"Don't Forget the STAGES!" Searching for Values in Digital Surrogates of Historical Photographs

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Abstract

This paper examines the impact of digitizing historical photographs for online access and considers the following questions: What values are gained or lost in the process of digital reproduction? Are these values important, and, if they are, to whom and at what level?

This ongoing study is approached from the perspective of custodians in photographic archives. Over the past two years we have carried out investigations by interview and questionnaire into the comparative values found in digital reproductions of historical photographs. This has produced original data on critical issues raised by current digitization procedures.

These studies have revealed that technology is currently placed at the forefront of digitization projects but that the technicians responsible for implementing digital procedures are not always aware of the complex nature of historical photographic materials, and are thereby failing to identify both the material and aesthetic values present in the original photograph. In so doing, we argue that the value of information integral to the original photograph is, at best changed, and at worst, significantly reduced by digitization.

Introduction

Whilst digital technology has proved itself to be a flexible reproductive technology that provides an excellent tool for access to, and use of, images for dissemination, manipulation and reference, (Hamber, 1992; Rosenblum, 1984) the utopian vision that technology had the potential to liberate museum and library collections from the confines of the archive, and shared with a global public (Batt, 2002), is proving to be unreliable. Whilst the concept of the democratization of archival collections may have been admirable, in practice it failed to consider the inevitable changes technology would bring to custodial practices including priorities in collection care and the formation of new alliances between fund-raisers, technology experts, custodians, and management. (Ross, 2004).

Our investigations focus on these issues from an object/custodial perspective, rather than from that of the end user. This "front end" focus to our research has enabled us to concentrate on issues that cross the cultural/technological divide between those who are entrusted with the care of our photographic heritage, and those who manage the technology. This has been accomplished by interviewing custodians (archivists, curators, and librarians), and experts, (including photographic conservators, and scholarly image-based researchers) who work in the photographic heritage domain. We are thus more able to define values in digital surrogates and original photographic material, in addition to considering how we are best able to balance those values when developing future strategies for integrating digitization into custodial practice.

Whilst the focus of this paper is the digitization of photographs, we have found that new technology has other, wider implications for the management of heritage collections generally. For example, current digitization procedures focus on ease of access to large numbers of images acquired for global consumption, rather than on maintaining the integrity and context of primary collections. These values are perhaps not considered significant for general reference or browsing searches, however, they could be seen as a loss, or even a distortion of information to those seeking a greater degree of detail in their research.

Whilst our investigations are concerned with heritage collections within the UK, we believe the findings will have relevance at an international level and create further work into the structuring of digital procedures.

Custodial Concerns

The study has shown that custodians have considerable concerns regarding digital surrogates acquired for global use, such as making surrogate resources available at many different levels of access to satisfy the needs of all possible users. The costs and technological difficulties sustained in meeting such needs are beyond the scope of many smaller institutions, thus creating a cultural divide between those institutions with the resources to digitize their collections, and those without. Nevertheless, the pressures on UK institutions, large or small, to make their collections accessible by means of digital technology have, if anything, been increased by recent initiatives announced by the Museums, Libraries and Archives Council.

In the UK, digital projects have been government-driven by schemes such as the *Peoplesnetwork, The National Grid for Learning*, and a *Sense of Place,* requiring "access for all" to our public libraries, museums and other heritage institutions (see, Re:source, 2000). These initiatives were followed in 2003 with a ten-year *Framework for the Future,* (MLA, 2003) which has been further strengthened with the publication of the Report of the Archives Task Force, for creating a new "Archives Gateway." (MLA, 2004) The vision statement for this latest initiative is "that with the commitment of the archives domain, placing access as the highest priority and with the support of funding bodies, rapid progress will be possible."

Access vs Preservation

Here again the focus is on speed and access rather than on maintaining the integrity and preservation of the original sources. Many custodians we have interviewed have found themselves in a dilemma: the choice between taking the line that "To digitize is paramount." sometimes at the cost of the original, or to miss out on funding available for digitization.

For example, we have gathered evidence of digitization projects where the selection of photographs for digitization has been based on reasons of expediency, rather than on a sound, principled audit of the collection; where factors such as preservation and storage of the original; descriptive cataloguing, and scanning to standard levels of competence, have been neglected. The alternative side to the custodial dilemma, whilst problematic but possibly more ethically sound, is that "The primary sources and the different stages they go through are the most important aspect of any digitization project. "Don't forget the STAGES!" the latter appeal was made by a head librarian of considerable experience under pressure to digitize a multi-media collection. These "STAGES" however, are not always easy to obtain.

The provenance and subsequent history of an object is not always available and the research required for gathering such detail can be a time-consuming and difficult task. In this particular instance, even if the records exist, the costs and technical expertise required to input and maintain such a high level of information, becomes both unwieldy and excessive for small institutions to instigate. Puglia (1999) has argued that the costs of cataloguing and preparing photographs for digitization can be excessive. Our research not only confirms this argument, but shows that small institutions are unable to meet such objectives.

Until very recently, UK government-driven initiatives for digitization have disregarded the full ramifications of the yet unresolved debate that surrounds digital preservation and its apparent frailty. (Hunter, 2004; Rothenberg, 2003; Conway, 1999, etc.)

Additional to Beagrie's (2003) observations that "current access initiatives often overshadow the longer term benefits of well-structured sites and the need for sound preservation practices," our work has shown that there are also other far-reaching implications for cultural management. Not least, custodians are now faced with surrogate sources to be maintained and administered, for which long-term preservation is in question. There are other issues to be dealt with such as: identification for cataloguing; the ethics of selection, together with the clearance and administration of rights.

Whilst procedural standards and guidelines stress that digitization should not be seen as a preservation tool (other than to reduce handling of the original), the constant demand to digitize for "access and preservation" (Arts and Humanities Data Service, Visual Arts; Higher Education Digitization Service; MLA; Technical Advisory Service for Images, etc) has created confusion amongst custodians. Many of have expressed deep concerns to us about the maintenance and longevity of digital media, to which they have been asked to commit the collections in their care. Often, it is felt, at the cost of preserving the originals for which (possibly because of its "invisibility") funding is still not seen as a priority. (Beagrie, 2003; Bellinger, 2003; Conway, 1999; Rothenberg, 2003; Sassoon, 2004.) These concerns emphasize custodians questioning the value of digitizing historical collections.

Traditionally, photographic preservation has been the responsibility of the archivist or photographic librarian with the support and advice of photographic conservators. In addition to the conservator's role to preserve and repair photographs, as experts of the photographic medium, an important aspect of their work is to establish photographic processes. This can be difficult to accomplish with the naked eye and sometimes intervening methods are required for correct identification to be made. (Moor & Moor, 1988) Yet, the purposes for which a photograph was created and the processes by which it has been made, form an integral part of the photograph's material information and cannot be separated from it. In other words, there are values within the creation processes which help us to identify and interpret the photograph. For example, it could be said that in terms of a photographic record, not to identify the event or cause of creation, or the processes used, is equal to not knowing the author of a primary manuscript, whether it is paper or parchment, or whether it has been handwritten or typed.

Therefore, whilst digitization may have made some custodians more conscious of preservation issues, by requiring a review of a collection's condition before digitization, the level of expertise required for accurate, in-depth photographic description can be problematic unless custodians have specialized in photographic identification and interpretation. It is not surprising therefore, that this study has found that the complex nature of photography is highly underestimated amongst the custodial community generally, and that during digitization procedures, its preservation needs are sometimes neglected for reasons of expediency.

The principles, techniques and strategies for photographic preservation working practices are under constant review in cooperative research between International institutions. Despite this level of collaboration, photographic experts and conservators are a rare commodity in our heritage institutions both public and private.

Digital Archiving

On examining current digital procedures and the preservation of digital media, we find that it is not the preservation of information carried in the original photograph, that causes the greatest concern, but the longevity of digital media itself, thus reducing the perceived value of digital surrogacy. Within the custodial community, digital preservation is perhaps the most contentious area under discussion. (Beagrie, 2003; Conway, 1999; Hedstrom, 2000; Klijn & de Lusenet, 2000; Marcum and Zorichi, 2003).

The generally perceived view within the digital community, that digitization plays an important role in preventative preservation by reducing the handling of originals, has been put in doubt after the publication in 2000 of the Safeguarding European Photographic Images for Access (SEPIA) report, which found that there has been little or no shift in the number of visitors to original collections since digitisation. (Klijn and de Lusenet, 2000) Whilst there is no doubt that access is one important reason to digitize, the motivations and ethics behind many digital initiatives, where custodians believe they are preserving their collections for the future, certainly bears closer scrutiny.

In 2003, The National Archives (UK) was established as a government department and Executive Agency with a pledge to form a "national archive of digital records for the benefit of the public in the years to come." (Winterton, 2003) This has brought even greater pressure to bear on custodians of historical resources to digitize and store the "nation's investments" electronically.

Whilst there are many international projects studying the implications of digital preservation such as the Digital Preservation Coalition, (DPC) set up in 2001 with Preserving Access to Digital Information (PADI), there is still no surety of digital longevity. This instability of digital media, and contradictory reports only serve to intensify the custodian's uncertainties. Until there is stability in the "long-term viability" of digital media (Beagrie, 2003), a current assessment of the values in digital surrogacy is made problematic.

The somewhat gloomy perspective on digital preservation in which "d-facts" (or e-facts), are fragile objects which become meaningless, because they are "floating around in the electronic ether world...." (Ross, 2000), echoes the fears made by many custodians interviewed for this research: that digital media is fragile; can become distorted; impossible to interpret, or vanish completely unless they are managed correctly. The current speed of growth in digital surrogacy only emphasises the urgency of the problem and for once, the pressure is coming, not from technology, but from the custodial community who want to know that if they do digitize, they can do so in the surety that the digital records will be safe for some period of time, or at least, will survive as long as the original.

Cataloguing Photographs

Don't Forget the STAGES!

Another area of great concern to custodians is that of cataloguing. Historically there is no one standard for describing photographs, but many. Despite current research to find solutions that will solve problems inherent in photographic catalogues and indexes, new description reference models such as SEPIADES (Klijn, 2003), CIDOC (Gill, 2004; Stiff, 2003), and SPECTRUM developed by the MDA (Museums Documentation Association), are not yet in common use. As we have already indicated, finding the provenance of photographs is not always an easy task. Even if the photographer and date are known, the identification of processes in historical collections, can be particularly challenging. For these reasons, together with the sheer numbers of photographs found in many archives, a high proportion have only been listed at collection level. This exacerbates the lack of uniformity in the level of accurate details and descriptive information passed forward to the online user in many photographic websites.

Systems being created specifically for descriptive online bibliographic information of archive collections do not necessarily take into account the chasm between ideal possibilities and what is necessary and practical. Our research shows that the average time allotted for interpretation, indexing, and inputting keywords during a digitization project varies from 6 - 10 minutes per photograph. It is clear from such schedules that project planning and the software presently in use, both fail to meet realistic objectives.

During these investigations, few custodians have considered interpretation and context as being significant to the information required for digitization. As one archivist put it during an interview, "Well, surely that's up to the user." Yet, a user, even a member of the general public needs to have access to information about the who, why, what, when, and where, the "stages" of the creation of a photograph, as well as details of any manipulations technology has provided. If any of this information is missing, individual interpretation is based on pure illusion. This again reduces the value of both the digital image and the interpretation of that image.

Values

Values in Historical Photographs and Their Digital Surrogates

The question of current cultural values being driven by an economic climate that is "essentially blind" (Abbs, 1996) and whether or not this has affected the speed of growth in digitizing historical resources, rather than being based on the needs of those resources and their custodians, is up for examination. However, if Abbs' evaluation is correct then what value can be placed in the resulting digital surrogates?

The literature on the histories of photography, culture, and new technology (See, Abbs, 1996; Barthes, 1993; Coleman, 1998; Edwards and Hart, 2004; Frizot, 1998; Levinson, 1999; McLuhan, 1964; Newhall, 1964) support these investigations by discussing the possible motivations behind digitization projects and by defining the values inherent within photographs, through the processes and purposes for which they have been made.

In the case of short-term digital projects for photographs, our research shows that a climate has been created in which original photographs are sometimes seen as objects of little value for the information they carry, but valued for the income they can generate, thus detracting from their true value as a primary source. The different values to be found in primary material and their digital surrogates has been the source of discussion amongst custodians for some time. For example Knowles, (2000) wrote, "To 'archive' an electronic record means to store it off-line, but does not imply identifying what is valuable." These sentiments have been repeated time and again during our interviews with custodians doubtful about the value of "archiving" electronically because values they feel are inherent in the original, are missing, or reduced, in the digital surrogate.

In the SEPIA survey of photograph collections and digitisation within institutions in the EU (Klijn and de Lusenet, 2000), there is a quotation that affirms a basic argument revealed during these investigations. "The artistic and historical value [of photographs] resides in the original glass negatives, and measures are taken to ensure their conservation." (Jean-Daniel Pariset, 1999 quoted in Klijn and de Lusenet, 2000) This statement echoes custodial views held in our own interview transcripts. For the purposes of this research, these and other similar values held in the original photographs are measured against those of digital surrogates.

Values in Digital Surrogates

Jeff Rothenberg, in his much quoted paper, *Avoiding Technological Quicksand etc*, published in 1999 eloquently discussed what he felt needed to be retained within a digital surrogate for it to have any value:

the retention of its [original] meaning; establishing its authenticity, validity and evidential value; that the user should understand how its creator and original viewers saw it; what they were (and were not) able to infer from it; what insights it may have conveyed to them, and what aesthetic value it may have had for them.

Acquiring all these points in a digital surrogate may seem idealistic but only because current digitization procedures put speed and the number of digital acquisitions before matters of contextual content.

It is felt by many of the photographic conservators and some of the custodians interviewed, that values in digital surrogates can only be retained in part, if digital images are interpreted in such a way as to give a true reflection of their historical value, that is, if the reproduction is carried out with care and integrity and if the records that accompany the surrogate image give an accurate account of their provenance and context within a collection.

The values of digital surrogacy and its influence on visual culture and the management of our cultural institutions are issues often raised in terms of technology and cultural aesthetics. For example, in Murphie and Potts (2003:4) there is concern about the divisions made by the artificiality of technology, a digital object being *unreal* as opposed to *real* and the influence this could have on society, both in terms of cultural and ethical values. Especially if, as our investigations suggest, the driving force behind technology and the values it upholds are shaped by political and economic circumstances. This gathering of assorted factors that make up internet technology verifies that, "The Internet is at once a technological, a cultural, a political and an economic phenomenon." (Ibid)

Conclusions

The view that digital technology provides unproblematic access to collections and is straightforward to achieve, fails to acknowledge that digitization can be an extremely complex area of technology, especially when applied to historical photographs with their diversity of formats, processes and supports (Frey and Chapman, 2003; Hunter and Choudhury, 2004). Our investigations suggest, as Lewis feared twenty years ago, that we are in danger of losing access to the physicality of cultural objects and "throwing the baby out with the bathwater"? (Lewis, quoted in Thompson, 1982; also see, Sassoon in Edwards and Hart, 2004)

Constants that appear in the interview data collected to date include: project funding; ethics of selection; organizational matters; identification; interpretation; cataloguing and descriptive terminology; copyright clearance and rights management; technology maintenance and updating; preservation and the long-term storage of both the original photograph and its digital surrogate. Our data also suggests that where the reproduction of heritage collections is concerned, possibly the wrong questions are being asked of technology: by looking at ways to perfect digital reproduction in the quality of the image, and by making processes faster and cheaper.

Perhaps by overestimating the requirements expected from digital reproduction, technology has dwelt on perfecting the end result without recognizing the importance of the "STAGES" described earlier. Whilst acknowledging that such technical issues are important in an increasingly competitive market place, this end-product approach sits unhappily alongside the scrupulous care required to manage vulnerable original resources. In our concerns about technology's memory, we have perhaps forgotten the importance of the inherent memory of the primary source, the negative or original print, and the values it holds: the photograph's own processes and technologies; why and when it was created; the people who created it and their contribution to our technological, social and cultural histories. Most custodians are aware of the values held within primary sources, although it has become obvious during these studies that there can be wide discrepancies between the expectations and values held by different custodial practitioners. For example, the training of librarians and archivists is given from different perspectives; the former to give access, the latter to record, interpret, and preserve. These are matters that professional organizations need to take on board if custodian's are to keep up to date with technology.

Differences apart, what all custodial professionals appear to need from technology is the authenticity and sustainability of information, which is secure over the long-term, and which meets the requirements of intended use.

The final conclusions for this research have yet to be drawn but it is becoming apparent that a major determining factor in the long term success and viability of digitizing historical photographs is whether the digitization itself is undertaken as a short term project, separable from the main activity of a repository, or whether digitization is integrated with core custodial activities. Our interview data reveals that even for small institutions, the success of a project depends on informed planning, by staff who have knowledge of the collections to be digitized; where new technology can be integrated with existing systems and where expertise built upon in the past is not discarded in order to facilitate technology which is constantly changing. (Dorner, in Deegan and Tanner, 2002:15).

Most of the "horror stories" of failed projects we have come across during our research, stem from cut corners and expediency caused by the need to deliver a digitized "product" by a deadline to a finite budget. At best, these projects produce the required number of images online but images that lack authenticity and therefore any lasting value. However, the examples we have seen of custodians who are happy and confident with their digitization work are generally performing digitization as part of their core activities. In such scenarios all the "STAGES" are dealt with and responsible collection care is maintained.

In the final analysis of the data we have collected, we will be able to summarize comparatives in terms of informational, material and aesthetic values found in photographs and their digital surrogates. The results will also include quantitative, comparative data taken from a study of current international digitization procedural standards and guidelines which verify the variants and usefulness of such procedures. Having once established evidential answers to the question of values, we shall be more able to determine the validity of digitization as a reproductive tool for historical photographs.

Finally, the research demonstrates that the partisan view of many technical experts fails to appreciate the complexities of traditional collection management and photographic materials. The enormous potential of new technology within the cultural institutions it seeks to serve, can only be fully realized if new, cross-discipline frameworks are established.

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Biography

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