesticating digital photography¹

This paper explores how digital technology is being domesticated to amateur photography. Rapid technological change within an existing identifiable field of practice gives a classic opportunity for the exploration of processes of domestication; and in so doing, the possibility of critical engagement with the relations between products and the consumer practices with which they co-evolve. The rise of digital technology in photography presents just such an opportunity.

I begin by exploring how digital technology affords and engenders certain changes to practice; and also how it potentially affords more radical changes to what can be done with a camera and the images it produces. Centred here is how digital cameras have enabled an expanding range of possible assemblies with other digital and communication technologies; and the development of different competencies and uses of cameras and images on the part of the user. Based on initial interviews with digital photographers,² I go on to consider the diverse ways in which digital cameras are domesticated to existing photographic practice. What emerges is a tale of chaotic co-evolution of technologies and practice, highlighting the processes of re-ordering technologies, competencies, meanings and norms involved in the re-production of photography as practice. Understanding the uneven processes of re-ordering in photography demonstrates the complex contexts – of existing technologies, competencies, meanings, norms and expectations – into which new technologies and products must intervene to become established parts of the socio-technical landscape.

Digital technology and photography

Digital cameras share with analogue models many basic elements such as lens, aperture and shutter. The basic difference is that, instead of silver-halide film, they use a charge-coupled device (CCD), developed in the late 1960s, to collect light and convert it into digital information which is then compressed and stored to a memory chip. It is only in recent years, since cameras with sensors able to capture 3 megapixels (MP) or more have been able to compete on price with analogue cameras, that digital cameras have seriously competed with analogue cameras in the mass market. But the digital market has risen rapidly to the extent that, in 2004, digital cameras

¹ This note draws on work done for *Designing and Consuming: objects, practices and processes*, a two year project under the ESRC-AHRC *Cultures of Consumption* programme. More details of the project are available from www.durham.ac.uk/designing.consuming

² So far 5 semi-structured interviews with photographers have been conducted and undergone preliminary analysis, with more interviews in early 2006.

began outselling analogue models in the UK. Digital image capture technology is not confined to conventional camera formats, but is increasingly found embedded in other technologies, notably mobile phones and computers.

Digital cameras *can* provide essentially the same functions and purposes as analogue cameras, effectively serving as a straight forward substitution. However, digital cameras have the potential to radically change each step of the photographic process, challenging how photography is performed, and changing the very *practice* of photography. In speaking of photography as a practice I seek to refer to it as a relatively enduring identifiable entity. Whilst it is constituted only in moments and locales of performance – use of cameras, sharing of images, etc – it has existence beyond instances of performance, as interconnected sets of norms, conventions, understandings, embodied know-how, states of emotion and arrays of material things (Reckwitz 2002). Photography, like any other practice, is not something created anew by each practitioner. Rather it exists as something to be drawn on and performed by individuals ‘recruited’ to the practice, who collectively, through their diverse performances, reproduce the practice (Shove et al.). As each performance may result in a unique coalescence of the potential elements of the practice, the practice is itself subject to change over successive performances. So it is that digital cameras, offering to take the place of the central technology around which the practice of photography gathers, inevitably reshapes it. Viewed in terms of domestication, the question can be framed heuristically in terms of how far technology has agency in changing practice, and how far practitioners have agency in shaping technology, in use and in its ongoing commercial development. The remaining sections briefly consider the issue from first one then the other of these perspectives, before drawing back to consider the overall dynamics of the transformative reproduction of photographic practice.

Technology transforming practice?

The majority of digital cameras are designed to offer the same functionality as its analogue equivalent, whether as a point-and-shoot compact or a sophisticated SLR model with manual overrides, etc. A user could choose to have every shot printed as they did with an analogue camera before, the only difference effectively being that a memory card or disc is passed over to a commercial processor rather than a film. In such a case, established practice is barely altered. However, digital cameras evidently give the basis for changing photography.

Image capture is freed from the irreversible commitment involved in taking an analogue picture – the using up of film and the almost unavoidable cost of printing the image, whatever its actual qualities. Besides the reusability of the memory to which digital image data are recorded, the relative ‘freedoms’ of digital photography continue into the options available in subsequent handling of the image. With the camera itself, it is possible to immediately delete unwanted images, and also often to perform limited editing such as cropping or reducing resolution. But much of the novelty of digital cameras is in their capacity for assembly with other technologies, in comparison to the relatively restricted range of options for assembling analogue

cameras with other technologies (apart from those involved in initial capture – external flashes, tripods, filters – largely reproduced on equivalent digital models). For most analogue photographers, the processes between taking a film from a camera and handling the photos was left to professional processing facilities. Only a small minority of photographers would take the time and trouble to gain access to and competence in using the technologies of the dark room to produce their own prints. In contrast, digital cameras can be part of diverse assemblages of technologies. The most direct route from image capture to holding a print is to plug the camera into a compatible direct photo printer. But via other technologies, most obviously home computers, cameras become part of a more complex and distributed assembly of technologies. Computers enable potentially huge collections of images to be organised (or not) and stored either on hard disc, on external media or on the internet. Via editing software, images can be manipulated in diverse ways, from basic cropping and ‘exposure’ adjustment to sophisticated digital editing and compositing. They allow images to be printed on a home printer or uploaded to an internet printing facility; to be shared and displayed in ways not mediated by a printed hard copy, via email, or various web-based means of displaying to friends and families, or to open web fora.

As a result of the assemblages which digital cameras can be part of, and the new ways of handling and using images which these assemblages enable, digital cameras clearly shift some of the grounds of photography. If we take seriously the role of technologies as partially constituting practices, this is self evident. But more explicitly, the bringing of new technologies into the processes of photography changes the competence, skills and know-how involved in the practice. Competent performance as a photographer demands new skills, such as in combining cameras with computers, software, cables etc. But what are the implications of shifting technologies and attendant competencies for the broader characteristics of photographic practice? How are the potentially seismic implications of rapid technological development impacting on what people do with cameras, the purposes and meanings of photography and of images?

Technology domesticated to practice?

It is clear to anyone observing or participating in photography that it is developing in quite radical ways and at all stages of photographic processes. That taking an image is ‘free’ in terms of financial obligation makes people more shutter-happy; the ever reducing size of cameras, and perhaps more especially the embedding of cameras in phones, means that cameras are present, and in use, in spaces and social contexts in which they would have been unlikely before, to the extent that established social norms of what is an appropriate setting for photography are challenged and expanded. The dynamics of this process are demonstrated by anxiety over the use of cameras in public space; and the adding of a audible signal for a picture being captured, often of a camera shutter, to cameras and camera phones, to prevent photos being taken without subjects’ awareness. The ease of sophisticated manipulation of photographs by anyone with a home computer, editing software

such as *Photoshop* and the patience to master it, has eroded expectations of authenticity and objectivity previously associated with photographic images. Means of sending, viewing and sharing images are all well exploited, as evidenced for example by the use of eye-witness mobile phone photos in newspapers after the July bombings in London; or more mundanely by the existence of global web based photographic communities, from fora offering mutual criticism of the technical merits of members' photos to those, such as *Flickr*, offering a format for sharing images of pretty much anything under the sun.

Considering how digital technology is being 'domesticated' to existing photographic practice is a difficult task, as the domestication analytical approach has limited ability to cope with the kind of cyclical, iterative process of co-evolution going on with digital photography. There is no sense of a unified industry attempting to pursue any linear path of development, producing technologies that are either embraced or subverted by users. Rather, the emergence of the technology has set up dynamics of disruption and development of which no single actor appears to be in control. Established giants of the photographic industry, such as Kodak, are having to re-orient rapidly in the face of the changes being wrought by digital technology, whilst its adverts plead with consumers to remember and cherish the feel and uses of a printed photograph. As performances of photography find innovative ways of integrating new technologies with the existing complex elements of photographic practice they collectively form a crucial part of the ongoing development of digital photographic products and so of photography.

However, it is in this process of integration, the domestication of digital cameras, to existing photographic practice, that the limits of the changes wrought by the technology lie. In interviews and observations so far, what emerges most clearly is the extent to which the characteristics of photography endure, in the face of the enormous potential of digital technologies. There are certainly practitioners snapping pictures of their dinner with a mobile phone to post on a daily dinner photo blog, or recording seminar slides to save on note taking. Yet amidst such changes, it is clear that these are elaborations on a continuous, curiously ordered, tradition of photography, with core conventions of legitimate subjects, aesthetics, and social settings and purposes for photography largely unchallenged, despite the increasing technical and social license to photograph anything at all. For the (non-representative and small) sample of photographers so far interviewed, digital technology offers new and better ways of pursuing photographic subjects, ideals and purposes firmly continuous with analogue photography. Whilst socially sanctioned photographic activities and situations proliferate, at the core photographers appear still to be pursuing typical images and records – of family events, holidays, social occasions, recording the life and development of children, or pursuing conventional artistic ideals embedded in the photographic tradition in landscapes, still life and portraits. For respondent D, despite early resistance to digital cameras, his digital camera has enabled him to pursue the kind of technical excellence he dreamt of achieving through ownership of a succession of cameras, from a Brownie as a

teenager through to a Ricoh SLR in recent decades. He now carries his compact Olympus digital with him almost all of the time. The ability to take a picture with no implications for cost or being lumbered with a useless print or slide, immediately assess it and adjust what he is doing with the camera, has enabled him to rapidly develop as a photographer, become more confident with a camera and its use. The camera has dragged him to engage with computers, having resisted IT to the point of taking early retirement partly to avoid having to confront it in his workplace. However, like other respondents interviewed, he retains boundaries around what constitutes acceptable manipulation of images which clearly seek to preserve ideals of authenticity and objectivity of the photographic tradition. So processes such as cropping images, adjusting brightness, contrast and colour balance to compensate for less than ideal exposure, possibly removing undesirable 'blemishes' on the image are within the bounds of acceptability, whereas selective filters, compositing images such as to give a more interesting sky, etc, are a step too far, compromising the authenticity of the image and the craft relationship between photographer, camera and photographic subject.

If digital cameras could somehow have marked the start of a *new* practice, we could well imagine digital photography looking very different to how it currently does. If photography was shaped anew around the technology, it could well have taken a very different shape more directly determined by the specific practical affordances of digital cameras. But instead digital photography is an evolution of photographic practice as digital cameras are an evolution of photographic technology. Whilst they have engendered a reordering of popular photography, the development of new uses and meanings of cameras, photographing and the images produced, the great bulk of photographic activity is recognisably continuous with the peculiarly well ordered social activity of photography as analysed by Bourdieu in the 1960s (Bourdieu 1990). Digital cameras have been domesticated to the practice of photography even whilst they have challenged and changed that practice.

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