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**Controlling Digital Manipulation in Photojournalism:
An aggressive solution to a contentious problem**

by

Heather C. Devine B.A. (Hons)

**A thesis submitted to
the Faculty of Graduate Studies and Research
in partial fulfilment of
the requirements for the degree of**

**Master of Journalism
School of Journalism and Communication**

**Carleton University
Ottawa, Ontario
19 January 1996**

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**"Controlling Digital Manipulation in Photojournalism:
An aggressive solution to a contentious problem"**

submitted by Heather C. Devine B.A. (Hons)

in partial fulfilment of the requirements for

the degree of Master of Journalism

Thesis Supervisor

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Carleton University
January 19, 1996

ABSTRACT

The implementation of digital technology into news organizations has seriously affected the credibility and informative value of news photographs. To protect these values, photojournalists and photo editors have tried to execute several solutions. However, these solutions were developed within the parameters of a socialization process where ethical principles were oriented to a different, chemical based technology. As a result many of the implemented solutions leave news organizations and photojournalists ill-prepared to combat problems which require a new and aggressive approach oriented specifically to controlling ethical issues which arise under digital technology.

The most efficacious, but unpopular, solution is for photojournalists to professionalize and to implement a uniform trademark symbol of quality. This solution would provide photojournalists and photo editors legal means to enforce ethical guidelines which would help to ensure the credibility of news photographs; protection against news organizations which decide to publish digitally manipulated photographs; and the ability to direct the development and use of digital technology within the medium.

**This thesis is dedicated to the memory of my sister Colleen Elizabeth Devine
(1970-1993)**

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INTRODUCTION

An incredible amount of care was taken to make it look real. If it [the digital manipulation] was more obvious what had been done, it wouldn't be so offensive.

Paul Degenstein (1992)

Early in August 1995, Neil Graham, managing editor of the *Vancouver Province*, decides to publish a two-page colour portrait of Alexander Mogilny wearing a Vancouver Canuck uniform. Mogilny has just been traded to the Canucks and holds a press conference to confirm the trade and to give the press a photo opportunity. He appears wearing street clothes so the only pictures available for publication are of Mogilny in street clothes, or wearing his previous team's uniform.

Graham realizes that no one will have a picture of Mogilny in a Canuck uniform because no such photograph exists. To beat the competition, Graham decides to have a graphics artist superimpose Mogilny's head onto the body of a hockey player wearing a Canuck uniform. In a later interview, Graham candidly discusses his decision to publish the digitally created photograph and the process which achieved it:

He [Alexander Mogilny] has never played in a Canuck uniform, only a Buffalo uniform. So our option was Alex in a Buffalo uniform or civvies. We put him into a Canuck uniform. We used Pavel Bure's body because both [players] shoot left and hold the stick in their left hand. We changed the name on the stick, and changed the numbers on the jersey from 10 to 89. We changed the name on the helmet and changed the name on the gloves.

Graham concludes, "Now we do it so well it [the manipulation] is virtually

unnoticeable." This photograph was created by Graham for 'fun'; he believed it would help his sports and entertainment tabloid beat the competition by publishing a unique photographic image.

Graham argues this digitally manipulated image harmed no one and provided entertainment for many viewers. However, Graham's decision to digitally manipulate a news photograph is only one incident of many where the credibility of photojournalism is sacrificed for a better, more competitive photograph which is digitally created on a computer. The repercussions of decisions like this are serious for both the journalism community and the public because each time a digitally manipulated photograph is published, the factual credibility of photojournalism is eroded.

Consider a trio of photographs where three men, all speech writers for former Canadian political party leaders, smile at the reader. Each looks like a corporate replica of the other, all are posed at the same angle. It is not the men who are the focal point of these pictures, however, but the three ventriloquist dummies resembling their bosses on their laps. Above the head of each dummy hangs a blank white comic-strip balloon, waiting to be filled with words (*Saturday Night*, 1992, p. 32).

At first glance, the photograph appears to be a satirical prank where the speechwriters posed to mock their political employers. However, in reality these three photographs were digitally fabricated in an electronic darkroom. The speechwriters never posed a dummy resembling their employer on their laps, in fact, they never saw the dummy before the

photographs were published.

"I was on a stool with one leg unnaturally high and one arm unnaturally low," Warren Kinsella told Chris Cobb, media reporter for *The Ottawa Citizen*, in a later interview. "It was uncomfortable. I asked to change my pose but he didn't want me to" (Cobb, Saturday, March 14, 1992, p. B1). The speechwriters were told how to pose by photographer Chris Nicholls and then, later, Nicholls and computer technician Louis Montpetit cloned each dummy into the photograph.

In the published photographs, there is no indication that speechwriter and dummy were not photographed together. "It was really well done," Paul Degenstein told Cobb. "An incredible amount of care was taken to make it look real. If it was more obvious what had been done [the digital manipulation], it wouldn't be so offensive" (Cobb, Saturday, March 14, 1992, p. B1). In addition to the care taken to make the photographs appear real, the magazine published each photograph within a black slide frame bearing the trade name Kodak. This added further authenticity to the photographs, granting them the appearance of rough, unprocessed photographic material. Readers were induced to believe the photographs were factual, or true representations of reality, when they were actually created on a computer with specialized software.

There are literally hundreds of examples of digitally-manipulated photographs being portrayed as reality and the following illustrate the variety and scope of its abuse:

- * *Vancouver Province* puts Alexander Mogilny's head on Pavel Bure's body to create a photograph of Mogilny in a Canuck's uniform (August, 1995).
- * *Vancouver Sun* creates a photograph of a Vancouver player skating and holding the Stanley Cup over his head to simulate the Vancouver Canucks celebrating winning the Stanley Cup (June, 1994) (Chris Campbell, 1995, p. 3).
- * *Time's* cover photograph of O. J. Simpson's arrest (June 21, 1994) is digitally manipulated so that his facial shadows make him appear more sinister;
- * *National Geographic* (February, 1982) published a manipulated cover photograph where the pyramids at Giza are moved closer together to make a vertical photograph rather than a horizontal one;
- * Production personnel at the *Orange County Register* mistakenly "corrected" the colour of a swimming pool dyed red by vandals back to blue (Becker, 1991, p. 388);
- * *Newsweek* merged two photographs to imply that Tom Cruise and Dustin Hoffman were posing together when they were actually on opposite coasts at the time (Kenney, 1993);
- * *TV Guide* placed Oprah Winfrey's head on Ann-Margret's body, darkening Margret's body and slightly lightening Winfrey's head (Kenney, 1993);
- * *Texas Monthly* put Anne Richards, Governor of Texas, on a motorcycle by superimposing her head on a model's body (Kenney, 1993);

These digitally fabricated photographs reveal a multitude of issues that challenge journalism today: What credibility will future photographs have when the ease of digitally fabricating photographs and its extent in today's media is fully appreciated by the public? Is there a future for

credible visual elements in journalism if they are subject to this kind of undetectable manipulation? Why do many journalists endorse the incorporation of digital technology which often affects the qualitative content of information products? Will new media products which incorporate videos and still photographs be affected by digital manipulation?

It is a timely venture to examine these issues for two reasons: the effects of digitization have exerted tremendous practical and qualitative influences on the media, which have already embraced the new technology enthusiastically (Lester, 1991). And as innovators and publishers turn their attention to journalism's future, the new media products they propose are entirely digital (Fidler, 1994). This thesis seeks to tackle the issue of the digitization of photojournalism because, while a number of researchers have documented the effects of digital technology on media (Becker, 1990; Burnham, 1983; Dahlgren & Sparks, 1992; Lester, 1991), few have recognised the recent (within the last few decades) lack of adjustment to the new technology with regard to the application of ethical principles by journalists and the potential effects this may have on the journalism trade. This thesis seeks to address both issues in a case study of the digitization of photojournalism and the consequent diminishing credibility of news photographs.

The alternative, a general review of the influences of digitization on the collection and dissemination of information in all media, would be repetitious and lengthy and would provide little opportunity for specific

insights. Additionally, digitization is a change of technology which affects all media; it transfers all information into the same medium: binary digits. Whether the technology change occurs in radio, television, or photography, the equipment, technology and required practical adaptations are basically the same for all three (Tomlinson, 1993). A case study of photojournalism is, therefore, useful for two reasons: aspects of photojournalism are pertinent to both broadcast and print media so the diminishing credibility of photojournalism has the potential to affect most media; and, while photojournalists have illustrated tremendous flexibility in adapting to changes in chemical technology, they appear to be unable to adapt their ethical practices and principles to changes effected by digital technology.

Becker (1991) partially addresses the latter issue in her article, "To Control Our Image: Photojournalists and New Technology." She concludes:

No other journalists face the same degree of change in the tools they use for gathering, processing, selecting, editing and distributing news. Historically this has meant that photojournalists are repeatedly challenged to adjust their work strategies to technological change, while remaining true to existing standards of journalistic practice. (p. 383)

What Becker does not discuss in detail but which is of direct relevance to this thesis, is that photojournalists were able to successfully adjust their ethical work strategies and decision-making process to technological innovations only while they were operating within the confines of chemical technology. The findings of this thesis illustrate that the ethical guidelines which were part of the success of photojournalism,

affording news photographs credibility, integrity, and sound informative value were successful only when they were operational within the limitations imposed by the nature of chemical technology. The limitations centred around the need for an image to exist in some form before a camera to produce a photograph. When the technology changed to digital, however, and this basic but integral restriction was removed completely, the ethical guidelines were unable to provide effective restraints against manipulative techniques. The further the limits were stretched by technology, the more problematic they become. It is this situation that photojournalists face today.

As a result, when news organizations changed to digital technology photojournalists were no longer able to successfully adapt these strategies. Additionally, the new technology changes operational practices which influences camera operation, development techniques, pagination methods, manipulation techniques and global transmission of photographs. This thesis proposes that photojournalists who approach the new technology with ethical strategies oriented to the restrictions and abilities afforded by chemical technology have not been able to adapt their strategies in a manner which facilitates the continued production of quality, credible news photographs.

The new technology is implemented into ethical practices which are still oriented to traditional standards and values developed under chemical-based technology because the social structure of journalism which guides journalistic ethical practices and behaviour has not adapted to the

comprehensive technological change. The effects of this are visible in many aspects of journalism from the advent of electronic newsgathering to its homogenization of foreign news content (Galtung & Ruge, 1965) and, to some extent, national content by chains such as Southam, or the implementation of digital darkrooms in photojournalism and the photojournalist's loss of power (Becker, 1991). Applying strategies developed under a traditional technology to one that is new and completely different leads to confusion and poor use of information resources. This prevents the realization of the new technology's potential and diminishes the quality of journalism products as well. This is evidenced in the significant increase in the propensity of mainstream news magazines and newspapers to publish digitally manipulated photographs which deceive readers (Lester, 1991; Becker, 1991).

This thesis examines two possible explanations for the recent difficulties faced by photojournalists in their efforts to adapt their ethical strategies to the new technology: One, the strategies originally suited to chemical technology have, under the influence of digital technology, become too removed from the original edict which served as the structural base for ethical guidelines and which also originally provided definitive direction with regard to the control of manipulative techniques. Two, the change in technological format means that photojournalists have lost some control and decision-making powers since aspects of both have transferred to production personnel and copy editors.

Since both explanations rest on the work strategies and decision

process formulated and applied specifically by photojournalists and more generally by journalists and news organizations, it is useful to understand the strategies and process guiding journalism practices and how they determine the content and format of news photographs. Chapter one outlines these aspects in detail, tracing the historical development of photography as it relates to journalism including the progression from a photographic style to news medium. It avoids focusing on the rise and fall of photojournalism from a socio-cultural perspective and focuses instead on the struggle by photographers and photojournalists to bring photography into journalism as a valued and unique news medium. What is central to this thesis is the nature and constitution of the occupational group most affected by technology. Emulating an approach taken by Karin Becker (1991) in her studies of technology and its effects on photojournalists, the first chapter is based on the assumption that: "Any broader 'effect' within the public sphere is mediated by the understandings and applications photojournalists create for the new media" (p. 384). Therefore, chapter one centres on the medium of photojournalism itself.

Chapter two provides an analysis of why the implementation of digital technology in journalism has been approached by news organizations in the way that it has. This chapter focuses primarily on the failure of news organizations to control digital technology, and the repercussions of solutions they have effected in response to their speedy implementation of expensive and complex technology which changed newsroom and production procedures.

In Chapter three, the thesis examines reasons for the failure of the decision process which worked so well in chemical photography, and seeks to prove that to successfully integrate digital technology into journalism, journalists must change from an adaptive system to one where they create new strategies which recognize the differences imposed by digitized practices. Finally, this thesis concludes that photojournalists must change the dominant social structure and management style within their trade so that they become accustomed to the characteristics of digital technology and retain the informative value traditionally attributed to the news (Stephens, 1988). They must professionalize and implement the use of a trademark which embodies credibility and integrity of photographic content. Further, it is proposed that this change must be aggressively implemented to enable photojournalists to force news organizations to adhere to ethical standards.

It is crucial to quality journalism, which is defined here as being journalism oriented to reporting credible news and information with integrity, to retain its informative value because once this value is destroyed, news offers nothing more than entertainment without substance. News and its informative value is, therefore, of primary interest to this thesis. According to Mitchell Stephens (1988), author of *A History of News*, "news can be defined as new information about a subject of some public interest that is shared with some portion of the public" (p. 9). Based on a study of newspaper readers who had been deprived of their primary news source, Stephens (1988) concludes that readers use newspapers:

... as a source of pragmatic information -- on movies, stocks or

the weather; they use them to keep up with the lives of people they have come to "know" through the papers -- from the characters in the news stories to the authors of the columns; they use them for diversion -- as a "time-filler"; and they use them to prepare themselves to hold their own in conversations. (p. 16)

"This list," writes Stephens, "might serve as an outline of the basic functions news performs in any society" (Stephens, 1988, p. 16). The news provides people with information on a variety of topics, but in order to provide dependable information which people can assimilate into their knowledge base, it must satisfy certain requirements for news presentation, format, credibility, and accuracy.

These requirements must be delineated because different styles of media offer different kinds of information; for example, mainstream newspapers offer different styles, views and news quality than sensational or alternative style newspapers. The former is usually considered to offer information of a more credible nature than the latter. The average person who wishes to use newspapers as a pragmatic source of information usually gets his or her news from mainstream newspapers which are readily available in almost every city. This style of newspaper, exemplified by, for example, *The Ottawa Citizen*, *The London Free Press*, and *The Toronto Star*, provides daily news that appears informative and credible (Stephens, 1988).

Recognising the importance of the informative value of news and that some media specialize in producing news of this calibre strengthens the argument that journalists must recognize the extent of the changes to

journalistic practices which occur once they are digitized. No longer is the basic technology being constantly revised, it has now changed completely into a different venue. What is important to this thesis, is that since the effects of the new technology are not fully implemented into journalism, it is still possible to anticipate potential effects and then realize the means to control them. The underlying premise is that photojournalists must refine their traditional decision-making process and their methods for the application of ethical guidelines to protect the quality of their product.

It must be understood that the implementation of the above premise is a complex and difficult task. This difficulty is exacerbated because digitization is pervasive and it affects journalism by creating a significant difference in the following three regimes: the structure of belief systems, newsgathering, and the means of newspaper production. Without adequate ethical principles operating within each of these regimes, a lack of ethical control has resulted over news photographs which ultimately threatens the credibility of journalism. It is a premise of this thesis that if controls and direction are not imposed there will be no alternative for those who wish to preserve the integrity of their print media except to discard visual imagery as a credible source of visual news. In short, if left to the whims of those not governed by the principled ethical concerns of journalists, the visual news media could eventually be demoted from news to purely entertainment media without informative substance (Rosensteil, 1989). If this occurs, the future of journalism may be jeopardized as new, interactive media products depend heavily upon visual imagery.

Therefore, in photojournalism the technological revolution is well advanced; more and more photographs are produced and formatted digitally in electronic darkrooms. The effects of this revolution cannot be reversed or changed; journalists can only work to create new strategies to cope with new working environment within the new technology, with its new responsibilities and its emphases on different factors. To ignore this revolution and its consequences is to allow technological innovation to follow a haphazard course with the ultimate end that the standards of quality may be irrevocably compromised. This thesis endeavours to suggest several solutions which may prevent this end.

CHAPTER ONE

From Photography To Journalism: The Development Of Photojournalism As A News Medium

In gathering news photos, photographers should act as objective observers capturing reality on film. Photographers should not manipulate anyone or anything for the sake of a "stronger" image. Photographers should also take care to avoid being manipulated themselves.

The Ottawa Citizen, 1991

The above is probably a fair summary of the principles and standards endorsed by many mainstream photojournalists and newspapers. It summarizes the general purpose of photojournalism: to capture reality. It outlines the parameters within which this purpose can be achieved: objectively and without overt manipulation.

These principles did not develop overnight. From an entertaining hobby, the ethical principles of photojournalism grew to form a comprehensive social structure guiding the practices of thousands of photojournalists and providing millions of viewers with credible glimpses of newsworthy images they might never see otherwise. These principles are closely related to four separate but related facets of photojournalism: the technology of photography; the photographers and photojournalists who wield the technology; the newspapers which utilize photojournalism; and the public, or consumer, which embodies the market for the product. Each, in its own way, has influenced the development of mainstream principles and practices of photojournalism.

Since photography's invention, photojournalists have continually

adapted to basic changes in chemical and other aspects of photographic technology (Becker, 1991; Goldberg 1981; Newhall, 1964). "Technological innovation," writes Becker (1991) "is persistent and continuous within photojournalism" (p. 383). While many changes were beneficial to the process of implementing photography as a tool of journalism, during the last twenty years photojournalists have failed to synchronize journalistic ideals and technological change. Consequently, as the technology became more complex photojournalists found it increasingly difficult to successfully adapt work strategies and ethical guidelines to retain a constant level of control over the parameters of their work.

The work strategies and boundaries referred to here are part of the social structure of journalism. Journalists who work for similar mainstream news organizations, for example *The Toronto Star* and *The Ottawa Citizen* generally share common principles and practices. This sharing of common principles has created the circumstance where journalists have become part of a coherent social structure which guides and maintains their journalistic behaviour. One result of this structure's influence on journalism is that rather than devise new and innovative principles to compensate for the removal of limitations, journalists continue to apply traditional and (with respect to digitization) now outdated conventions. John Calhoun Merrill (1974) views this phenomenon almost with despair. In his book, *The Imperative of Freedom: A Philosophy of Journalistic Autonomy*, Merrill laments;

American journalism is becoming so institutionalized and

professionalised and so immured with the nascent concept of "social responsibility," that it is voluntarily giving up the sacred tenet of libertarianism -- "editorial self-determinism" -- and is in danger of becoming one vast, grey, bland, monotonous, conformist spokesman for some collectivity of society. (p. 3)

It is an assumption of this thesis that, as stated above by Merrill, the institutionalization of journalism has created a coherent system or social structure which ultimately prevents journalists from effectively adapting their ethical principles to the new technology. In fact, the rigidity of the social structure encourages conformity to traditional ethical practices which have been successful for over 150 years within chemical technology. The structure encourages conformity because newly hired and newly trained photojournalists embrace and emulate ethical principles of photojournalists already in power. Unfortunately, while new photojournalists believe they are acting professionally by embracing these concepts, this process actively discourages innovation which is necessary to create new applications for ethical principles within digital technology. What is prized in this process are already existing principles developed within the old technology; therefore, when this is combined with the rigidity of the socialization process, where photojournalists are always looking to what has already occurred for ethical guidance, what results is a system which works to prevent the creation of new ethical principles and guidelines.

The factors which contribute to the institutionalization of journalism and comprise and maintain the coherent social structure become clear

when understood within the context of a role-theory approach. Patrick R. Parsons, John Finnegan, Jr., and William Benham (1988) conclude:

... journalists learn roles primarily by socialization -- communication in which others indicate how others expect roles to be played. Social control is applied to ensure that these expectations are fulfilled. (p. 93)

In this quote, Parsons et al. are directly referring to the control of journalists by owners, where the journalist is socialized to carry out the editorial wishes of the owner either consciously or unconsciously. These wishes are assimilated by journalists in various ways (Pohle, 1982). Journalists learn their roles initially through peer pressure which, writes Warren Breed (1960), is socialized through osmosis (Pohle, 1982).

Socialization and social control are very influential in journalism because journalists need to belong to a defining collective. John Calhoun Merrill (1974) writes that most journalists:

... like to feel that they belong to a group, an organization, a body of practitioners sharing similar skills, values, and goals. Increasingly the single individual is pressured to join, to cooperate, to conform, and to accept as his guiding principles the social norms of his group, his organization, or his society. He is pulled closer together with others by the powerful magnet of collective thought and action for the public good. (p. 123)

This is not to imply that journalists like to conform for conformity's sake; rather, they need to belong to a body of practitioners which shares similar principles, values and goals in order to produce news products with certain recognizable qualities. For example, mainstream newspapers differ from other informative publications such as an annual report or research journal. News articles, features and editorials offer certain styles

of writing and fact presentation which are appreciated by the consumer for their specific attributes. To achieve this end, journalists devised methods of adding value to information to make it into news. These methods of fact collection and presentation were combined with a distinct writing style to identify journalistic materials with certain informative qualities such as timeliness, accuracy, and material depth.

To elaborate further upon the importance of the socialization process, journalists do not belong to a profession, and yet journalism practices are still recognized as being imbued with certain, fairly congruous qualities. For example, medical doctors are professionals which means that a governing body has been appointed to ascertain that licensed doctors operate according to defined and regulated ethical principles and standards. A physician who is determined to be operating outside these standards may be stripped of his or her licence and barred from continuing to practice. Within this system, patients or consumers have some protection against abusers as well as a concrete idea of the proper role of a physician. A journalist, however, is not a professional and no governing body exists to protect journalism practices from abuse, or consumers from unethical journalism. In order to ensure continuity among similar journalism practices and to establish fairly uniform ethical guidelines and principles, journalists have had to independently develop an informal social structure which incorporates some of the aspects of a profession.

Journalists who work to produce similar news products share a common methodology for the gathering, production, and dissemination of

news. Of course this methodology encompasses a wide variety of applications, some resulting in more credible or stringent news products than others as well as varying styles. In developing this methodology, these journalists also developed a fairly congruous socialization process within their collective which eventually came to comprise a coherent social structure (Merrill, 1974).

Within this process, journalists are subject to aspects of social control which also serve to maintain the framework of the social structure and to ensure the congruence of journalism practices. The guiding principles or social norms of journalists are affected by "the pressure to conform, to join, to cooperate, and submit to a hierarchical power-structure" (Merrill, 1974, p. 123). This serves to shape the aspirations and intentions of the individual journalist into those that are congruent with already established norms of the collective. Those who deviate from the social structure and from the norms of the collective risk harming aspects which contribute to the informative value of the news product and, consequently, risk loss of peer esteem and one's perceived value within the collective.

In an informal manner, since journalism is not professionalised, the social structure of journalism exists separately from journalists as individuals and yet plays an integral part in determining their behaviour as they aspire to excel. To understand how it influences journalists, it is best to examine the structure at a general level and to move inward to the roles required of journalists within individual news organizations. Within the general framework encompassing all of journalism, the social

structure is supported and maintained by a series of increasingly influential and specific elements oriented to defining and maintaining behavioral requirements. For example, the larger framework encompasses the general norms, or accepted standards of behaviour and behavioral roles of North American journalists, who seek to define themselves as journalists of a certain calibre and who wish to emulate successful aspects of journalistic behaviour to achieve increased exposure, higher salaries, and better assignments.

At the next level, one can see that there are more specific norms, ideologies and behavioral roles which guide journalists in certain news organizations. These organizations are differentiated from each other by the nature of their product, quality mainstream (*The Ottawa Citizen*), tabloid mainstream (*The Ottawa Sun*) or satirical (*Frank* magazine) and journalists must follow more specific guidelines for the collection and dissemination of information to produce the desired end product. Then, within the news organization itself, journalists adhere to an even more rigid social structure as they work to ensure their product reflects the various needs of the department. It should be clear that different norms are followed and imposed within different departments (journalists working in the local news department gather and disseminate a different product than their colleagues in the sports department) even though journalists work for the same news organization. Penultimately, this has tremendous influence on journalists' ability to successfully incorporate new technology into the everyday practices of journalism.

While there are some positive aspects to this structure (continuity of product, ethical guidelines), its rigidity can cause journalists to perpetuate behaviour that is actually detrimental to the production of quality journalism, or at best, is no longer useful. The pyramid-style news form was originally developed to deal with potential problems that might arise when telegraphing news stories to production. It was structured to include all important facts in the beginning, with less important facts at the end. The point was to create a story where the end could be deleted without affecting the crucial facts so if a telegraph transmission was not completed or if layout personnel had to eliminate the bottom paragraphs, the story was still factually accurate (although some would argue much less interesting to read). The pyramid-style news form is not exclusive, and in fact it shares space with another similar style such as the High-Five or 5x5 which is also taught by journalism schools and used in such local newspapers as *The Ottawa Citizen*. The emphasis in this style are the five following elements: news, context, scope, edge, and impact which are to be placed 'high' or at the beginning of the story. These styles are still widely used despite the fact that pagination allows for on-page editing and other studies have shown that readers enjoy reading news in narrative form (Fry, 1993). Claus Mueller (1973) explains that behavioral guides which facilitate the continuation of practices such as these

... are structured by values and collective beliefs transmitted in the socialization process. No matter how refracted and irrational these beliefs and values may be, they influence the political positions an individual may take. (p. 101)

Mueller's description of the workings of collective beliefs and how they are affected by integrated belief systems and values which may or may not be rational is very useful when considering the social structure which affects journalists as they work through a comprehensive change in technology. It is important to note that within the social structure of journalism, the perpetuation of behaviour is no longer dependent upon whether it is a rational process or even if it is beneficial to journalists or journalism. It simply becomes perpetuated by the process. In fact, due to the conservative nature of this operation, it is almost impossible to eliminate behaviours which are detrimental and no longer necessary (Koenninger, 1993).

The motivation of journalists has little influence on this social structure; rather, what is important is the commitment to success within the journalism collective. Merrill (1974) asserts that journalists are committed to action for the public good, but one must also consider that journalists are influenced by the need to sustain economic growth of the news, as well the need to promote oneself within the news organization. Newspapers are a business, and business strategies shape day-to-day operations (Baldasty, 1992); therefore, information that sells justifies and furthers a journalist's role within the hierarchical power structure of a news organization and ensures that it thrives. One example of this effect is pack journalism where journalists often cover issues covered by other news organizations. When a CBC executive informs a freelance reporter that he would rather cover the ravages of war rather than peace negotiations he commits his news organization to conforming to the same topic as other

mainstream journalists who are also focusing on the same issue. This ensures that various topics receive tremendous coverage while others go unnoticed; sharing similar skills, values and goals not only produces a fairly uniform product, but enacts uniformity among its practitioners. Not only does this mean that many journalists often cover the same issues, but when these articles are provided to wire and press services they dictate the topics and issues for a number of news organizations who have little diversity to chose from.

As a result of these many, varied factors which interact in a complex manner, standardized values, qualities and systems of belief have developed. These are perpetuated by journalists who work to be assimilated into journalism culture and to produce news that is considered valuable and worthy by peers and consumers. The common values shared by journalists are determined by what they believe constitutes profitable and successful news. The uniformity of their values, or what is considered newsworthy, can be categorized into a list that is relevant to all mainstream journalists. Michael Stephens (1988) lists seven fairly universal qualities that modern journalists look for in news. They include: "impact, emotional appeal, conflict, timeliness, proximity, prominence, and the unusual" (p. 2). Mainstream journalists share a fairly limited set of common values; therefore, as a collective, they ensure that news will inevitably fit into at least one of these seven categories. This narrows the scope of the news and helps to homogenize journalism practices as most mainstream journalists work to attain at least one of these seven qualities in their news product. In

addition to sharing news values which determines content, journalists also emulate certain formulaic norms in their news presentation including such news writing common forms (Fry, 1993; Tuchman, 1978) as the inverted pyramid (McIntyre, 1991), the *Wall Street Journal* formula, and certain photographic styles. For example, the use of the pyramid-style article in print journalism is no different than the use of a "grip and grin photograph" in photojournalism (this style of photograph portrays a posed person formally presenting an award or similar object) since both portray their information in a formulaic style. In light of this process, when mainstream journalists seek to work outside the limits of traditional boundaries, their attempts are often met with reserve and little exposure. In addition, those who are successful are usually seasoned veterans who are given wide latitude. The use of formulaic presentation strengthens the traditional norms of the collective and increases the rigidity of the social structure. (It should also be considered that what fits into these presentation styles is easier for editors to evaluate). The very act of defining news values and presentation by one of only several formats serves to produce similar news products and again reinforces conformity.

The evaluative aspects of journalism play a crucial role in determining what is portrayed as news and how it is portrayed. In *On Photography*, Susan Sontag (1977) attributes the content and form of the information product to the selection processes used by the photographer or journalist. "In deciding how a picture should look, in preferring one exposure to another, photographers are always imposing standards on

their subjects," writes Sontag (p. 7). Values, qualities, accepted formulaic applications eventually became standardized qualities which are incorporated into collective belief systems to the extent that they come to embody ideals of excellence. Even theoretical news qualities are subject to this process; credo such as credibility, integrity, and factuality are fundamental qualities of mainstream journalism. As ideals of excellence, these standards are assimilated into mainstream journalism practices by journalists trying to rise in the hierarchical structure of their work environment. New newspaper recruits, anxious to learn their roles "did so from revisions and deletions in their copy, from the general style and tone of the paper, from the way their stories were displayed in its pages and from comments made by superiors" (Parsons et al., 1988, p. 93). In this process, journalists learn and apply standards valued by the collective and, once successful and higher in the hierarchy, impose these on newcomers. In the same way that norms encourage traditional behaviour, standards perpetuate evaluative aspects which can either discourage sudden change and innovation and encourage compliance and conformity to that which has traditionally proven to be praiseworthy. This is not to imply that change does not occur or that journalists cannot adapt to changes in technology; rather, the point emphasized here is that this system can perpetuate the use of standards and work strategies. The result is that journalists continue to apply standards and strategies which were developed under a past technology to a new technology even though by doing so they lose aspects of usefulness and beneficiality. This occurs because

standards and work strategies are part of the traditional belief system of journalists which has, by osmosis, been absorbed and emulated by new practitioners.

If one considers that values dictating news content can be divided into seven categories and the presentation of these categories are then moulded into formulaic presentations, both the product as well as the practices of journalism take on a fairly rigid demeanour. The structure defines and maintains behaviour and provides the means to define evaluative components of the news for both consumers and journalists. "Press institutionalization," writes John Calhoun Merrill (1974), "systematizes ever-more-common ways of doing things and develops a certain exclusivity and eliteness about what is right and wrong, good and bad, for the group of journalists" (p. 19).

For example, a photojournalist who works for the sensational tabloid *The National Enquirer* will not be rewarded if he or she persists in taking photographs which are highly credible and factual but boring. Instead, he or she must use every creative technique available to produce photographs of deformed babies and children, aliens, and other sensational images that help sell this entertainment-oriented publication. In contrast, photojournalists who work for *The Globe and Mail* and the *New York Times* must strive to attain the highest standards of journalism excellence in the dissemination of information. News photographs and articles produced for these papers are fairly factual and representative of the real event. When photographic manipulations are published, they are never

presented to the readers as real. This ensures that published news photographs aspire to be credible and may be believed (at least to a certain extent) by readers who buy this product for its factual information. If a photographer for this type of newspaper is caught using practices encouraged at *The National Enquirer*, the punishment is often termination (Lester, 1991, p. 118).

What is important here, is that journalism standards and norms are not universal among all journalists, but they are essentially similar within certain news organizations which seek to gain a certain tone and reputation and then guarantee these for the consumer. Within the news organization itself there are variations of the standards imposed upon journalists depending upon which position the individual holds, but these are still subject to the social structure of mainstream journalism. Since journalists work within a hierarchical structure, the editors, publishers and owners who are at the top of the authoritatively managed hierarchy set the tone and the ideals of the paper. From a Marxist perspective, the thoughts, beliefs and ideological predispositions of journalists are not independent of the individual's position in the production process of the network or publication (Mueller, 1973, p. 102). Rather, the dominant ideology reflects the interests of the ruling class; in journalism, it is the publishers and media network owners who are ultimately committed to economic growth and who determine the values of the hierarchy for that news organization. Once the nature of the news product is set, journalists then work to achieve it within the social structure of journalism. The

newly hired journalists and those with lesser power emulate those who are in power and who have control over others. A journalist may be personally motivated to pursue public good at the expense of economic growth, but he is still restrained by traditional standards and norms of mainstream journalism.

When one realizes that the new technology is controlled and administered by journalists already in power who follow traditional ethical principles developed under chemical technology, it becomes apparent that what is being taught are traditional ethical principles which were already in place before digital technology was implemented into the news organization. The practical aspects of digital technology have been easily implemented, but ethical principles have not adjusted to the repercussions which stem from digital technology and it appears the socialization process provides no impetus for the appropriate change to occur from within. Historically, it is apparent that the change in ethical principles must be homogenous and uniformly adopted by all quality news organizations to protect the credibility of photographs in the view of the public. What is necessary in light of the drastic technological change is an accompanying drastic change in ethical principles and guidelines.

The above description of the coherent structure dictating journalism practices outlines the framework of a fairly homogeneous process that has developed over many years. It is useful to understand the process guiding journalistic practices and how it determines the content and format of the news if one is to analyze the approach taken by journalists, and especially

photojournalists, to digitization of their medium. By approaching the effects of digitization in this way, this examination serves to emphasize the heroic valour and dedication of early photographers and photojournalists who worked to develop their practice as a medium of journalism. It also makes apparent the absolute success these photojournalists enjoyed in adapting their work strategies and ethical standards to changes in chemical technology. At the same time, it emphasizes the tragedy of their inability to adapt these to changes effected by digitization which is dealt with in chapter three.

At a glance, it appears that from its inception, photojournalism's influence and popularity grew steadily, only to endure a recent decline. During its heyday, it seemed inconceivable that photojournalism's influence could ever decline. Public demand peaked during the mid 1900s when documentary photography enjoyed tremendous influence. Many publications such as *Life* and *Look* capitalized on the popularity of this news venue which in turn emphasized its influence, but those publications that still exist today have lost their reputation for producing hard news and, consequently, their role as visual informants. John Tagg (1988) argues that this decline occurred because North American society lost interest due to changes in socio-cultural perspectives. This argument provides insight into the complex issues affecting socio-cultural influences of photography; it focuses on the tendency of 18th-century North Americans to depend upon visual classification to justify psycho-social and sociological assessments. In many ways, this tendency created great demand for photographs as well

as many new utilities requiring the documentation of certain images. As outlined in the introduction, however, this thesis avoids focusing on the rise and fall of photojournalism from a social-cultural perspective and focuses instead on the struggle by photographers and photojournalists to bring photography into journalism as a valued and unique news medium.

The Parameters of Chemical Photography: 1727-1880

The parameters of chemical photography will be traced through to 1880 because it was a year encompassing several innovations crucial to the development of photojournalism. Many researchers focus on developments in photojournalism after the invention of the halftone process, since this process enabled newspapers to reproduce photographs on a large scale. There are, however, several issues which must also be considered when tracing the development of photojournalism. First, it is important to note that throughout the early decades, from the introduction of the daguerreotype in 1839 through the constant refinements and revisions of the chemical developing process to the introduction of the hand-held camera by George Eastman, founder of Kodak (1880), the basic principles of the chemical process remained unchanged. This factor is extremely significant since it constitutes the absolute difference between chemical and digital photography and is the basis for why photojournalists must devise new work strategies and a new decision process.

Chemical photography required an image before the camera to create a photograph. The image could be manipulated in many ways; however, a

photographic image could not be created without an original image to create an exposure, at least not without detection. The limitation of this factor served as the foundation for the work strategies of photojournalists and set the parameters for the decision process regarding manipulative techniques.

The second issue which was pertinent to this early period in photographic history revolves around the public's attitude toward certain styles of photography. The public was predisposed to an attitude of faithful acceptance of the relationship between signifier (image in reality) and signified (photographic image) (Lowe, 1982), which was also relevant in perceptions of chemical photography. This attitude incorporated a belief in the validity and credibility of photographs; it was influenced by the nature of photography and its technological innovations and was nourished by the principles and practices of certain photographers.

To understand how photojournalism developed into a powerful news medium, it is necessary to understand the technological development of photography and its impact upon the strategies, principles, and techniques implemented by photographers. Photography and its capacity to recreate realistic visual images was dominated by constantly changing technological development from its inception to 1880. The first description of a camera-like mechanism dates back as far back as ancient China. It regained popularity during the renaissance, and the principle of photography was succinctly described by Leonardo da Vinci: "Light entering a minute hole in the wall of a darkened room forms on the opposite

wall an inverted image of whatever lies outside" (Newhall, 1964, p. 1).

It was not until the mid 1700s, however, that the invention of the camera and the process to develop photographs started on their whirlwind course. In 1727, Johann Heinrich Schulze established the light sensitivity of a mixture of chalk, silver and nitric acid applied to glass, but it was not until 99 years later, in 1826, that Joseph Niecephore Niepce created and fixed a permanent image using a camera.

The first photograph on record, which required an exposure time of eight hours, is a pewter plate identified as "View from his Window at Gras," taken by Niepce in 1826 (Newhall, 1964). Reproductions of the original image show a grainy, but clearly discernable, image of sloping rooftops and rectangular chimneys. The detail is rough and the colour gradations of grey are indistinct; however, this image was the harbinger of a great and influential invention.

Niepce entered into partnership with another inventor, Louis Jacques Mande Daguerre, who was also interested in and concurrently investigating the possibility of permanently fixing images created by a photographic process. Daguerre and Niepce remained in partnership for ten years, but Daguerre eventually became the more influential partner by inventing the immediately successful daguerreotype which he revealed to the public in 1839. Daguerre used his invention to achieve financial stability and personal acclaim by selling his rights to the government of France in return for a life-long pension. Niepce's work and reputation faded, however, with the exception of his claim to having obtained the first

fixed image.

The daguerreotype is essentially an image fixed on glass which is both positive and negative at the same time. The image is quite small, fragile and at first required a fairly long exposure time. It is so exacting in detail that an early daguerreotype of a stream still portrays small stones lying underwater along its edge, as well as varying degrees of water transparency (Newhall, 1964). In *Photography and the American Scene: A Social History 1839-1889*, Robert Taft (1938) wrote:

A well made daguerreotype is a thing of real beauty, and in some respects is not surpassed by the products of any modern process, for a good daguerreotype possesses brilliance and shows detail far better than any paper print. (p. 7)

When Lewis Gaylord Clark, editor of *The Knickerbocker*, a New York magazine, saw a daguerreotype for the first time, he rhapsodized:

Their exquisite perfection almost transcends the bounds of sober belief. Let us endeavour to convey to the reader an impression of their character. Let him suppose himself standing in the middle of Broadway, with a looking glass held perpendicularly in his hand, in which is reflected the street, with all that therein is, for two or three miles, taking in the haziest distance... There is not an object even the most minute, embraced in that wide scope, which was not in the original; and it is impossible that one should have been omitted. Think of that! (Taft, 1964, p.3)

Clark's response was indicative of public reaction when it saw the perfection of details and images captured by daguerreotypes. As soon as Daguerre revealed the process, amateur would-be photographers rushed to build suitable apparatus so they, too, could capture their own images of nature. News of the process spread quickly through Europe, and soon daguerreotypes of landscapes documenting the streets and architectures of

the early 1800s were circulating among the public. Daguerre documented and perfected a chemical process which many emulated and endeavoured to further perfect. Until the last few decades, the basic applications of his invention remained the same.

While this early process was remarkable for its ingenuity, however, it had its shortcomings. Daguerreotypic images were "fixed" on silver plate, making it an expensive process which could not be duplicated or reproduced. In addition, the long exposure time caused all moving objects to disappear, leaving viewers with the impression that all streets were deserted. There is a person in only one of Daguerre's pictures: a man who stopped long enough while having his shoes shined to be the first person ever captured in a photograph. The public was dissatisfied with the limitations imposed by the nature of daguerreotypes and demand for images of people inspired photographers and inventors to work to revise and invent new technology to make it possible.

John Tagg (1988) attributes public demand as being the impetus behind constant technological developments in photography:

The history of photography is, above all, the history of an industry catering to such a demand: a history of needs alternatively manufactured and satisfied by an unlimited flow of commodities; a model of capitalist growth in the nineteenth century. As rapidly as the market grew, so new forms and techniques were developed to supply it, transforming the craft production of portraits as more and more mechanical means of image-making removed the need for either training or skill. (p. 37)

As developing time was shortened by those who invented different developing processes, it soon became possible to make portraits, although

they often contained images of formal, stiffly posed subjects. The inconveniences of the daguerreotype, however, were balanced by its exquisite detail and it reigned as the most popular method of photography from approximately 1839 to 1855. Other photographic methods existed, such as that invented by Louis Desire Blanquart in 1850. Blanquart used albumen paper which was made light-sensitive by coating it with egg white. The egg white contained dissolved potassium iodide and potassium bromide. This application turned images a pleasing brown, but was lacking in detail compared to daguerreotypes and was never as popular.

Many photographers turned to alternative materials on which to fix images, especially cheaper materials such as tin, copper and, eventually, paper. Paper photographs soon became the most popular; the relative inexpensiveness of this material compared to others fairly guaranteed its success. The price of these constant revisions to the chemical developing processes, however, was that the detail of the daguerreotype was lost forever; sacrificed for faster, inexpensive processes. This is clearly indicative that cost efficiency was selected over quality which in turn affected the development of the product with which we are familiar today.

The paper process was perfected by Henry Fox Talbot in 1839 who called the paper images Talbotypes. This new process meant that photographs were now able to be duplicated into a number of copies. But the developing speed of the Talbotype was still fairly slow and did not allow photographers to capture action. One of the first major breakthroughs in this area was made by Sir John Herschel, who invented a new chemical

developing process, also in 1839. Herschel, who invented and applied the terms positive and negative to describe various aspects of his new process, invented hyposulphite, a developing chemical, which became known as hypo. This chemical is very effective at arresting the action of light on light-sensitive paper and is still used in chemical darkrooms today.

In 1842, three years after these processes were perfected, the first news event was captured on daguerreotype. Herman Biow took 46 daguerreotypes of a fire in Hamburg, Germany, which were reproduced as wood cuts and published by Herbert Ingram in the first *Illustrated London News* on steam presses. The cutline, "copied from a photograph," was used by newspapers to lend credibility to the illustrations, supposedly making them more factual than those illustrations made by artist only.¹ The technology to publish photographs was complex and expensive, and it was not until ten years later that photographs were published in an illustrated book. Photographs were not published in newspapers until 1880.

The first illustrated book was a journal, *Egypte, Nubie Palestine et Syrie*, which met with wide acclaim when published in 1852. It contained 125 prints, published as plates, taken by Maxime Du Camp, a writer who produced daguerreotypes to accompany his articles. Later the same year, the first major news event, the funeral of the Duke of Wellington, was covered by photographers who wielded large wet developing plates and heavy cameras on tripods. These photographs were also reproduced by

¹. It is interesting to note that, generally, news organizations today use cutlines to lend credibility to photo manipulations.

newspapers as wood cuts and sketches with cutlines attributing them to original photographs.

In a relatively short time, photographs became popular items for collection, display and information. Wet plate photographs of famous people were mass produced in the shape of postcards or cartes-des-visites, a form that was patented by Adolphe-Eugene Disderi in 1854. Sarah Bernhardt (1859) and Queen Victoria (1861) are just two of many famous people who consented to having their portraits made into cartes-des-visites which were then sold to the public. In fact, these collectibles were so popular that 1,000 prints a day were sold of Major Robert Anderson, popular hero of Fort Sumter (Newhall, 1964).

In 1855, Roger Fenton, the first war photographer, produced and sold photographs of the Crimean War that portrayed basically two types of scenes: soldiers and officers clustered in small groups and pictures of deserted battlegrounds. Fenton was criticized for providing what consumers believed to be an antiseptic and false portrayal of the war. His system of newsgathering was hindered in two respects: his choice of content and the restraints of technology.

The first criticism was fair since Fenton wrote that he saw horrific scenes of war and yet did not photograph them even though the technology he was using would have enabled him to do so. In a description of a journey to the Valley of Death he wrote:

We came upon many skeletons unburied. One was lying as if he had raised himself upon his elbows, the bare skull sticking up with still enough flesh left in the muscles to prevent it from

falling from the shoulders. (Macdonald, 1980, p. 81)

In an analysis of Fenton's work, Gus Macdonald (1980) was critical: "There are no such scenes in Fenton's portfolio of 300 glass plate negatives: his dead are buried in neat Christian graves" (p. 81). That photographs of this nature were not exhibited was a disappointment to the viewing public since it was possible to reproduce this type of image and they expected to see it. The second, less valid criticism, however, criticizes Fenton for failing to provide images that he did not have the technology to capture. Fenton's photographs lacked any action or movement and his subjects were formally posed. He was severely limited by chemical technology since he was working with the wet plate collodion process, a very cumbersome and difficult developing method, which prevented him from photographing moving images. But even though it knew the limitations of technology, the public demanded photographs of war that were closer to reality; they wanted movement, action and people portrayed as they were on the battlefields. While this was technologically impossible and, interestingly enough, no one had seen photographs like this before (Newhall, 1964, p. 67), the criticism was strong enough to provoke photographers to work to attain this type of imagery. Rather than forcing people to lower their expectations for the visual documentation of movement, photographers and inventors worked to produce a chemical process that would provide it.

Five years later, photographers captured images of the American Civil War from 1861 to 1865 and with the advances in technology and in

light of public response to Fenton's work, they worked to capture more realistic images of war conditions. Photographers such as Mathew Brady, Alexander Gardner and Timothy H. O'Sullivan produced the first fairly accurate representations of war. While the technology still made action photographs difficult, these photographers, however, made every effort to compensate for the limitations of technology. They compensated for the difficulties in photographing action by using static images to imply action. In other words, they used images of dead soldiers on the battleground to portray the scope of the battle and the horrors of war. Similarly, punishment for war crimes was portrayed in images of bodies swinging at the end of ropes, surrounded by a military audience. The photographs were so popular that almost every aspect of the Civil war was photographed -- from prisoners of Andersonville to hangings of traitors. By 1870, the year of the Franco-Prussian war, competition was so stiff among photographers to get their photographs to their newspapers first, they used carrier pigeons to fly undeveloped film back for production (Baynes, 1971). At this time, photographers were still using the large tripod-mounted cameras and difficult developing processes.

It is important to remember that up until 1880, photographs could not be mass reproduced in newspapers. They could be reproduced individually at great expense and were published only as individual plates (Baynes, 1971). As a result, the capacity to disseminate individual photographs on a large scale was limited. This limitation, however, appeared to have little effect on the influential nature of photographs. Photographers such as T.

H. O'Sullivan (1867) explored the western United States and through his photographs exposed views of the country which the general public had never seen before. O'Sullivan travelled with Clarence King's Geological Exploration of the Fortieth Parallel in 1867, and his photographs of the Colorado River and the Grand Canyon expanded the spatial horizons of the viewing public. People started to take an interest in sights seen only through pictures, and avidly followed reports on geographical exploration within America. Photographs from these expeditions reveal the wonders of the American west, such as the Old Faithful geyser and the grandeur of the Grand Canyon before they became well-travelled landmarks. They fuelled public interest to the point that they have been directly attributed with supporting the establishment of these areas as national parks.

Many people also used these pictures to identify new places to emigrate to and settle; instead of dry, typographically descriptive accounts of unpopulated sites, the pictures represented a visual slice of a world that appeared both wonderful and accessible. That the public implicitly believed in the reality of these images is strengthened when one realized that many viewers used these images as information to guide their routes of emigration. Of course, it would be naive to ignore the fact that many emigrants were persuaded by misrepresented images (attributed to one place, but representative of another). However, the crucial point is the faith that was invested in the validity of the photographs.

These photographs not only documented landscapes, but some photographers also generated images of people that now qualify as

anthropological and sociological records. Some photographers concentrated on photographing aboriginal tribes such as the Hopi and the Zuni, whose way of life was quickly disappearing. Photographs such as these became invaluable as a record of people and their cultures, and were later used in both anthropological and sociological studies (Becker, 1974). In "Mirror Image: The Influence of the Daguerreotype on American Society," (1971), an essay published in *Photography in Print* (1988), Richard Rudisil summarizes three major influences of photography on society during this period: 1) it served as a direct aid to cultural nationalism; 2) it helped Americans adjust from an agrarian to technological society; and 3) it was a reflection of spiritual concerns motivating the nation. Without a doubt, photography influenced North American culture even before photographs could be published in daily newspapers.

While the technological development until this time directly influenced the content of photographs, it was not until 1880 that innovation enabled the production of timely, efficient and clear photographs which could be mass reproduced on a daily basis. These early aspects of technological development were influential in shaping the product of photojournalism; various inventions in 1880 made a significant difference to photography since they laid the groundwork for a style of photography which would be incorporated into photojournalism in the following decades. See appendix one for a time line and brief chronological history of photojournalism. In 1880, the hand-held camera was introduced by George Eastman, founder of Kodak; Charles Harper Bennet perfected the use of

negatives at snapshot speeds using gelatin-coated paper; and Stephen Horgan perfected the halftone printing process so that newspapers could accurately reproduce photographs on a timely basis.

Credibility: Establishing the Parameters

But the credibility of photographs quickly became an issue. The resemblance of daguerreotypes to images of nature was overwhelming for those who saw them for the first time. In a world oriented to classification, where the only visual documentation stemmed from paintings and portraiture, the daguerreotype appeared faultless in its ability to act as a "pencil of nature." Daguerre (1938) himself described his invention as a "chemical and physical process which gives Nature the ability to reproduce herself" (Newhall, 1964, p. 17). The astonishing detail in daguerreotypes laid the groundwork for what would eventually become an inherent credibility assigned to certain styles of photographs. But while some saw photography as an instrument which could accurately reproduce natural images, others saw it as a flawed and inaccurate tool.

These differing opinions took root to form opposing sides in a formal debate over the proper realm for photography: art or science. This debate is extremely influential in a discussion of the development of photojournalism in that if photography had become solely an element of either, it would never have enjoyed the social and cultural influences to the extent that it has (Tagg, 1989). In his book, *The Burden of Representation: Essays on Photographies and Histories* (1989), John Tagg describes the two conflicting

attitudes within the debate over the classification of photography as an ideological contradiction. Tagg writes that photography functions in certain contexts as a kind of proof:

... even while an ideological contradiction was negotiated so that a burgeoning photographic industry could be divided between the domain of artistic property, whose privilege, resting on copyright protection, was a function of its lack of power, and the scientifico-technical domain, whose power was a function of its renunciation of privilege. (p. 63)

Tagg's quote is useful in that it basically summarizes the two opposing sides which place photography within opposing realms. Those who support photography as art which "rests on copyright protection" focus on the subjective interference, or in this case, artistic licence of the photographer who uses the camera and developing process to interpret the image before the lens. They argue that photographs qualify for copyright protection and, as such, are the equivalent to a work of art rather than an exact reproduction of an image found in nature. In this sense, the taking of a photograph is equal to creating a painting: the photographer is an artist; the camera and lenses are the oils and the brushes; the photographic paper is the canvas.

Within the art realm, photographic images exerted substantial influence, in some cases as competition and in other as a replacement (Galassi, 1981). The competitive aspect occurred in a struggle between photography and realism. An artist could spend days painting miniature portraits and exacting landscapes, now daguerreotypes could reproduce an image in hours and the likeness was exact. For example, if one sat before

the camera with grey hair, that was the likeness reproduced by the camera (sometimes to the chagrin of the sitter). In the sense of replacing art, photographs came to be preferred over Landscape paintings since they replicated minute details with less trouble and in proper perspective. It was not possible for painting to compete in this genre with a machine whose preferred utility was image reproduction (Weaver, 1989). But while critics were quick to acknowledge photography's influence on the art world, there were many who refused to classify photographs as art.

Charles Baudelaire (1859) emphatically believed that photography could never be considered art. He wrote: "A medium that allowed the artist no right to compose -- to meddle in the internal affairs of the picture -- could never be a vehicle of the imagination" (Galassi, 1981, p. 28). For Baudelaire and many others, the lack of subjective interpretation was an insurmountable obstacle leaving insufficient ability for a photographer to express artistic interpretation. The camera was restricted to capturing images before the lens; therefore, critics argued, the photographer had little scope to manipulate and influence the final product.

The argument regarding the lack of subjective interpretation allowed to the photographer was used by some critics as the basis for their argument that photography belonged in the scientifico-technical domain (Tagg, 1989). In some conditions, photographers claimed that the camera could be used as a visual recording tool and the results of these efforts were often well received by the public. In 1878, Eadweard Muybridge used a series of photographs to win a bet; he proved conclusively that galloping

horses do, at one point, have all four hooves off the ground. Cameras were placed around a race track with fine threads connected to the shutter. As the horse broke the threads, each tripped the camera's shutter and produced a picture of a horse in mid-gallop. While simple by today's standards, this process was complex for its time and took Muybridge 10 years to perfect. He was hampered by lens clarity, camera mechanisms and the high speed exposure needed to obtain a clear picture. Once perfected, Muybridge used the technique to demonstrate many aspects of animal and human locomotion which were indiscernible to the human eye.

As a scientifico-technical tool, photography was touted as an objective instrument of science for furthering knowledge by observation and experiment. To qualify as a chronicler of scientific observation, however, a photographer must add nothing to the photograph which would contaminate the original data or image being recorded. This stipulation led many scientists to reject photography's claim to objective visual documentation. They argued that photography allowed significant subjective interference by the photographer (i.e. size, colour, dimensions, temporality), which precluded it from qualifying as a pure instrument of science.

Both sides of the debate have been detailed to draw attention to the inherent contradiction in the two approaches to photography: it is rejected as an art form because there was little room for intervention in the subject matter by the photographer; yet, it is rejected as a scientific tool precisely

because there was room for subjective manipulation. Artists did not think intervention was possible, but it was; it was a matter of degree.

For many critics, not only did the subjective interpretation of the photographer affect a possible contamination of data, but the distortion of perception inherent within all photographs also precluded its use as an objective instrument of science. This view was based on the characteristic that a photograph is never the exact replica of the image seen in a viewfinder. The distortion is succinctly summarized by Galassi (1981):

Photography recorded not the physical reality before the lens but its visible aspect, determined by a specific point and scope of view, at a particular moment, in a particular light. The description was seamless but only in two dimensions. The photographer ignored this fact at his peril, risking obstructions and discontinuities, fortuitous juxtaposition, and unexpected densities and gaps in spacial logic. (p. 29)

Minor White (1958) aptly summarizes the adjustment required by viewers to compensate for this distortion:

We... rarely realize just how extensive our mental adjustment is every time we look at a photograph. We permit two dimensions to stand for three, picture size to stand for life size, an isolated moment for a living one, and shades of grey for colour. (Goldberg, 1981, p. 76)

The debate over the classification of photography was never resolved, and photography continued to exert an influence in both realms. In art, the subjective interference of the photographer was most welcome to some, and yet not substantial enough for others. In science, however, the subjective interference, however small, was considered by some to be too substantial to allow photography to qualify as an instrument of science.

The result of this debate is more complex and more interesting than would have occurred if either side had won conclusively. During the debate, photographers and, later, photojournalists were forced to examine the distortive traits of photography and to formulate principles, practices, and standards to define the nature of certain photographs. These then worked to assure the consumer that certain styles of photographs met certain qualifications. Basically, photographers set out to separate fiction from nonfiction, just as a news story differs from a fictional short story, and they developed a methodology to do so.

For example, if photographs were to qualify as fiction, with emphasis on their status as an art form, they had to meet certain aesthetic qualifications which ensured that the photographer's creative ability was evident. Work by photographers such as Moholy-Nagy or Robert Mapplethorpe qualify in this respect. As in a short story, the artist could create scenes, characters, images, and concepts using every means available. For those who wished to ensure that photographs were valued for their credibility, authenticity, and reproduction of reality, the photographers worked to elide any contamination of content by overt interpretation or manipulation. It was their intention to develop a set of limits to define the realism within this style of photography. John Tagg (1989) defines these limits as a "fixity in which the signifier is treated as if it were identical with the pre-existent signified" (p. 99). The photographer and viewer then overlook any distortion which cannot be controlled by the photographer, and focus instead on the active avoidance of that which can.

To obtain this quality, photographers devised a doctrine stipulating that they use only their talent for wielding a camera which forbids the deliberate manipulation of the original image. In this way, they used technical and personal resources to recreate the image as it occurred in reality, paralleling the work of print journalists whose work is based on research and facts. By attributing a value to realism and formulating a doctrine and methodology to achieve it, these photographers facilitated the first major aspect of the social structure of photojournalism. They created a credible photographic style which, after some modification and minor adjustments, enabled photography to become a valued news medium.

Early photographers such as Peter Henry Emerson and Alfred Stieglitz were among those who recognized the potential for subjective interpretation to interfere with the ability of a camera to accurately reproduce pristine images. Emerson (1889) tackled this dilemma first, arguing that photographers should use their own subjective interpretation and techniques to render a true impression of the scene before the lens (Vicki Goldberg, 1988). In a doctrine based on scientific principles, he wrote that conscientious photographers must overcome the distortions of perception that occur by using their own subjective interpretation of the image before the camera as a control.

For example, if an eye cannot discern certain details then they should not be present in the photograph. Emerson believed this was an aspect within the photographer's responsibility; he wanted photographers to produce photographs which emulate human perception. He used

human perception and the ability of the human eye as the standard for this type of photography and he argued that photographs should not attempt to be clearer than the eye can perceive. If the human eye could not perceive the details that could be captured in a photograph, then the photograph should not allow them to be captured. Reality, therefore, in an image, should be reality as measured and formulated by human perception.

Many photographers misunderstood Emerson's reasoning and used out-of-focus techniques to approximate his standard of human perception. However, the benefit of Emerson's ideas and his call to make photographs as true and accurate to psychological reality, even if defined by human standards, was that it elevated photography to a plateau where realism was openly sought and applauded. The number of fuzzy pictures produced around this time illustrates the number of photographers interested in the portrayal of psychological reality using only one's ability to wield the camera.

In addition, Emerson stipulated that the photographer should only attempt to emulate objective realism using the camera and the photographer's own ability and technological expertise. He despised trickery, fakes, or composite images of the type also being produced around this time by photographers such as Henry Peach Robinson. In fact, he wrote several tirades against this type of fabricated photography. In contrast, Robinson (1869), who created montages of photographs, believed: "A great deal can be done and very beautiful pictures made, by a mixture of the real and artificial in a picture" (Newhall, 1964, p. 60). But Emerson's

views, although misinterpreted, were influential enough that photographers moved away from montages and other types of manipulated photographs, and raised interest in a style of photography praised for its purity. Those who followed the style advocated by Robinson found that public demand was more in tune with accurate images rather than fabricated montages (Goldberg, 1988).

Alfred Stieglitz, who worked in the late 1800s also strove to emulate realism, and under his influence, photography embraced realism to the point that it became a discipline that garnered indisputable credibility among its North American audience. Stieglitz was a great photographer who mastered the style of portraying scenes of life in an aesthetically acclaimed manner. His pure and unposed scenes of life were so true in every sense that they were acclaimed as art, and Stieglitz won over 150 medals for his photography. "The search for truth is my obsession," he wrote, and he worked for the recognition of his style of photography as an independent art (Newhall, 1964, p. 60). He believed that a photograph could hang alone on a wall and this quality was the critical mark of the true photographic picture (Trachtenberg, 1977).

Stieglitz's work lent credence to the belief that pictures portraying the reality of humanity were not only valuable for their accuracy, but could also be considered art for their aesthetic qualities. In this way, Stieglitz integrated the two aspects of the debate over the classification of photography. He worked to make his photographs works of art, yet his doctrine was so strict in its emulation of technical purity that his

photographs also qualify as sociological and anthropological perspectives. With regard to his photographs of life scenes, the Society of Amateur Photographers (1896) remarked:

Mr. Stieglitz' pictures are examples of pure photographic processes -- no retouching or hand drawing have been done on any of the negatives, even in the case of the large portrait heads -- and wherever any softening of the detail or forms of the figures has been necessary, it has been obtained by the simple and legitimate expedient of additional exposure. (Newhall, 1964, p. 103)

This view summarized the quality, standards and ideals for photographs which were aesthetically composed but credible in content. They replicated the image before the camera as accurately and as aesthetically as possible using only the technology of the camera and the talent of the photographer. For one photograph of horse-drawn streetcars in a snowstorm (1893), Stieglitz waited hours for the conditions and scene to be "right" (Newhall, 1964). He waited, hour after hour, for the composition, content and lighting to be appropriate for the photograph. There is little doubt that this attention to detail in such a purist style created photographs of the highest quality. Stieglitz's dedication to obtaining the best, most aesthetically pleasing and unmanipulated photograph laid the basis for a strict doctrine which demanded that the photographer take pride in his or her ability to capture an image based only on talent and technical knowledge.

In this regard, James Thurber (1934), photographer and critic, wrote: "Proponents of straight photography decided that photographs were art only if they were pure: no laying on of hands, no tinkering" (Goldberg,

1988). In a surprising twist then, photographs suitable for use as news photographs developed out of a doctrine of art, not because photographs eventually became indisputable instruments of science. Apparently, it was sufficient that the inherent subjectivity and perceptual distortion of photography was recognised, and then strictly controlled. The photographs that were produced in this manner as true reproductions, with the only subjective interference being the photographer's ability to wield technical expertise, were widely accepted by the public as authentic and credible.

The impetus of such influential photographers as Emerson and Stieglitz, as well as Alfred Eisenstaedt, led to the creation of a system of beliefs which gave credence to true-to-life photographs. This system of beliefs was fostered by these photographers (and others who were influenced by their work), and was endorsed by a public hungry for visuals. True-to-life photographs, which later developed into what is known as documentary photography, were extremely popular and captured scenes, emotions, and people that would otherwise have gone unnoticed and unrecorded. The quest for visual knowledge and documentation was so great that in 1889 the British Journal of Photography asked photographers to contribute photographs to enable it to create a visual document of the world (Newhall, 1964). The art world had established the principles of documentary photography and, once photographs absorbed the merits of objectivity which accompanied the use of photography as a tool of social science, there appeared to be little doubt in the public mind that photography of this nature was a faithful observer, recorder and reporter of

life's images.

The Reign of Photojournalism: 1880-1944

The second period, 1880 to the end of the Second World War, encompasses the successful integration of both technological innovation in photography and the theoretical framework of photojournalism inspired by Emerson, Stieglitz and Eisenstaedt. It was during these years that photojournalism made its mark in the daily newspaper, effecting social change, and visually educating a public yearning to be entranced with stark images of life which it would never otherwise see. The credibility of photojournalism reached its highest peak, which can be attributed to the successful implementation of a rigid doctrine of practice, the nature of utilization of images created according to this doctrine, and the fact that technology and utility were closely matched.

Prior to 1880, in order to be displayed in a newspaper or magazine, a photograph had to be copied into a graphic, losing the very aura of spontaneity and credibility which photographs had gained through the acceptance and control of photography's limitations. In addition, the amount of time it took to get the pictures to the public meant that days or weeks passed before events were publicized. Public demand for timely accurate images of news events was strong, but the requisite technology did not exist. The technology which enabled photographs to be reproduced in daily newspapers, the halftone process, finally made it possible for photographs to become a part of daily news almost 100 years after the first

photographic image was fixed. The halftone process was perfected by Stephen Horgan in 1880, and on March 4, the first news photograph, "Shantytown," was published by the *Daily Graphic* in New York (Baynes, 1971). The process involves rephotographing the photograph through a grid which breaks the continuous tones of the picture into dots. The grid is then transferred chemically onto a printing plate. The chemicals etch a pattern that conforms to the dot scheme; darker shades have larger dots which transfer more of the dark ink, while lighter shades have smaller dots which transfer less ink. The final result approximates the shading in the original photograph. This process is credited with moving photographs from the realm of photography into the realm of journalism (Baynes, 1971).

It is difficult to believe that many newspapers were reluctant at first to embrace this technology, continuing to use wood cuts and sketches to illustrate their stories. Based on the previous discussion of the operations of journalistic practices, however, it is not surprising that the organization of newspapers interfered with the quick implementation of the new imagery. This reluctance can be attributed to ignorance of the new technology and the potential for photographs to educate and entertain readers and, most important, to sell papers. Additionally, the structure and organization of newspapers meant that large art departments existed which had to be shut down or converted to photography (Coleman, 1944).

For decades before 1880, artists supplied all visual imagery for newspapers (Stephens, 1988). When photographs first made their debut, newspaper artwork was not immediately threatened with replacement

since it was necessary for photographs to be artistically recreated for newspapers. At first, wood engravers and sketch artists simply copied photographs into a format suitable for mass production and implementation into the layout of the magazines and newspapers (Baynes, 1971). Evidence of the newspaper's growing recognition of public attitude toward photographic credibility, however, is the indication that even though the final published product was an artist's rendition, the value of being associated with the best photographs was enough to instill fierce competition among newspapers to gain access to original photographs so the cutline "copied from a photograph" could be included with the sketch.

It was a symbiotic relationship: the public wanted to see illustrations of the news and publishers found that illustrated news stories sold better. Early art departments were precursors to what would later become photography departments. Harry Coleman (1944), an illustrator for the *Journal*, a Hearst publication, started his career as an illustrator in the late 1800s. As the technology became available, Coleman became a photographer, but he was the only illustrator in his department of 15 who made a concerted effort to do so. In a narrative filled with titillating insight into journalism practices in 1900, Coleman (1943) wrote:

I scampered with my pad and pencil to wherever a story might be breaking, made copious sketches and sent them back to the office by reporter or messenger. These sketches were turned over to an experienced portrait artist and recopied on a larger scale into wash drawings. They emerged as chromos in water colour, worked with considerable care and cleverness in a sepia tone, and then airbrushed to make them *appear as much like photographs as possible*. [emphasis added] (p. 32)

In a later paragraph, Coleman clarifies why the sketches were finished to resemble photographs.

The hurried sketches, usually left profiles, bore little similarity to any person living or dead. Interpretations made by finishing artists were pure fabrications, in which any accurate characteristics were lost entirely. (p. 32)

During this time, when two forms of illustration were available to accompany news stories, (one that offered the appearance of reality and one that bore little visual resemblance to it), it is not difficult to understand why the public was emphatically more receptive to photographs than sketches, even though many newspapers were slow to convert, and for some years published both images. For almost a decade, newspapers were slow to react to public demand.

In *The History of Photography* (1964), Beaumont Newhall compares public reaction to two similar images published simultaneously by different publications; one image was published as a sketch in a daily newspaper and the other as a plate in a book. The photograph was taken by Alexander Gardner, a renowned Civil war photographer, and contains the image of a dead sharpshooter. The sketch is of a sharpshooter in a tree, drawn by artist Winslow Homer. Newhall writes that the photograph was automatically given more credibility by the viewing public, based on the belief that the photograph accurately portrayed reality.

There lies the great psychological difference between photography and the other graphic arts; this is the quality which photography can import more strongly than any other picture making. The camera records what is focused on the ground glass. If we had been there, we would have seen it so. We have been shown again that this is pure illusion. Subjects

can be misrepresented, distorted, faked. We now know it and even delight in it occasionally, but the knowledge cannot shake our implicit faith in the truth of a photographic record. (p. 71)

By the early 1900s, photographs replaced sketches in newspapers and started to lend validity to news articles. The first picture newspaper in Britain, the *Daily Mirror*, began publishing on January 4, 1904 (Newhall, 1964). This newspaper was not only among the first to capitalize on a growing appetite for newspapers illustrated with photographs, but three years later, an employee of the paper, Harry Bartholomew, devised a system to transmit pictures by telegraph. Bartholomew invented the Bart-Lane system which enabled the wiring of pictures across the Atlantic, finally supplying the last link in a system which could provide the public with photographs that were timely, interesting, geographically diverse, and which could be mass reproduced. By 1907, all technical aspects required for photojournalism were now in place.

Even though the basic technology had been acquired by 1880, the ideology and purpose of photojournalism were still undeveloped. Photography at this time was more influenced by attempts to accurately capture images before the camera's lens, rather than a desire to report using visual images or to provide documentation of anthropological or sociological field work. Photographs were included with stories as illustrations to lend credibility, not as photographic reports. "In fact," writes Ken Baynes (1971), "the first uses of photography in the new large circulation newspapers was lacking in confidence and experience, consisting of stiff formal portraits. The essence [of photoreporting] lay not

in using a picture as an illustration but as part of the story" (p. 47).

It is important to distinguish between the utilization of photographic illustrations in newspapers, and the employment of photographs as an integral element in the design of a newspaper page. The first is much simpler for it only requires someone, either a photographer or reporter, to capture various images which illustrate one aspect of the accompanying story. There are few journalistic skills required to produce this type of photograph since it must simply support aspects of the intended article. Additionally, these photographs are not pre-planned or designed to support or comprise a narrative solely on the basis of the photographs. It is this latter characteristic that is crucial to delineate between photo-illustrations and photo-reporting.

Prior to 1893, most newspapers were using photo-illustrations. The year 1893 is significant because it dates the first publication of a story visually narrated by photographs (Newhall, 1964). Gary Woodhouse describes this event as a deciding factor in the history of photojournalism; it had to lose its bonds to photography and become grounded solely in journalism instead. "Photojournalism has reached the point," writes Woodhouse, "where it must either break out into some new form and become accepted as a legitimate and equal contributor to newspapers or, alternatively, sink into the role of producing illustrations to prop up weak stories" (Baynes, 1971, p. 41).

There are three elements which enabled photojournalism to achieve this new form and to become an equal contributor to journalism; the first

was the discovery of its effectiveness as a tool to educate and to effect sociological reform; the second was the acknowledgement of documentary photography which valued candid images of action; and the third was the implementation of carefully planned and designed stories told only by means of photographs into daily newspapers and magazines.

In 1909, a photographer named Lewis Hine became the first photojournalist. Hine used his photographs to report on the conditions of workers in industrial society, with the intention of effecting social change.

For Hine, the art of photography lay in its ability to interpret the everyday world, that of work, of poverty, of factory, street, household. He did not mean "humble" subjects; he did not mean "beauty" or "personal expression." He meant how people live. He wanted his pictures to make a difference in that world, to make living in it more bearable. He thought of his pictures as communications, and he guided his technique thereby. To be "straight" for Hine meant more than purity of photographic means; it meant also a responsibility to the truth of his vision. (Goldberg, 1981, p. 240)

What sets Hine apart from previous photographers is his use of photography as a tool of sociology, and his dedication to the purist doctrine practised by those such as Eisenstaedt. Hine first used a camera as a visual record to accompany his work in sociology, when he worked with the Ethical Culture School in New York City. He believed it was his mission to procure irrefutable visual evidence of problems in society to motivate change; specifically, he intended to cure industrial capitalism of all ills. By 1908, Hine was producing photographic evidence of child labour. These images of weary, tattered children posed beside huge machines in factories were published in information pamphlets entitled "Child Labor Bulletins"

and "The High Cost of Child Labour." These publications are directly attributed with influencing the development of child labour laws (Newhall, 1980; Rosenblum, 1978; Taft, 1964). At this point, the two horizons, sociological and photographic, became one.

Sociologically, Hine learned that not truth but self-interest moved the authorities and that only irrefutable truth, delivered in a package of photographic image and data, would appeal to the sole force capable of moving them: public opinion. Photographically, he learned that the image which packed the most powerful social punch was that with the strongest aesthetic impact, because this was the image that most effectively made public a witness to the scenes of degradation that filled his angry vision in these years. (Goldberg, 1981, p. 248)

The successful integration of photography and sociology awards Hine the status of being the first photojournalist. He established and then followed a will to effect social reform using photographs as visual records created solely by technical expertise and a talented eye. In this way, the foundations for photojournalism were soundly systematised.

At the time that Hine was using photography as an instrument of social reform, the development of the Ermanox camera capped another technological innovation which contributed to the second element of the foundation of photojournalism. The integration of sociology and photography was crucial, but in the late 1800s and early 1900s, photographs were still used only as an accompaniment to newspaper articles. A small impetus was needed to promote the publication of carefully planned and designed stories told only by means of photographs, and the Ermanox camera provided this first step.

The Ermanox was compact, hand-held, produced images of an excellent quality and used light-weight lenses. It made indoor photography simpler and safer, since it did not require the lighting of dangerous chemicals. Further, the camera was so efficient and compact, it could be concealed and made unobtrusive so that subjects were unaware, or at least often unaffected, by the photographing procedure. Dr. Eric Salomon (1928) used this camera to capture spontaneous and unposed images which earned the title "candid" for the first time. He became famous in Europe for candid images of great politicians and statesmen in the middle of important meetings and discussions. For the first time, photographs imparted the sense that the viewing public was actually present while the images were taking place. Later in his career, Salomon also had the advantage of a portable, high quality camera body and lens system which further enabled him to take photographs that were candid and spontaneous. The 35-mm Leica which was introduced in 1925 provided the viewer with the visual sense of "being present" at the original event. These photographs seemed to imply that subjects and events portrayed within were completely unaffected by the photographer. As well, the capacity to make photographs was synchronized with the needs, standards and work strategies of news photographers. Once photographs of this nature were provided to consumers, they quickly dominated consumer demand since spontaneous and candid imagery in news photographs was quickly considered to be more important and valuable than clarity and precision of detail.

As a result of this latest technological revision, action and accuracy in photographs become more popular and certainly more important than aesthetics, although many artistic qualities in photography including composition, clarity, originality were still retained as ideals. Photographs of this nature were those such as the "Migrant Mother" by Dorothy Lange. This photograph portrays a weary mother who appears unaware of the photographer. In addition to a candid portrayal of this woman, its resolution, composition and uniqueness make it an extraordinary visual document. The eye lingers on her expression, the wiry strength of her arms, the air of destitute poverty implied by her rag-like clothes. This style of photograph became officially known as documentary photography which was the second step in the growth of photojournalism in North America.

Taking its name from a usage coined by the film critic John Grierson in 1926, documentary came to denote a discursive formation which was wider by far than photography alone, but which appropriated photographic technology to a central and privileged place within its rhetoric of immediacy and truth. Claiming only to put the facts directly or vicariously, through the report of first hand experience, the discourse of documentary constituted a complex strategic response to a particular moment of crises... (Edom, 1976, p. 9)

Gifford D. Hampshire (1976) attributes documentary photography with being a partner with photojournalism in what he refers to as a "symbiotic relationship" (like the ant to the peony). Hampshire explains the relationship as one where, "Documentary photography is the genesis of photojournalism and photojournalism is excellent only to the degree that the photographer practices the intellectual discipline of documentary photography." (Edom, 1976, p. 39) What is relevant here is that the

"intellectual discipline of documentary photography" laid the foundation for what would later become the intellectual discipline of photojournalism.

Documentary photography became extremely popular and received much publicity in North America since it was used by the United States government to document the depression and absolute poverty of inner America to garner public support for Franklin Roosevelt's New Deal (Tagg, 1989). In 1936, the Farm Security Administration, a federal government department, hired photographers to photograph migrant workers -- "that mass of humanity attempting to earn a living from dehydrated worn-out soil" (Edom, 1976, p. 38). Using eloquent storytelling and challenging photographs, the FSA photographers produced a visual message which indirectly improved the life-style of millions of rural workers (Edom, 1980). The impact of the over 270,000 photographs was stunning (Newhall, 1980), and the public voraciously devoured the credible and visually-impacting images produced by talented photographers such as Dorothy Lange and Walker Evans.

In an interview with Vicki Goldberg (1981), Roy Emerson Stryker (1973), head of the FSA, accepts the premise of those who assert that the FSA substantially influenced photojournalism. He points out, however, that the administration employed no news photographers to achieve the style and content of these extremely influential FSA photographs; rather, he hired photographers who specialized in the documentary style. The quality and standards inherent in these images enriched photojournalism, and cemented the demand for photo reportage in daily newspapers. Stryker

effectively summarized the difference between documentary photographs of the style produced by his photographers, and photo-illustrations.

... I think the best way to put it is that newspictures are the noun and the verb; our kind of photography is the adjective and the adverb. The newspicture is a single frame; ours, a subject viewed in series. The newspicture is dramatic, all subject and action. Ours shows what's back of the action. It is a broader statement - frequently a mood, an accent, but more frequently a sketch and not infrequently a story. (Goldberg, 1981, p. 353)

After the work of the FSA was publicized and the demand for photoreportage increased, the public was no longer satisfied with images that portrayed one aspect of an event, it wanted visual narrative. Rather than simply producing illustrations, the FSA pictures captured emotion, strength, and the personality of the people portrayed. Most important, the photographs were evocative of humanity. Photographer Ansel Adams referred to the photographers who worked for the FSA as sociologists because, he wrote, they studied the structure and functioning of human society in an objective manner (Edom, 1976).

In an analysis of Adams' view, Clifton Edom (1976) considers the FSA as one of the main influences on the social structure of photojournalism. The principles and practices were already in place; the FSA photographs established the intellectual standards.

The river of realism that was characteristic of Farm Security photography already was branching out into many streams. As each followed its course, it carried the attitudes toward photography developed under Stryker. Later, these streams, swollen with the hundreds they induced to join them on their way, rejoined to make up what is now considered the mainstream of American photojournalism. (p. 38)

As a direct result of this influence, in 1939, photographers Dorothea

Lange and Paul Taylor published *An American Exodus*; a visual narrative where word and photograph were closely related (Newhall, 1964). In 1941, Walker Evans and James Agee published *Let Us Now Praise Famous Men*; a visual narrative without a single word (Newhall, 1964).

At this point, when the intellectual discipline of photojournalism was in place, the third element for the implementation of photojournalism came into effect: documentary photographs were published in a complete and harmonious series of photographs and some text entailing a coherent narrative. While documentary photographs are an important aspect in the foundation of photojournalism, they require a structured format to create a comprehensible narrative form. It is the development of this format which made it possible for debut of the photo story and created a forum for photoreportage.

In *Modern Photojournalism: Origin and Evolution 1910-1933*, (1973) Tim N. Gidal compares the attitudes of newspapers to documentary photography in North America and Europe to illustrate the comprehensive process developed by North American photographers to ensure their visual narrative was clear, appropriate and entertaining.

In Europe, during the late '20s and early '30s the photoreporters freelanced their work and found magazines who were interested after the work was done. In contrast, in the U.S., long discussions and detailed planning often proceeded a reportage which was the work of days rather than hours. (p. 27)

In order to achieve the finest products, photoreporters dedicated hours to achieving a potential psychological influence on the viewer and to present a

coherent visual narrative. Gidal quotes an editor-in-chief who wrote:

The independent photoreporter represents an entirely new type of journalist who must be regarded as a kind of special correspondent. He leaves nothing to chance when pursuing the subject of his interest and he seeks to present it in the best and most suitable form by means of intensive preparatory work. He cannot begin without the basic idea, by which he must be virtually obsessed. Thus the intellectual and artistic achievement of a genuine photoreportage cannot be overestimated. (p. 27)

Magazines also laboured to attractively present these visual narratives to their readers in the best and most appealing form of photographic report (Gidal, 1973). In 1931, the German magazine, *Die Berliner Illustrierte Zeitung*, devoted three pages to a series of picture of monks in their monastery. By 1936, *Life* magazine was publishing both spot news and feature stories presented almost entirely in the format of visual images (Newhall, 1964). For the first time, this series presented more than a mere visual image, it transported the viewer into the atmosphere of the narrative (Gidal, 1973).

"Photoreportage finally was recognized by the *Berliner* as an important area of contemporary photojournalism. There was an element of discontent with the static photos," Kurt Szafranski [publishing director of *Berliner Illustrierte Zeitung*] recalls. "This is what led to experiments with new ideas, and thus the foundation for a new format for picture journalism was laid." (Gidal, 1973, p. 19)

The "picture story" as we know it was born, Gidal explains.

Between 1929 and 1931, photoreportage expanded to cover all areas of life. The world in front of the lens had become its natural environment. The photoreportage, now on a level with the written report, was accorded recognition as an expansion and enrichment of journalism. (p. 29)

It is at this point that photojournalism equalled print journalism in

every aspect. Both were oriented around a strict intellectual discipline, the methodologies for the gathering, composing and disseminating news information were clear to newspaper and journalist in both fields, and the assignment of value for informative nature by the public was equal, although in some cases original photographs of events were more popular than the print stories (Chapnick, 1983; Cockburn, 1975; Martin, 1987).

During this time, the press propagated a methodology of photojournalism based on visual narrative which was incorporated into the ideology of the mainstream process of today. It was making information of every kind widely available, and was using photographs as an essential part of its resources and communications plan. When one looks at press photographs taken at that time one can at once sense the element of stark realism. However puerile some aspects of the popular press might have been, it sought to give its consumers a clearer view of what was happening in the world than they had ever had before (Baynes, 1971).

From the introduction of photoreportage to the end of the Second World War, photojournalism enjoyed a golden era. The Associated Press Wirephoto network which began in 1935 grew from 40 to 700 members. Magazines oriented around visual narratives such as *Life* and *Look* were founded in 1936 and 1937, respectively and were immediate successes. Photojournalists knew what type of work they aspired to achieve as they worked to emulate the social reforms of Lewis Hine; the candid revelations of Dr. Eric Salomon; the poignant humanity of Dorothy Lange; or the raw images of war by Robert Capa. The standards and ideals of the profession

were clear; they were successfully attained by the experienced and these successful photographs became the aspirations of novices, interacting within the socialization process to form a coherent structure of principles, practices and uniform systems of belief among mainstream photojournalists.

Newspapers responded to this social structure by developing organizational processes to accommodate photographers and their photographs. As part of this process, newspapers also developed ideals regarding which photographs would be valued and given publication space (Evans, 1978). Based on this, it is possible to define and describe the various criteria for content and style which determined the best photographs for photoreportage, and which also determined those that were chosen for publication. In *Modern Photojournalism: Origin and Evolution, 1910-1933*, Tim Gidal (1973) defines a great photoreporter as one who has a talent for observation and the ability to experience and participate intensely, and who has the "sensitivity, empathy and intuition necessary to capture the essential quality of the whole in the single picture."

Values were generalized and allocated to news photographs. This helped photo editors and photojournalists to determine which news photographs would be considered most worthwhile for newspapers and news magazines. Harold Evans (1978), former editor of *The Sunday Times*, explains that he selected news photographs for publication if they contained

at least one of the three following values: animation², relevant context³ and depth of meaning⁴ (Baynes, 1971; Edom, 1976; Evans, 1978). Animation implies that the photograph exhibits a sense of liveliness and vigour and often evokes wonder at the ability of the photographer to capture a moment which clearly illustrates a sense of before and after by portraying one aspect in time. Relevant context is a little more difficult to describe, although easy to identify. Kenneth Jarecke's photograph (1992), "Charred Body of an Iraqi Soldier," directly illustrates the plight of many Iraqi soldiers who met with a force and technology far greater than their own. The third value, depth of meaning, applies to photographs which actually portray a story. In a photograph by Jean-Claude Coutasse (1991), "Civilians huddle in a ditch to escape bombing during air raid of new Osijek in Croatia," the terror of the people, their desire to outlive the bombing, and the normality of their appearance combine to provide a picture of life for these Croatians.

These values are not mutually exclusive of one another, and may also be combined in one photograph. In his most famous photograph, "Death of a Loyalist Soldier," taken during the Spanish Civil War, Robert Capa has

2. See "Atlanta Braves catcher Greg Olson flips after colliding with Minnesota Twins runner Dan Gladden at home plate during the 5th inning of the World Series game 1" by M. Morse (Ed.) (1992). *The Best of Photojournalism 17*. Durham, N.C.: National Press Photographers Association, p. 145.

3. "Charred Body of an Iraqi Soldier" by Kenneth Jarecke for *Time*. Published in M. Morse (Ed.) (1992). *The Best of Photojournalism 17*. p. 9.

4. "Civilians huddle in a ditch to escape bombing during air raid near Osijek in Croatia," by Jean-Claude Coutasse, Contact Press Images, in M. Morse (1992), *The Best of Photojournalism 17*, p. 114.

captured the image at the exact time that a bullet hits the soldier's head (Monk, 1989). While some, such as Phillip Knightley (1975), argue that this photograph was staged, there is little doubt that the animation in this photograph is outstanding: arms outstretched and flung back, one hand still clutching a rifle, the soldier is poised in his backward fall, dying as he falls to the ground. If it had been taken when the soldier was closer to the ground, or if it had been taken right before his body registered the force of the bullet, the quality of timelessness, drama and action of a soldier hit by a fatal bullet would be lost. The context of this photograph is absolutely clear, too. The soldier has suffered what all soldiers dread: a mortal wound. The combination of these qualities, then, provides a depth of meaning which is unique to Capa's style of photography (Knightley, 1975). The timeless pose of falling death makes this photo poignant, unforgettable and replete with depth of meaning.

The second standard applied to news photographs is based on the aesthetic qualities of the photographs, just as great journalism is often compared to aspects of literature. The style or composition of the photograph depends upon one's talent and ability to wield the technology of photography. This standard involves using the basic mechanics of the camera in such a way that subjective interpretation insinuates itself to make the pictures technically distinct. In Christopher Morris's photograph, "A priest talks to a young Croatian fighter before he leaves for duty," the style is evocative and powerful (Morse, 1992). It is doubtful that an amateur would be able to take a photograph that illustrates so much

detail by the nature of its angle, exposure, and composition. The photograph ends just at the subjects' shoulders, focusing the eye on their body language: the clenched fists of the soldier, the clasped hands of the priest. The uniforms of both are contrasted, too: the soldier with the knife at his belt, the black-frocked priest with a scarf as his belt. The eye takes in every detail, naturally.

It is possible to teach the basics of photojournalism, (it was accorded academic status in 1942 by Frank Luther Mot at the School of Journalism at the University of Missouri at Columbia). What separates great photography from good, however, is the ability to use the basic mechanics of the camera in such a way that subjective interpretation insinuates itself to make the pictures distinct, without manipulating the photograph after the fact beyond the need to clean up negatives and compensate for exposure time. This restricts photographers to the talented use of framing, composition, lighting, resolution, and legibility without changing any of these from their natural status.

For example, fashion photography differs from documentary and news photography in that its composition and lighting are manipulated intentionally. Where the news photographer must look for perfect composition and lighting inherent in the event, and must work within natural boundaries to take the best picture, a fashion photographer can labour with models, makeup, and lighting for hours to obtain the best result. Both photographers may be equally proficient with the camera, and will use the same technical knowledge to obtain pictures but the criteria for

different styles emphasizes different use of techniques. And in fact, since the news photographer must plan and anticipate the best shot whereas fashion photography plans the event with the ultimate goal of taking the best shot, news photography is more difficult and requires a complete understanding of the event as it unfolds before the camera, as well as the ability to anticipate the ultimate time to capture the photograph that will be used to illustrate the event in its entirety.

Second World War to Present

The advent of the Second World War marks the beginning of the end for feature stories narrated by photography. The cost of developing chemicals, the shortage of paper, and the rationing imposed during this time caused newspapers to allocate less space for photographic layouts (Baynes, 1971). At first, the change was intended to be temporary; a reaction to chemical shortages and the need to reduce costs. But even after the shortages were eliminated during the 50s and 60s, the photographic feature story in newspapers and news magazines never returned to its previous eminence. Some magazines which depended upon news photography as their foundation such as *Life*, continued to publish but their importance, at least with regard to their contribution of a visual element to the production of knowledge, diminished. Photographs no longer comprised narrative feature stories on a regular basis and were relegated to spot news and photo -illustrations only.

In the first blow to photojournalism, photo editors lost some of their

power since they were no longer spending much of their time supervising and editing photographic feature stories. The space allotted to this type of feature was never increased and photo editors have not regained the status, influence, and power they held during the mid-thirties and forties (Baynes, 1971). In the pre-war process, photo editors were accustomed to controlling pages of the newspaper. Now, their only input was to select key photographs to accompany print articles. Less frequently, an excellent photograph indicative of an entire feature would be published alone, accompanied by a longer caption three or four sentences long, known as a stand alone. Otherwise, photographs were reduced to news illustrations in newspapers.

With the decrease in space for photographic feature stories, and the increased exposure of the public to visual narrative on television, photojournalism relinquished its status as a medium equivalent to print journalism in credibility and informative power. This status was further threatened in 1980 when public demand for colour photographs expanded and colour became the preferred form (Becker, 1991). Superficially, it might seem that photographs normally produced in black and white could then be simply produced in colour instead. Upon further examination, however, it becomes apparent that this technological change seriously affected the quality and processes of photojournalism because it shifted control over the technology and, therefore, over the photographs.

This shift in power can be directly attributed to both financial cost and production processes of implementing colour technology into a

newspaper. Karin Becker (1991) writes: " Embedded in the move to colour...were some serious consequences for photographic reporting" (p. 385). Colour, first and foremost, appeared on the front pages of newspapers' daily and Sunday section-fronts, simultaneously with increased sales of colour advertisement pages.

However, the position of paid colour ads and the edition's size usually determined the use of colour, not editorial decisions about when and where it served the best journalistic purpose. (Becker, 1991, p. 395).

With the knowledge that the public preferred colour, newspapers endeavoured to use colour as often as it was financially possible. But colour printing is more expensive than grayscale, therefore, allocation of colour within the newspaper was sometimes dominated by edition size and advertising dollars. For example, if an advertiser was willing to buy a colour advertisement, then the page with the advertisement and its corresponding page would have colour. This is still the case in smaller community newspapers such as Ottawa's *Today's Seniors* newspaper. Publisher Cliff Anderson explains that a certain portion of the budget is allocated to colour printing based on the premise that readers prefer colour. Additional colour pages are added when salespeople are able to persuade advertisers to pay extra for a colour ad. Once paid for, the colour is then used to highlight editorial copy that lies on corresponding pages. Otherwise, for the most part, the pages remain grayscale.

Production capabilities were also influencing colour photojournalism. In her analysis of this influence, Becker (1991) writes:

When the best photographs by journalistic standards were technically difficult to reproduce, conflict arose between photojournalists and production personnel. This phenomenon had long been routinized for black and white photographs; photojournalists knew how to accommodate both news values and production standards, and production work could reproduce their work satisfactorily. Colour, with its narrower latitude for error, disrupted the pattern; decisions previously made in the news room were being made by production personnel, and photojournalists were concerned over the loss of editorial control. (p. 385)

One of the practical problems with the switch to colour was that photojournalists were not informed in advance whether a colour or black and white photograph would be used in layout. In order to ensure that photographs accompanied stories, photographers had to supply production with both black and white and colour film, and complained of missing shots while switching cameras and of having good colour photographs on days their papers could not use them (Becker, 1991). Often, too, if a photograph was to be placed on a page with colour, in light of public preference for colour, the editorial decision was often made to select the colour photograph even though it had less journalistic impact. If a photo wasn't brilliant colour it wasn't run, regardless of other content qualities. Thus, photographers opted for colourful scenes and scenery for the sake of colour, not content.

Another element affected by colour technology was the actual taking of the photograph. By nature of its technology and expense of developing, colour photography demanded better planning, lighting and more interference with subjects to obtain the best exposures. In an interview with Shiela Reaves (1987), a University of Wisconsin journalism professor,

Jackie Greene, director of photography at *USA Today*, detailed the extent of the control exerted by the news organization on the 584 free lance photographers who contributed work for publication. The photographers receive "precise technical instructions with each assignment," he told Reaves (p. 27).

We tell them (photographers) to shoot the film speed and we'll filter and screen electronically the green. We tell them the ASA to shoot and when to use fill flash. We ask a lot of questions to start with. You win half your battle if people do good quality from the start. (p. 27)

With production taking such control over photographs, photographers were forced to "arrange" or recreate events to obtain colour photographs. They did not stage the event in the sense that the event would not have occurred without the photographer's interference, however, some photographers requested re-enactments or directed subjects to obtain the best exposure.

As they become more skilled and it became more difficult to realize the 'set up' photograph (with lighting so 'natural', for example, the subject looks 'unlit,' *News Photographer*, January, 1987, p. 38), some photojournalists became concerned. (Becker, 1991, p. 386)

In a reversal to the past trend, subjective interference to obtain good colour images became more acceptable to the point that it became more difficult to determine which photographs were arranged, and which weren't.

As one picture editor expressed it, "We're making more pictures than we are taking", developing habits that threaten the credibility of the photograph as news document. (Becker, 1991, p. 386)

In response, the National Press Photographer's Association (NPPA) issued rules and devised new standards for competition to inform photographers

how to differentiate between images derived from life as it is observed (feature) and images contrived by the photographer (illustration) (*News Photographer*, April, 1987 in Becker, 1991). In a response similar to that of Emerson and Stieglitz over 100 years ago, photographers reacted to this new technology and its potential threat to their trade by attempting to define boundaries based on the accepted amount of subjective interference allowed by the photographer. Their response was less effective, however, due to their loss of power over the new technology as well as the expansion of the field of photojournalism. The process is too dependent upon many differing variables in different news organizations, and boundaries can no longer be uniformly applied. The photographers may be following principles established a century earlier, but the actions of technicians and production personnel interfere.

Further, because the arranged photographs were so difficult to discern from the observed photographs the public could not be expected to consistently value one style over the other. Basically, the public came to demand the same resolution, composition and clarity of arranged photographs in photographs captured by observation. This response is in direct contrast to that of the 1920s when the public avidly demanded lesser quality photographs which offered candid images of subjects.

In the mid-1980s the change to colour negative film meant that colour photographs could be reproduced in black and white which reduced some of the problems associated with colour photography. However, where editorial control transferred to production personnel, it was difficult for the

control to be transferred back. A power shift where autonomy reverts back to the group which originally retained it is very rare. Shifts which occur in reaction to crises or lack of knowledge seem to have greater effect and staying power than those that should occur because they are beneficial to journalism. Once power is lost, it is very difficult to regain.

CHAPTER TWO

The Revolution is Underway: Digitization exerts its influence on thought processes, operational practices and news quality.

By the late 1980s, photojournalism had suffered serious challenges to its production, organization, and principles of operation. Then, before it could regain lost ground, digital technology made its debut. The advent and consequent effects of digital technology on photography and photojournalism merit their own chapter in this thesis since they represent a complete change in technology. No longer were changes the result of constant revisions to the existing technology. Now, a completely new and different technology initiated several changes which may have seemed superficial at first, but upon closer examination indicate that the repercussions resulting from these changes are substantial. This chapter seeks to document the comprehensive differences between digital and chemical technologies and how this has affected photojournalism to the present. It focuses on the repercussions of the implementation of digital technology into North American news organizations and why the technology was implemented in such a manner.

Most important to this discussion is that the basic technology of photography is no longer being constantly revised, photography itself has now changed completely into a different venue. Many researchers (Ong, 1982; Postman, 1993; Stephens, 1988; Tomlinson, 1993) refer to the move to

digital technology as a technological revolution since it involves a complete and comprehensive change in the technology base. Others (Lester, 1991; Pavlik & Dennis, 1993) disagree, however, preferring to allude to it as an evolution since the transition has encountered little resistance or conflict. To settle this debate, one must acknowledge that digital technology makes information production and dissemination faster and more efficient which gives the appearance that journalists are simply finding more efficient ways to continue with traditional processes. On a superficial level, this appears to mimic an evolutionary process. This, however, ignores the most important aspect of digitization of the media; the technology base for journalists changed to such an extent the traditional decision processes and work strategies guiding journalistic practices in the collection, production and dissemination of quality news are no longer applicable in their current state.

Since the technology base has changed in advance of any pro-active changes in standards, ethical guidelines or work strategies, it appears that the implementation of digital technology without recognition of potential changes to thought processes and journalism practices compromises standards of quality. The effect is the same as would occur if one were to impose oral standards of newsgathering on a print medium (Stephens, 1988). Neil Postman (1993), author of *Technopoly*, warns that in general, to embrace new technology without question, "creates a culture without a moral foundation. It undermines certain mental processes and social relations that make human life worth living" (p. xii). This thesis argues a

similar influence is already evident in journalism; specifically, in the belief systems and practices of journalists who work in media which have already embraced digital technology.

The revolutionary nature of digitization becomes evident when one surveys the changes resulting during the previous technological transformation from orality to literacy as described by Ong (1982), and Stephens (1988). According to these authors, the literate see and comprehend the world differently than the preliterate do. Stephens (1988) argues that writing is a revolutionary technology for it completely changes and transforms thought processes and cognitive comprehension. For example, writes Stephens, "Caelius and other literate newsmongers owed their predilection for dispassion and analysis in part to their literacy, to the objectification of language and, consequently, of thought that writing provides." (p. 52)

Essentially, dispassion and analysis are characteristic of oral communication since it precludes such skills as categorization, analytical reasoning, and objectification which are only possible in a literate sense.

Indeed, the gradual switch over the centuries from reliance on spoken news to the use of the written word to transmit news may have contributed to the modern journalist's proclaimed allegiance to objectivity. (Stephens, 1988, p. 52)

With this last statement, Stephens proposes that the change to literacy led to the development of a journalistic style which embraced an objective perspective, a standard which later became one of the fundamental principles of mainstream journalism. He links technologically-related

changes in thought processes with consequential changes in belief systems. This same effect is also evident in the move to digitization where thought processes change in due course from those that are accustomed to working with passive media to those that are exclusively oriented to interactive media.

It is interesting that digitization has already started to exert cultural influences in North America, affecting many socio-cultural aspects including the thought processes of the public. This has been documented by D. M. Lowe (1982), who writes that the 20th-century epistemic order, based on a synchronic system of binary opposition and differences of identity, is currently replacing the previous episteme of bourgeois society. The episteme of bourgeois society, dated from the late 18th century to the early 20th, was founded on rules of development in time and epitomizes the technological principles of chemical-based photography (Lowe, 1982, p. 5). It was defined from a perspective based on objective science; its foundation was based on the dynamic process of development which incorporated a new consciousness of time as process (Lowe, 1982).

In contrast, the new episteme of the electronic or digital culture is multi-perspectival and environmental; it is founded on structuralism and semiology, for binary opposition reduces information to positive and negative digits which has made the cultural relation between the sign and signifier purely arbitrary (Lowe, 1982). With the advent of this new episteme, and as cultural knowledge and understanding become more widespread, this thesis hypothesizes that digitization will eventually

displace the former cultural mode of thought which accorded photographs credibility and meaning. At first, people will try to judge the new binary technology in terms of the objective standards of the old, which is exactly the process followed by many journalists, news organizations and consumers. Eventually, however, this will prove unsatisfactory and will result in general disillusionment with the credibility of journalism media which utilize visual imagery. This attitude is already becoming more prevalent and is evident in the numerous letters and electronic mail correspondence with editors where consumers have discovered credible news organizations such as *Time* magazine (June 21, 1994) and *National Geographic* (February 1982) using digital technology to create photographs without proper attribution.

Chapter one has established that, in general, the North American public is willing to endow news photographs with a fundamental credibility. This willingness can be directly attributed to socio-cultural attitudes and knowledge developed within the episteme of bourgeois society (Lowe, 1982). Historically, from photography's inception, the ideologies, assumptions and definitions of photography and photojournalism for photographers and consumers developed and adapted to the restrictions and requirements of chemical and light-based technology. In a symbiotic relationship, both photographers and consumers participated in the popularization of photography as a documentary tool and the limitations of the technology were understood by both.

This technology prevented photographers from altering photographs

to make images appear in the photograph that were not present when the light-based exposure was made. Strategies to produce quality news were therefore tailored around these restrictions. Images captured in this technology cannot be subtracted from the negative, and the contents of negatives cannot be rearranged or combined. This is not to imply, however, that photographic manipulation is impossible; rather photographs of this nature "can be amended by other means, but the tampering is detectable" (Tomlinson, 1993). Many consumers of chemical photography were well educated regarding its technological properties, in fact, the main source of photography's appeal was that it was relatively comprehensible to the educated lay person. Within chemical-based technology, it was not yet so specialized and complex that it took rigorous mental discipline and training to understand it. Consequently, much of the literature on photography, even in the daily newspapers included detailed technical and scientific descriptions of how the various photographic processes worked (English, 1984).

However, it must be considered that literature on the digitization of photography is almost equally prolific today, and numerous articles are available on every related topic, explaining the technology and elaborating on various related issues. What hampers the growth of popular knowledge at this time is the technical complexity of the technology, (a factor which will be less important as more people become computer literate). What this means, however, is that we are at the cusp of an epistemic change which harbours a technological revolution. After the changes have been achieved,

the many aspects of photography, visual imagery, and journalism influenced by the revolution will no longer have relevance to that which is new. Just as the engravers and sketch artists became obsolete in the newsroom with the advent of photography, so may traditional photography become obsolete with the advent of computerized journalism. What is important to this thesis, however, is since the effects of the new technology are not fully implemented into journalism, it is still possible to anticipate potential effects and then realize the means to control them.

Digitization enables a person to change any image in any way in a manner that is undetectable. A photograph can be copied by a scanner which reduces both black and white and colour photographs to a pattern of pixels, or binary digits, which can then be manipulated using computer software. Using software such as Adobe Photoshop (Macintosh) or Photostyler (Dos) one can clone, paint, colour, erase, create, magnify, shrink, and combine any elements of the photograph. The process can take as little as 15 minutes or as long as hours, depending upon the detail to be manipulated and the size of the file. The first successful transmission of a digitized colour photograph negative over phone lines to the photographer's headquarters occurred July 30, 1984, (*Business Wire*, 1984). It took less than four minutes for the cover picture of the *U.S. News & World Report* to be sent by a photographer using a host Scitex Response System. The experiment was so successful that the vice-president of Scitex, Charles Benzing, predicted in 1984 that the technology would be used exclusively at the Los Angeles Olympics and the Republican National Convention

(*Business Wire*, 1984). Benzing was later proven to be correct (Becker, 1991).

The technology has developed from Scientific Technology, which was first developed in Israel by Eli Arazi in 1968 to design wallpaper and fabric (Callahan, 1993). Arazi used the technology to create Scitex, a workstation for image processing which entered the publishing market in 1979, with a proprietary system for generating separation negatives for printing processes that includes software for the manipulation of photographs (Callahan, 1993).

To illustrate the changes involved in switching to digital processing of photographs, it is useful to examine the repercussions of the Associated Press's move to digital systems in 1990. Associated Press (AP) chose to digitize its system for disseminating photographs because it would immediately improve quality, simplify the production process, and replace chemical darkrooms with one that is environmentally friendly and less costly in the long run (Crosby, 1990). "Finally", promised AP, newspapers "could edit and process photos with computers, the way they had been handling words for years" (Crosby, 1990, p. 2). When AP decided to switch to digital systems it chose Leaf Picture Desk systems and supporting software, and offered it for a nominal fee to all 950 subscribers from its LaserPhoto network. The basic system is priced starting at about US \$30,000 but more complex systems easily cost up to US \$200,000. It includes a Leafscanner, which is a portable negative/ transparency scanner and transmitter adding storage capability and technology to compress digital

signals before transmission. Also necessary is a spooler, which stores the pictures after they are scanned and before they are transmitted, allowing photographers to scan and edit photos instead of stopping to transmit each one before beginning the next. A compander compresses the digital signal allowing much faster transmission along phone lines and which must be placed at each end of the line to send and receive a compressed signal. Finally, a Leafax is also required which is a terminal enabling the simultaneous viewing of a number of photographs.

Toby Massey (1990), assistant chief of bureau for newsphotos, Associated Press, Washington, D. C. describes the process in detail:

The images are recorded on negative colour film, developed in a dry-to-dry film processor and then edited direct from the negative. The Washington film editors look at about 50 rolls daily. Once the decision has been made on the image to be used, we depart the film world and enter the electronic world. We use the Leafax negative transmitter in conjunction with the Electronic darkroom. The negative is placed into the Leafax and the image is called up on a small television screen either in monochrome or colour. It is cropped. The contrast is lightened or darkened. The caption is written. The image is then digitally transmitted to the Electronic Darkroom in about one minute. Once in the Electronic Darkroom, the image is called upon a 1,000 line screen where it is checked for quality and the caption is reviewed. (p. 50)

Newspapers who were part of this network had little choice; to refuse the new electronic system meant that their competitors would receive AP photographs and they would not. For most mainstream newspapers who rely on wire photographs to supply national and global images in a fairly inexpensive manner, this would seriously affect the newspaper's competitive edge. As a result, few newspapers declined (Crosby, 1990). AP

was so insistent on this new process, it reimbursed newspapers which bought and installed equipment ahead of AP's schedule. In addition, AP reimbursed newspapers which purchased picture desks from other electronic picture desk vendors with a weekly rebate of \$47 for five years. This equals the after-tax savings AP would gain by not installing an electronic picture desk (Crosby, 1990).

As a result of the push by AP, many newspapers implemented this technology sooner than they would have had they been given a choice (Davis, 1992, p. 25). Consequently, the technology was not approached gradually, which would have allowed news organizations to adapt to the new process or to dominate and structure the use of digital technology according to sound journalistic practices. More specifically, it was not implemented within the news process from a point of view oriented to journalistic integrity. Rather, digital technology was thrust upon many newspapers leaving them no time for preparation or consideration of consequences.

When one considers the implementation of digital technology into the news organization it appears that there are three main areas where problems with photomanipulations occur. The first is that the equipment must be operated by those who have computer expertise. Those who do have this expertise are generally not journalists but computer experts who are hired to work with the computer equipment. The second problem is that the photojournalists adapt to the digital application without tailoring their traditional-based concepts. This leads to ethical problems and exacerbates

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PM-1 3½"x4" PHOTOGRAPHIC MICROCOPY TARGET
NBS 1010a ANSI/ISO #2 EQUIVALENT

PRECISIONSM RESOLUTION TARGETS

their loss of control over photographic production. The third problem is that some journalists are willing to ignore their ethical guidelines and to use the technology to create a better photograph.

The first problem which arose when news organizations implemented digital technology was that the new process involved equipment and procedures not easily understood by non experts (Crosby, 1990). AP sent in a trainer to explain the systems and its processes, but those who became experts were not necessarily photojournalists or photo editors.

Instead, the person interpreting the photographer's negative is likely to be someone from the production or technology group, or a designer from the art department, not the photojournalist who made the image on the scene. (Callahan, 1993, p. 56)

In some cases, faced with the need to obtain knowledgeable personnel almost immediately, some newspapers coped by training those such as copy editors to use the electronic systems (Fitzgerald, 1990). In an interview, Cheryl Shoji, *Vancouver Sun's* assignment photo editor, said she has seen this problem first-hand and deals with its repercussions on a daily basis. "The problem is the implementation of technology into the paper," she says bluntly.

There are an awful lot of people put in front of the computer who don't know how to use it, and those who do learn how to use it are not getting into ethics and news discussions. (August, 1995)

The above illustrates a major difficulty faced by news organizations when they implement the new technology: digitization occurs in a highly

complicated computer system and has little or no connection to the field of photography or the work of photographers. It is, however, entirely connected to the US \$21-billion world of technology, computers and cyberspace.

Gary Hoenig, editor of *NewsINC* (1990) agrees that putting computer experts in charge of the photographic processes "won't turn button pushers into journalists" (p. 52). Personnel whose main concern is the computer technology and its marvellous capabilities will use different standards and principles than a photo editor or photojournalist. "Some graphics people have no problem doing a photo manipulation," says Photo Assignment Editor Cheryl Shoji (1995) describing how the *Vancouver Sun* tackled this problem.

They [the computer experts] are artists and graphics people who specialize in digital technology. At one time they had a contest to see who could do the best manipulations which were undetectable, but we had a discussion with them about it and they agreed to cooperate.

While some manipulations are done by those who are more enamoured of the technology than journalistic integrity, this problem is further exacerbated in that those who would emphasize journalistic integrity have lost much of their control over the production process. In an article for *Forbes*, (1993) Sean Callahan, founding editor of *American Photographer* and editor of *Digital Photography* (1992, Pond Partners/Random House) aptly summarizes the decreasing role of photographers in digital technology. Callahan writes:

At the Macworld Expo in San Francisco last January, Ira

Nowinski⁵ warily eyes a large monitor demonstrating a CD-ROM showing still photographs of the Clinton campaign by *Time* magazine photographer P. F. Bentley. As picture after picture appeared on the computer screen, he shook his head slightly. "I'm a famous photographer, but no one would know me ... not here," he said almost wistfully. (Callahan, 1993, p. 56)

According to Callahan, many professional photographers face this new technology with "a sense of fear and wonder."

They are usually middle-aged men, not members of the digital age. Though some are convinced they will never fit into this new world, they come [to Macworld Expo] anyway, hoping to get a glimpse into an uncertain and disconcerting future. (p. 56)

Their response to the comprehensive effects of the new technology, writes Callahan, is often one of depression. He describes the expensive well-worn cameras worn by professional photographers which are regarded as badges of honour at a Photo Marketing Association trade show, but are now the equivalent of an albatross at the Macworld Expo.

However, not all photojournalists react to the new technology in a negative way. Kurt Foss, a graduate student at the University of Missouri School of Journalism, who developed an Electronic Imaging Lab at the University, believes that photojournalists should learn to utilize computer technology and encourages them to do so. He warns they should avoid leaving the computer technology to other journalists or, even worse, computer technicians. Foss writes:

Photojournalists today need to know about the new technology.

5. Ira Nowinski, whose black and white prints of opera have gained a small but respectable following among collectors on the West Coast (Callahan, 1993).

They need to be sure it's used wisely to enhance their work, not to devalue it. It's going to change the world they work in tremendously. It'll be important that photographers and photo editors retain some control. (Peters, 1990, p. 52)

John Murray, senior staff photographer at the *Vancouver Province*, works within a fully digitized newsroom. Murray and his fellow staff photographers have taken a progressive approach to the practical aspects of the technology; rather than being confused or daunted by digitization they have incorporated it into their daily photo assignments. Murray elaborates:

I've been in photojournalism all the way from black and white to digital. We've been fully digital for a few months here at the photography department. We use digital cameras -- the NC2000. You just point and shoot and they're like [chemical-based cameras]. We've all learned how to do it properly: we like it quite a bit. (August 22, 1995)

Murray and his colleagues in the photography department have adjusted to using digital cameras but he admits that they treat them as if they were chemical-based. For example, the term "electronic darkroom" is used to describe the computerized processing of photographs. This term is an oxymoron which tries to make the new technology sound theoretically compatible with the chemical concepts of photography.

Murray says he avoids using digital technology to achieve effects which were not possible with chemical technology in order to protect the credibility of his work. However, it is interesting to note that he approaches credibility from a view oriented to chemical applications even when he is describing digital technology. His response correlates with the attitudes and reactions of earlier photojournalists who were able to constantly adapt to new developments in technology. Unfortunately, by approaching digital

technology from a chemical-based perspective, new and different situations which arise from digitization can cause overwhelming problems.

Murray points out that one such problem with the change to digital technology in his department is that where photographers used to develop their own photographs in a darkroom and then prepare them to be camera-ready for publication, now graphic artists complete the preparation of photographs on a computer. Even in a photographic department where the photojournalists have embraced the new technology, control over much of the technology has still shifted to computer operators.

One consequence of this change is that graphic artists sometimes manipulate photographs in ways that are unacceptable to the photojournalist. When a graphic artist manipulated a photograph of hockey player Alexander Mogilny, Murray condemned it as, "The stupidest thing the *Province* has ever done." What this incident illustrates is that even though the photojournalists may have adapted practically to digital technology, this control is not extensive within the news organization. Therefore, in addition to the lack of appropriate ethical guidelines, control over photographic production has extended to non-journalists. It is crucial to weigh this factor when considering possible solutions to prevent photomanipulations.

"Its getting to the point," Michael Mauney told Callahan in an interview, "where any 20-year-old wunderkind at an ad agency will be able to sit down at the computer and realize the wildest idea. It will be great for business, but not for photographers" (p. 56). Mauney is a former staffer for

the weekly *Life* magazine who now shoots corporate annual reports.

The photographer and the camera, once central to the creative process, are being pushed out toward the edge, among the many peripherals in the image acquisition process. In the old model, a photographer took pictures, processed and edited the take, and delivered the photos to the client for publication. Today, assigning a commercial photographer to shoot original material is only one of several options -- and usually the most expensive for the increasing numbers of clients with computers and modems. (Callahan, 1993, p. 56)

Nancy Davis (1992) warns that photographers should maintain control over their images as much as possible, but she concedes that they should, "be prepared for a battle with the production department over who controls images." "Remember," she warns, "editorial control is mandatory. After that, everything is negotiable" (p. 25). Harold G. Buell, assistant to AP's president and supervisor of AP's electronic darkroom project, argues that manipulation by production personnel is controlled when news organizations implement a four stage process which would place editorial staff in a position to oversee production personnel. The first stage involves the receiving and transmitting of photos on a picture desk. Production personnel then send the images to equipment to be bordered, cropped, sized which is where some content manipulations have occurred. Only in the third or fourth stages do editors and photographers edit the images and scan photographs. The problem with this system is two-fold: one, editors and photographers only see the images after production personnel have had access and perhaps have already effected digital manipulations; and two, due to financial restraints most AP members are only in Buell's first or second phase (Davis, 1992, p. 20).

Many newspapers have refused to acknowledge the potential repercussions of putting control over the paper's visual imagery into the hands of word editors and hand retouchers. However, the utilization of computer experts rather than photographers to select, edit and produce photographs distances photographers from the published image. In addition, it also means that news photographs are often evaluated and then edited by those who share different evaluative components than those oriented to credible journalism. Consequently, copy editors, designers or production technicians become the controllers of photographs, rather than those with editorial experience or a background in photojournalism. Obviously, one cannot expect people who are not photojournalists, or in some cases even journalists, to apply journalistic principles unless they are specifically trained to do so.

It is interesting at this point to contrast the difference between the problems which resulted from the advent of colour technology from those which ensued from digital. Colour technology caused a shift in power from photographer or photo-editor to production personnel who were often given the responsibility of selecting a photograph for publication based on its aesthetic qualities. Becker (1991) attributes the shift in power as lessening the influence of photographers because production personnel changed the criteria for publishable photographs. Even with the advent of colour photography, production personnel were still only able to evaluate photographs regarding their publishable quality; now, however, they are able to edit the photographs into what they believe is publishable quality.

For example, production personnel at the *The Orange County Register* changed the water colour of a swimming pool that had been dyed red to blue, thinking the photographer must have originally erred. Most 1984 Olympic coverage was treated digitally by production personnel so that the sky was a brilliant blue (Becker, 1991). In 1988, a youth with his zipper down was photographed for the *The Orange County Register* and without permission a *Register* technician zipped him up, much to the chagrin of top editors who said they would have vetoed the decision (Davis, 1992, p. 22).

"There will be less and less distinction between editorial and production," predicts Tom Porter, assistant managing editor of Graphics for *The Orange County Register*. "They [editorial and production personnel] will have to do a good balancing act between technical applications and journalistic considerations" (Davis, 1992, p. 25).

Where an editor motivated by journalistic ethics might hesitate to change a photograph for fear of compromising its integrity, a computer technician motivated by aesthetic appeal may not hesitate to remove an item from a photograph, to change the colour of the sky, or to add an image if it makes the photograph better. These incidents exemplify a breakdown in the social structure of the news organization. Whereas the structure was sufficient (in the sense that it was oriented to protect credibility) within the realm of chemical technology, the blending of positions which has occurred in the move to digital technology illustrates that it is no longer so. Decades of socialization where production and editorial personnel knew the differences in their positions, where the influence of production on editorial

was strictly regulated and defined, are overwhelmed by the change in technology and previous guidelines are no longer effective in the face of the new technology.

While many problems stem from production personnel making incredible content changes, the problems are not exclusive to this realm. The third area where problems occur are those cases where editorial advisers have used digital technology to enhance a photograph to make it "better." A recent example of this is the manipulated photograph of hockey player Alexander Mogilny which was Managing Editor Neil Graham's idea. Graham justifies the manipulation as being one for "fun," and which also provided a photograph that would beat the competition. This type of manipulation cannot be attributed to a failure of the news organization to control journalistic integrity and in fact goes against ethical standards developed in chemical photography which were designed to define which manipulations were acceptable. The nature of the standards is not as important to the discussion here as the fact that they are being ignored in favour of using new technology which is readily available.

Another frequent excuse given in manipulation cases where journalists (not technicians) were involved is that the person responsible for the manipulation changed the photograph because the digital technology made it easy to improve the photograph's aesthetic appearance. It seems that the ease of the manipulation has led some to believe that the manipulation is allowed (in a journalistic sense), almost as if the news quality of the photograph is unaffected by facile manipulation. Cheryl Shoji

says that at the *Vancouver Sun* she often sees digital manipulation of photographs which occur because someone has learned a new software technique. Shoji explains:

Also one aspect that comes up is people use the digital technology because they know how to use it. For example, a news photo in layout today was placed into the layout skewed. Why? Was there a reason -- to make more white space? Probably somebody learned something new and tried it on the photo. They do it until they get tired of it. For example, someone learned how to do type with various forms of shading. Its been in the paper time and time again in various places for the last two weeks. Hopefully, things will steady out, but then there is always new software. (August 22, 1995)

Skewing a photograph may be considered to be simply a fancy style change. However, in April 1989, the *St. Louis Post Dispatch* was embarrassed in an incident when Robert C. Holt III, the newspaper's director of technology and photography, removed a diet coke can from a photograph because, he said, it was so easy to do it on the Scitex and it made the photograph look less cluttered. The photograph was of Ron Olshwanger, winner of the 1989 Pulitzer Prize for Photography, celebrating with his wife after receiving the prize. Olshwanger was upset that the soft drink can was eliminated because it was important to him that readers and colleagues know that he was not celebrating his award by drinking alcohol. Olshwanger was a recovering alcoholic who had lost contracts over his drinking. The staff photographer, J. B. Forbes, assistant director of graphics/photography, was not consulted about the manipulation to remove the soft drink can and he noticed it only after publication. In an ironic note, writes Callahan (1993), "Adding to the symbolic quality of the struggle, the

subject of the picture had just won the Pulitzer Prize for photography."

This incident illustrates that even those who have editorial knowledge and an awareness of ethical guidelines can be tempted to use the technology to create a "better" picture. In the above example, the person responsible for the manipulation was supposedly aware that content manipulation should not occur and yet he did it anyway. In an interview with Robin Hughes (1990), editor of *FineLine*, Holt said:

I never even thought about there being anything wrong until I went home and told my daughter what I had done. She said, 'Oh no! That's exactly what you're always telling other people that they shouldn't do. (February, p. 5)

It is important to recognize that the potential for manipulation with digital technology lies in every aspect of production: from the photographer who takes the image to the computer expert who wants to enhance the image for publication. Whether the manipulation is generated by production personnel with a different mandate or editorial personnel who should know better, the key issue here is that the organizational structure of the news organization with regard to photo production may actually be an inducement to manipulation rather than a control. As a result, the publication of manipulated photographs presented as reality is increasing in frequency.

This chapter has focused on the potential for manipulation by production personnel rather than by the photojournalists themselves. The primary reason for this focus is that most cases of content manipulation appear to occur after a photograph is submitted for publication. Often, the

manipulation occurs without the consent of the photographer. Note that in all previous examples the manipulation occurred in-house -- after a negative image was submitted by the photographer. While it is true that photojournalists who are competent at using digital technology have equal opportunity to manipulate their own photographs and then submit them for publication without notifying the news organization, it seems that based on the number of reported cases this type of deception does not occur with any significant frequency. Most often the manipulations that occur are those that are done by the news organization after the photograph is received from the photojournalist. However, it must be understood that controls on photojournalists alone will not be effective if the production personnel can change the end result and manipulate the published product.

A final aspect of digitization which has changed the venue of photojournalism is that the negative image which was considered to be the ultimate "proof" of reality is no longer necessary. In chemical technology, a negative is the proof of validity with regard to any question of tampering with the original. Now, however, negative images are becoming obsolete. Photojournalists are now turning to digital cameras so that they no longer produce negatives. Many of the manipulations mentioned previously were done with a digital image of a chemical-based photograph. Now, no concrete image will exist outside the binary world which could be used as "proof" of original untouched images. Still video cameras such as the Apple QuickTake 100 Digital Camera enable one to create brilliant 24-bit colour or sharp black and white colour photographs.

It costs \$749 and advertisements promise one can "point, shoot, plug it into your computer, and presto" -- a digital photograph. It uses no film, it takes no time to process and it weighs one pound. This type of camera, which eliminates the need for film completely, can be connected by modem to the production centre of a newspaper. The photographer captures the images, and without developing or even producing a hardcopy of these images, they can be fed back directly to production. While Quicktake is shaped like a binocular and offers limited photographic capabilities, others, which cost as much as \$20,000 offer a Nikon F3 camera body and standard lenses coupled with a Kodak-produced digital imaging back. Known as the Kodak Professional Digital Camera System (DCS), this camera was launched in 1992 and offers the same potential as chemical-based cameras to capture quality images (same lens, aperture speeds, metering and shuttering) but with digital technology.

In 1988, the Associated Press covered the Democratic and Republican parties' national conventions and summer Olympic Games from Seoul without producing a single photographic print for transmission (Becker, 1991). "In this way, photographs can be as contemporary as television" (Nathan, 1992, p. 43). While newspapers cannot compete with television regarding the timeliness of broadcasting images, future media products which are available online will be able to utilize these images and offer constant updates on news events.

However, a number of local newspapers which use digital technology for newspaper production are hesitant to switch to digital still cameras.

John Aryiss, in his column *Camera Angles*, reports that photo editor Hugh Wesley of the *Toronto Sun* newsroom is hesitant to see his department switch to digital still cameras (p. 13). Wesley said that the *Sun*

...concluded that digital cameras are still about a generation and a half away from being affordable and reliable substitutes for our present cameras. Although the new digital cameras obviously will beat film deadline situations and their image quality is acceptable (in good light where the image is not blown up too big), there are several concerns that have yet to be addressed. (p. 13)

Wesley attributed his concerns to a lack of a digital archival system, the benefit of waiting until the costs of cameras decrease in the future, and the need for a backup system for street photographers. Photo editor Dennis Robinson of the *Globe and Mail* agrees with Wesley. Robinson attributes his hesitation to "the quality and resolution of the current crop of digital cameras coupled with the relatively high costs compared to film cameras." These factors, said Robinson, makes it impractical, in his opinion, to make a major change at this time. While these papers are hesitant to embrace the digital camera, the *Vancouver Province* has implemented digital still photography and reports that they are satisfied with the quality.

While there are still a few hesitations over completely digitizing photography, it is clear that photojournalism will eventually become fully digitized, with photojournalists using still video cameras to transmit digital messages back to production. Unfortunately, as the process is digitized, it becomes clear that the autonomy of photojournalists over their product is swiftly being eroded. These changes in process due to digitization remove photojournalism even farther from retaining similar aspects of credibility

and informative value as print journalism, and make it something less: less credible, less interesting and less newsworthy. As a result of these changes in process, the quality of the news product is negatively affected. With power over photographs being relegated to computer technicians and non-journalists, many photographs have been manipulated beyond acceptable standards to the dismay of both photojournalists and viewing public. The concrete effects of digitization on the product are discussed in detail in Chapter three.

CHAPTER THREE

Digital Manipulation and Deception: Agents of Change

Deceivers are the most dangerous members of society.--They trifle with the best affections of our nature, and violate the most sacred obligations.--

George Crabbe, 1754-1832.

Digitization and the ability to seamlessly create visual reality has the potential to destroy the credibility of photojournalism. The basic premise to photojournalism is that generally photographs are accurate representations of reality. The accuracy of these images is justified by common traditional processes devised and followed by mainstream photojournalists. These processes facilitate a symbiotic relationship between photojournalism and mainstream print journalism because the fundamental doctrine of both is each has a responsibility to be truthful -- to represent facts accurately and factually.

Photojournalism differs from other media in that it utilizes a distinct methodology of reporting that is automatically considered to be credible by the reader. While there are no studies which provide empirical evidence of this reaction, it seems clearly established when one considers the historical significance of the public reaction to documentary photography. Whereas print journalism generally depends upon the credibility of author, writing style and publication to endow itself with credibility for its readers, photojournalism has the benefit of making an automatic claim to factual presentation of information by its very nature of format: its images are

considered to be a proof of fact. This distinction led to the development of a social structure specific to photojournalism which guides and maintains "appropriate" journalistic behaviour. This social structure works in tandem with the very nature of photography (photographs capture only one aspect of time in an event that may continue for hours or days and the image content requires a certain socio-cultural perspective for interpretation); as a result, the general public believes photographs are an objective conduit of credible visual information. Documentary photographs epitomize objective reporting; they automatically provide qualities which print journalists can only aspire to including factual reportage, clear and objective description of participants and news events, and a verifiable record of "truth" (Becker, 1991). These qualities enable the viewer to reconstruct a visual reality of a complete news event from a few well-chosen photographs.

A repercussion of the trust vested in photojournalism is an emphasis on the responsibility of photojournalists to use credible means to gather and disseminate news images. If they fail to do so and the credibility of news photographs is destroyed, the very nature of photojournalism's product is contaminated and destroyed. Without a quality product to accompany print journalism, photojournalism will lose its role as the supplier of credible visual news imagery for newspapers and magazines. Many critics believe that since digitization has become such a significant factor in journalism, especially in the production processes of the larger, mainstream daily newspapers in North America, the credibility of news photographs is

constantly being challenged (Alabiso, 1990; Becker, 1991; Callahan, 1993; Davis, 1991; Davis, 1992; Dodd, 1990; Fancher, 1993).

However, the coherent social structure inherent within journalism prohibits photojournalists from effectively adapting their ethical guidelines to changes effected by digital technology. The original social structure was devised and constructed within the limitations of the original chemical technology. Now that those limitations have been removed by digital technology, photojournalists and news organizations must find some way to replace those limitations or the ethical guidelines and work strategies they follow become those without guidance or parameters. Conformity to established practices and ethical and moral guidelines is no longer an effective process to guarantee credibility of news information; the traditional system hampers adaptation to new techniques and strategies available through digital technology. Consequently, the interplay between changes rendered by digital technology and journalism's social structure threatens the future of credible visual media in journalism. It is no surprise then, that the effect of digitization is a major concern to photojournalists, journalists, media critics and, perhaps most important, the news consumer. Public attribution of credibility to documentary photograph is a tangible quality, and has occurred since the early 1800s. It is this quality which is important to this thesis since it affects both the gatherers and disseminators of journalism, as well as news consumers.

The unique and automatic status of credibility generally attributed to news photographs can be traced to several historical developments.

Primarily, the quality of the reproduction of reality in even the earliest photographs was sufficient for the public to consider photographs a "true" and objective instrument for capturing true-to-life images. The public viewed photography as a "truthful way of freezing and recording a moment in time," writes photography critic Fred Davis (1992). "Light falling on sensitive chemicals seemed to etch reality onto paper" (p. 126).

In addition to the credible visual nature of photographs, the theoretical debate over the proper realm in which to classify photography (art or science) raised awareness among photographers of processes developed by photographers to control subjective interpretation. Additionally, legal attitudes in North America grew from this cornucopia of opinion to become legislation which views photographs as either works of art or proof of truth. This legislation also serves to conclusively grant credibility to certain styles of photography including police, court and documentary photography (Cavallo, 1978; *Indiana Law Review*, 1986; Davis, 1991). Finally, the public's devoted use of snapshots to visually chronicle life events augments the sense that photographs capture only the image before the lens; most amateur birthday and wedding snapshots simply, or with little distortion, portray characteristics of the image before the camera.

Photography is pervasive in the average North American's lifestyle; in 1984 sales of complex point-and-shoot 35 mm cameras peaked at 2.6 million units, while simpler units peaked at 12.3 million (Callahan, 1993). These statistics show that most consumers, a ratio of 6:1, are accustomed to

a point-and-shoot philosophy. The amateur photographer points the camera at an image and shoots the picture. The film is developed by paid professionals and so the average North American has little interaction with the developing process or any techniques which might manipulate the original image. These photographs may appear amateurish and are used to document one's personal life events. Usually, when a formal, stylized photograph for events such as weddings or graduations are wanted, professional photographers are employed.

Professional news photographs generally exhibit different qualities and better pictures than those achieved by this simple technique; however, many amateurs believe the technology used by professionals is similar, although more complex, to their own. As a result, there is little differentiation in the public mind between what is produced by amateurs and professionals; rather, the difference often lies in style and context, or how the photographs portray their content. This differentiation is important because, as will be explained later, it determines manipulative techniques acceptable to photojournalists.

These factors have combined to create a common belief that what is portrayed by a photograph existed at the time when the picture was taken. Documentary photography (Taft, 1964), war photography (Taylor, 1991), and even everyday news photos found in the dailies depend upon an element of trust (Tausk, 1976) -- the pictures portray an image that is as close to reality as possible. "There is always a presumption that something exists or did exist, which is like what's in the picture," writes Susan Sontag (1977),

photography critic and researcher in her book, *On Photography* (p. 5). If, in a daily mainstream newspaper, one sees a photograph with a caption describing it as that of a Kurdish infant wailing as she receives an injection with a hypodermic syringe, one assumes that at some point in time, this image existed in reality. (Morse, 1992) This assumption is so common in North American culture that the inherent perceptual distortion within photographs is no longer even considered (Goldberg, 1988).

In light of this investment of truth, manipulation of this reality is seen to be unforgivable. Manipulation is defined as the act of giving false appearance to, or to turn to one's own purpose (Kirkpatrick, 1985). Manipulating or changing the content of photographs in any way changes the visual reality of a situation as it is perceived by the viewer (Chapnick, 1983). Manipulating photographic content compromises data which compromises the sociological base of photojournalism (Davis, 1991, Gordon, 1979). "To alter a documentary photo," writes Mark Loundy of the National Press Photographer's Association, "is to lie. The moment we [photojournalists] choose to record is sacrosanct. We as photographers have no right to alter it ..." ⁶ When the reader is prepared to interpret the news photograph as a representation of reality, manipulations that alter the factual record constitute a fabrication of information. Fabrication has no place in quality journalism and, as a recent North American jury ruled

6. The National Press Photographers Association is an educational organization dedicated to the advancement of photojournalism. Membership is open to all still and video photojournalists or others whose occupation has a direct professional relationship with photojournalism.

in Janet Macdonald's case, it is not tolerated (June 4, 1993).⁷ It is not tolerated in the printed word and it is equally intolerable in the photographic community.

For decades, especially after the initial establishment of documentary styles, documentary photographers and photojournalists were careful to follow traditional processes to guarantee credibility and informative value. When deceptive images were portrayed as documentary, they elicited criticism and rejection. This rejection was such a universal response, it moulded acceptable limits for manipulation in chemical photography; Roger Fenton's Crimean war photographs, Robert Capa's joke that he posed his famous war photograph (Cockburn, 1975; Friedman, 1975), and Alexander Gardner's posed photographs of a dead soldier all elicited widespread public criticism and disappointment (Newhall, 1964). In 1863, Alexander Gardner, a famous Civil War photographer who published a two-volume folio entitled *Photographic Sketch Book of the War*, used the body of Private Andrew Hoge, 18, to produce two completely different images (Lester, 1991; Newhall, 1964). In what must have been a grisly process, Gardner photographed Hoge's corpse in its Confederate uniform and titled the image "Home of a Rebel Sharpshooter, Gettysburg, July 1863". Then he moved Hoge's body, hat, rifle and leather case, and rephotographed him to produce the image "A Sharpshooter's Last Sleep, Gettysburg, July 1863"

7. After a month-long trial, a jury found writer Janet Malcolm guilty of defaming psychoanalyst Jeffrey Masson. The jury found that Malcolm made up or materially altered five quotations from Mr. Masson. The jury concluded two were defamatory, and Malcolm acted with reckless disregard for the truth.

(Lester, 1991, p. 96).

This manipulation was severely criticized; people were scandalized at this act of deception by a photographer whom they trusted. Beaumont Newhall (1964) writes that viewers were outraged because they had been deceived into believing: "[t]his man lived; this is the spot where he fell; this is how he looked in death" (p. 61). Viewers understood the threat posed by this type of manipulation since it interfered with the visual element of the production of knowledge. These photographs misinformed and deceived viewers and were, therefore, deemed unacceptable.

Negative public reaction served as a control for the practices of early photographers. Photographs were sold to publishers for resale and general distribution to the public, and those that were identified with manipulated contents were emphatically rejected and not purchased. Public demand was so influential that the work of pictorial photographers such as Henry Peach Robinson and Oscar G. Reijlander who specialized in manipulated photographs never became profitable since it was condemned for its artificiality (Newhall, 1964). Reijlander became so discouraged by the public's condemnation of any photography that did not meet with the tenets of realism, he wrote the following in a letter to Robinson:

I am tired of Photography for the public, particularly composite photos, for there can be no gain and there is no honour but cavil and misrepresentation. The next Exhibition must, then, only contain ivied ruins and landscapes forever besides portraits -- and then stop. (Newhall, 1964, p. 61)

While these examples of manipulations involve fairly drastic

techniques even slight changes or alterations of content can be extremely deceptive; changing subtle nuances or emphasizing certain characteristics can create an image that is entirely different from what actually existed before the lens. In *An Introduction to Press Photography* (1976), Petr Tausk writes:

The misuse of confidence in photography and its truth value need not, however, assume a drastic form. Correct photographic information should portray reality in its typical aspects. A photographer deliberately picking out exceptional features of reality and presenting them in a way that creates a fraudulent impression of unvarnished truth is in actual fact offering a fraudulent document. (p. 21)

Tausk emphasizes that photographs can easily become biased through only subtle manipulations of the image. Bias, or the phenomenon where an article or photograph is oriented to a special influence, is a phenomena that was prevalent in journalism for many years in North America when early newspapers were openly partisan. Now, with the influence of social science on journalism, overt bias is generally avoided in the mainstream press through conscious efforts of scrupulous journalists who endeavour to retain an air of fairness and balance, if not objectivity. At its basest, this is usually achieved by documenting at least two sides of an issue (Schiller, 1981).

In photojournalism, objectivity is achieved by portraying photographic images without particular emphasis or changes to content to favour a particular view (Baynes, 1971). In accordance with Tausk's thesis, it is not the extent of the manipulation which can bias a photograph, rather

it is the effect of the manipulation on the content, or what is portrayed in the photograph. Photographic content constitutes the fact record of the photograph; even the subtlest manipulation of this element can destroy its informative value and contravenes the very purpose of journalism. The content of a photograph then, is closely tied to its credibility.

In an impassioned letter to the editors of *Time* after it published a manipulated image of O. J. Simpson's mugshot in its June 21, 1994, issue, Joe Travers, NPPA President (1994) explains this phenomenon further.

We have a personal obligation to be truthful with our fellow citizens; it is our charter as journalists; it is what the First Amendment protects. Good paintings, good photo illustrations, good written fiction all have value. Great art comes from the soul of the artist and touches the soul of the viewer and this is one of the few things that make us human. Great documentary photos derive their power not from their form but from their content, not from the photographs themselves but from the reality they show us. Good photo illustrations can inform readers but they will never have the power of reality and will never move people like documentary photos; TIME magazine's O. J. Simpson cover (June 21) is an abomination to the impact of the original truthful looking photo. Our profession allows all who see our work to see history. Words have told us the stories of history for centuries but now all mankind can actually see history; see what happens in war, in government and even in the small towns where they live.

No one has the right to play fast and loose with facts, that no one has the right to change history, that no one has the right to lie. To alter a documentary photo once it has been made, is to lie. The moment in time we choose to record is sacrosanct. We as photographers have no right to alter it and, by God, no editor has the right to change it in a computer.

The news photograph deserves the same respect as the news story. If a photo looks real and is used in a context where the viewer expects to see real photos, then the photo better be real. Readers expect the front page of a reputable magazine to present them with real photos that fairly and accurately report

what happened. If there is an illustration, it had better look like one. Anything less damages the credibility of all publications and once our credibility is destroyed, it can never be regained.

When truth is compromised the power of journalism is destroyed.

Therefore, the truth of news photographs must be protected in a manner that enables photojournalists to produce a product which informs the public and yet is also effective enough, in a sociological sense, to inspire social reform or, at least, to raise social awareness.

In his letter, Travers separates photographic content from style (he calls it form) and he recognises that the power of news photographs stems from credible content. Style is necessary to portray information well, but in a news photograph it is secondary to content. To facilitate this division between power and style, processes for gathering and disseminating news photographs were designed and followed by credible new photographers and organizations. These processes work to control the photographer's subjective interference with the original news image. This does not mean, however, that the influence of the photographer on the original photograph is entirely controlled and that subjective interference is eliminated. Rather, the constant pressure from possible subjective interference by the photographer and the fact that the photograph can be influenced by a myriad of other factors puts tremendous emphasis on the selection and utilization of various techniques used to capture the image. News photography at its best can claim to be objective, and yet much depends upon which aspects of the event are selected for the original photograph

and how that photograph is portrayed for these determine the view of the event disseminated to the public (Novak, 1992; Rothstein, 1962).

For example, Larry Agran, a former candidate for Democratic presidential nomination, was excluded from media coverage of a candidates debate by photo editors who digitally removed him from an Associated Press photo that pictured him talking with candidates Tom Harkin, Paul Tsongas and Bill Clinton (Novak, 1992). Agran blames his poor electoral showing on his exclusion from certain events by selective media coverage. In this case, the media defended itself with the argument that coverage of the early debates could not be extended to all candidates as there were "too many." Further, argued one editor, Agran was not officially recognized by his own party, therefore a decision was made not to devote media time to his views (Novak, 1992). As a result, it appeared as if Agran was not running in the campaign, deceiving voters with the act of omitting the views of a viable candidate.

In addition to initial selection processes, content is also affected by the caption, the presentation, the layout, and the location of the photograph within the newspaper's sections (Ruby, 1976). Each has a subtle effect on how the content of a photograph is perceived, and whether content is valued more than style or vice versa. A sports photograph, for example, has more informative value when portrayed in a sports section or on the front page than the same image in an advertisement or even in a feature where photographic style often outweighs the merits of content. The same differentiation is applied to the importance of manipulations. Each section

of the newspaper has a different mandate for news production and the public recognises these differences. Shiela Reaves (1990) found that editors admit to approaching manipulation differently, depending upon where the photograph would be presented. Reaves concluded:

Although the 13 editors said they would not significantly change news photos, they appeared to accept a notion that feature pictures were, in general, lower on the photo hierarchy and therefore more prone to manipulation. (p. 26)

In addition to picture placement within the newspaper or magazine, even the wording of a caption explaining the photograph can have tremendous influence on viewer perception. These must be accurate, simply worded and closely related to the photographic content. During the layout of a news photograph for a story in *Centretown News*, (a community newspaper published by Carleton University's School of Journalism and Communication as a field course), a caption written by a layout editor who did not consult with the photographer completely changed the reality of the photograph. The photographer had photographed a street that residents said would become a haven for prostitutes if police moved them from their regular haunt. The photograph portrays two women walking along a well-housed street. The photographer intended to portray a familial attitude, tranquility and peacefulness, with the implication that this street was an area with a low crime rate. The layout editor, however, believed the photograph portrayed two prostitutes and labelled it as such with a cutline. This was not only misleading, but defamatory. (The error was caught before publication).

The reality of the event, then, is obfuscated by diffusion as it passes through the gatekeepers of information. Despite the appearance of automatically portraying accurate news, photojournalists can only construct the reality of visual news (Tuchman, 1978). When seen in this light, the construction (rather than the preferred but misleading term "capturing") of a news image using photographic technology means that there are many factors and techniques which enable photojournalists to manipulate an image both before and after the photograph is taken, many of which cannot be controlled by the photojournalist. Sometimes, the manipulation is intended to clarify the meaning and imagery of a news photograph, often, however, it is meant to "save" a photograph which lacks some characteristic necessary to make the photo more valuable. In other words, certain attributes are absent in the original photograph and manipulation is considered necessary to "fix it" after the fact.

The potential for manipulative factors to affect news imagery has been carefully integrated into the framework which encompasses the general norms or accepted standards of behaviour for photojournalists to ensure these factors are controlled. Throughout the development of documentary photography as a credible, informative style of photography proponents were careful to establish that photographs of this nature must be produced according to strict methodologies. This meant constructing the image solely by the photographer's talent with the camera and precluded the manipulation of an image before or after the photograph was taken. Later, as technological changes occurred, this methodology changed as the

rule regarding pristine photography was blurred.

Rather than a general rule of zero tolerance, a system of rules developed over the last 50 years regarding which aspects of photographic manipulation were acceptable and which weren't. This system was incorporated into the social structure of journalism and applied to both photojournalists and news organizations.

Manipulation -- Not Deception

From this decision "tree" (see Figure 1), it is evident there are two theoretical categories of manipulation in photojournalism of major concern to its practitioners: manipulation of style and manipulation of content. When one approaches a news photograph with the idea of applying manipulative techniques, a practiced photojournalist or photo editor intuitively asks: Does this manipulation affect elements of content or style? This differentiation is crucial because manipulation is not necessarily deception; "Don't deceive!" means something different from "Do not manipulate," explains Deni Elliot (1991), director of the Dartmouth College Ethics Institute (p. 2). By separating manipulation of style from content one can differentiate between manipulation and deception; changing or manipulating elements of style qualifies as a manipulation while changing elements of content constitutes deception.

Content manipulation is unacceptable in quality journalism, especially when it is undetectable to the viewer. The most common techniques for content manipulation are staging or posing of news photographs which adds or subtracts imagery. When this type of photograph is portrayed as a candid or spontaneous image the viewer can be completely deceived. This deception is unacceptable to most quality news organizations and avoided by photographers and photojournalists.

"A set-up should look set up," John Cornell (1987), NPPA vice-president and staff photographer at *Newsday*, told a discussion group. "It's when you set up a picture that purports to be candid..." that a content

manipulation occurs (p. 39). The following details two cases in which news organizations dealt with two different incidents where the credibility of news photographs were called into question. In coming to a conclusion, editors at the respective magazine and newspaper first decided whether content or style was manipulated. Then, the focus moved to whether the image was enhanced or altered by the technique. W. Eugene Smith (1972) photographed a girl with severe birth defects. The birth defects were apparently caused by mercury poisoning which originated from waste products discharged by a local factory in Japan. The photograph captured the girl's image as she was being bathed by her mother -- the girl was so disabled the mother would wash her in the village bath house and would have to get in the bath with her to hold her head above water (Smith, 1972, p. 118). Smith lived in the village and knew the girl was bathed by her mother every evening at a certain time. For this particular photograph, he asked the mother to get in the bath earlier in the day when the light was better. The extent of this subjective interference made some viewers question the credibility of the photograph because Smith caused the event to occur at a different time of day to get the best light.

Bill Ostendorf, graphics editor, *The Plain Dealer Cleveland*, is a purist when it comes to manipulation of any kind. An editorial column by Ostendorf discussed the decisions generated by this and similar cases and concluded that, in his opinion, Smith manipulated content by altering the temporal contents of the photograph. "I may be in the minority," he wrote, "but I don't think photojournalists have any business manipulating events

in an effort to get a better visual -- even in small ways."

Under the purists' rule this manipulation would disqualify Smith's photograph from news photography because he staged the event at a convenient time. Within the general decision process, however, it was considered acceptable since this was a regularly recurring incident. "I've heard many argue that as long as it is a 'true' reenactment of something you saw and not something you just made up, it's okay," Ostendorf acknowledges. This manipulation was deemed to be an enhancement of an event to compensate for lighting difficulties and, as a result, this photograph was accepted as a portrayal of reality and published by *Life* magazine (Lester, 1991).

In contrast, Norman Zeisloft was fired after 17 years as a photographer for the *St. Petersburg Times* because he asked his subject to write the slogan "Yeah Eckerd" (a sports slogan) on the bottom of his feet for a photograph (Lester, 1991). Zeisloft did not inform his editors that he staged this scene; he made it appear as if he had obtained a candid photograph (*News Photographer*, 1981). The subject told his colleagues and others that he wrote the slogan on his feet at the request of Zeisloft, and this eventually came to the attention of the photo editors who were outraged at the deception and they fired Zeisloft. The difference between the subjective interference by Smith and Zeisloft is that the latter convinced the subject to carry out the action. In doing so he manipulated content and deceived viewers by altering reality completely -- and then he portrayed it as a candid image.

What Zeisloft did is rare, especially by an experienced photojournalist who would have been well aware of the potential consequences of his action. Most day-to-day decisions concerning manipulation generally encompass attempts to enhance photographic style and presentation. Such extreme techniques as posing or staging a photograph may be easily avoided, but the more common techniques used to "clean" up an image confront editors and photojournalists regularly. While this aspect may appear to be more innocuous than content manipulation it still has serious repercussions for photographic credibility.

Manipulation of style elements can be summarized as any technique that is used to enhance the image of the photograph but does not affect its inherent meaning or interfere with its value as an informative news image. Style manipulations such as cropping (cutting the photograph), burning and dodging (chemically lightening and darkening during development), creative use of lens, and colour enhancement are often deemed acceptable.

Consider Paul Watson's Pulitzer Prize winning photograph of an American soldier being dragged by Somali warriors through the streets of Mogadishu (1993). The original photograph portrays a semi-clad soldier with his genitals exposed. Many newspapers and magazines altered the photograph for publication so that the genitals were not visible. They justified this by arguing that the manipulation was necessary to protect the relatives from additional torment and embarrassment. Similarly, Shiela Reaves (1991) details a photograph where a youth who had just completed a

record-breaking solo flight was photographed with his zipper undone. In a survey of photo editors Reaves discovered that while most would not, 29 per cent would have agreed to alter the image so that this was not evident to viewers. With a view to protecting photo subjects, Henry M. Keezing, executive editor of *The Herald* in New Britain, Conn., justifies cloning in some circumstances. In an interview with Nancy Davis for *Presstime* (February, 1992) Keezing recalled two photographs which prompted him to manipulate images in a photograph; one where a child had an open zipper, another where the subject's underwear was exposed.

"Is that tampering?" Keezing asks. "I don't think so. That's old fashion enhancing that did nothing to change the nature of the pictures. It spared the children from embarrassment." (p. 23)

In these examples, editors altered the image by changing a minor aspect of the image. According to the findings in Reaves's study, it appears that only a minority of editors would argue that content was not affected to a great extent because neither the soldier's genitals nor the lowered zipper affected the informative value of the photograph. The majority, however, would argue that the exposed genitals added to the horror of the scene and that perhaps it is also interesting that a boy who could achieve a record solo flight could also forget his to zip his zipper. The percentage of editors who accept these manipulations illustrate the move from a purely pristine methodology of photography to one that allows other aspects to interfere with the mandate of publishing views of reality.

The ethical debate generated by this aspect of manipulation is divided

into those who advocate the portrayal of reality with all its warts and unpleasantness (the present majority) versus those who advocate tempering reality to protect certain societal values such as privacy. The pristine view is most beneficial to the protection of credibility and yet, as many would argue, the role of the journalist is to inform with relevance. Irrelevant and potentially hurtful aspects of journalism may be removed if they don't affect the fact record. What is also interesting to note is that the findings in Reaves study indicate that photomanipulations of content should be rare, not increasing in occurrence. Further, where manipulations occur they should rarely be the result of photoeditors. Since the number of photomanipulations that are exposed is increasing, there is obviously a dissonance between the study and reality. Perhaps this is because the photoeditors apply traditional ethical principles and reject manipulations which temper reality in a theoretical sense. However, when confronted with the technology in a practical sense, manipulations do occur for a number of reasons.

Stylistic elements are generally altered or enhanced to produce clearer pictures or to reduce the influence of certain visual aspects within the photograph. In comparison with print journalism, this is the equivalent of cleaning up the grammar in quotations and selecting remarks to use as quotes in the story. Anything that doesn't distort reality, writes Elliot, can be removed or altered. While the previous examples were of photographs where the alterations weren't evident to the viewer without the original image for comparison, some newspapers and magazines take

care to describe which elements have been affected by manipulation.

This edict was followed in the *Life* magazine special issue in 1976, where two news pictures were fused to show an assassination attempt in San Francisco on President Gerald Ford (Reaves, 1987). One photograph had the president in clear view, the second had the assassin in the bottom right corner. "Since little else moved in that fraction of a second," wrote the magazine's editors, "the two photographs make a perfect fit" (Reaves, 1987, p. 26). *Life* magazine justified the cutting and pasting of these news photographs in a detailed explanation on its content page. The editors wrote that since the manipulation clarified the image without fabricating content it was acceptable to publish this cosmograph as a news photograph, accompanied by an explanation. Within the model in figure 1, the manipulation qualified as an enhancement of style, rather than an alteration of content and *Life* felt justified publishing it with an explanation. This approach was believed to be more acceptable than pretending the image was a candid photograph, which would have seriously threatened the credibility of the magazine had it become known.

Although this model simplifies some of the processes followed by photojournalists, it does not in any way encompass all decision processes, nor does it provide a dependable template for the layperson. It is difficult to formulate absolute rules regarding the usage of these techniques since some may simultaneously influence both the content and the style of a photograph depending upon their use; a technique may be correct in one instance and incorrect in another. This has made it difficult for those

outside the practice of journalism to judge if decisions regarding proper use of manipulative techniques is acceptable. This lack of concrete guidance is one reason why photographs are so susceptible to manipulation that deceives and diminishes their credible value: those who are not familiar with the tradition have no formal guidelines. The following example illustrates how one manipulative technique can affect style or content, depending upon the original photograph.

The nebulousness of this procedure is evident when one takes a manipulation technique and explores its ability to affect both style and content. For example, cropping a photograph, where extraneous aspects along the periphery are physically cut out, is often used to focus the viewer's attention on the most important aspect of the image or, more simply, to make a photograph fit into an allocated space. Cropping is an act of omission rather than deception, and a reader may be left to wonder what aspect of the photograph was eliminated. When trust exists between reader and journalist, the assumption is that the omitted information had no relevance to the news image.

If, for example, an image is surrounded by distracting objects, the photographer or editor can crop the photograph leaving the subject as the focal image. This action simply omits the distracting objects; the photograph changes from jumbled to focused. If the objects in the photograph are necessary to the content, however, the cropping of this aspect of the image may affect the content and informative value of the photograph. At this point, cropping becomes a deceptive technique; it no

longer qualifies as an omission of information since it is purposely deceitful. In a photograph published by many newspapers, an intra-venous drip into the arm of U. S. President Reagan was cropped from a photograph to make it appear that he was quickly recovering from an assassination attempt. The White House photographer intended to deceive the public; the cropped photograph implied that Reagan was in better physical condition than he actually was since viewers were led to believe he no longer needed intra-venous support (Alter, 1990). The photographer altered the informative value of the photograph and rendered it manipulative and deceitful.

While the capacity to manipulate photographs in chemical photography is almost boundless, it is restrained by the need for an image to exist before the camera to become part of a photograph. This restriction is imposed because in chemical photography the signifier always resembles the signified. For example, a photographer cannot create a photographic image of something that does not exist and, conversely, all photographs resemble the original photographed image. The repercussion of this restraint means that images of people can be added or subtracted from a photograph, but it is a time-consuming process and the manipulations are usually identifiable. For example, the intra-venous could not be easily added to the White House photograph of Ronald Reagan without looking faked. Similarly, one could try to create a cosmograph or compilation of two photographic negatives to achieve this type of manipulation, but even this method is still easy to visually identify by looking at the negative (Reaves,

1987, p. 26).

Digital Technology

Generally, after-the-fact manipulative techniques in chemical photography are difficult to accomplish and are fairly easy to detect. This is the key difference between chemical and digital technology. Digital technology enables the facile creation of any image in a seamless and unidentifiable manner; images of people can be completely fabricated without being obvious and are easy and quick to achieve. Shadows can be corrected, sizes matched to scale, colors and objects cloned to match perfectly, people added. This is the disquieting difference of digital retouching (Reaves, 1987).

In addition, digitization is not restricted to a photographer who has years of experience with chemical development and the workings of a camera; it can be done by anyone with access to a personal computer and appropriate software. A personal computer can easily become a tool to completely change the nature of a photograph. Without any prior experience with the software, this author created a composite photograph in three hours using a Macintosh computer and Adobe Photoshop software. The software is easy to learn, user-friendly, and relatively inexpensive at \$275. In this composite (see figure 2), the third figure from the right does not fit in with the others; he was digitally moved from one picture into this composite of two. A comparison to the original photographs shows the changes made to place him into a cafe atmosphere rather than his original place behind his desk: a bottle was cloned and placed in front of him; light was airbrushed on his head and shoulder to eliminate fluorescent-lighting

effects and to simulate sunshine; and the figure was decreased by eight per cent to make him the same size as other people.

The original photograph was scanned into the computer at 300 dots per inch (DPI), and after various manipulations and its transformation to a photocopy, the image was reduced to about 150 to 200 DPI. Further, this image can be downloaded to slide, print or negative format so that the manipulated image appears to be an original.

The potential abuse of this new phenomena threatens the credibility of photojournalism and its very nature as a medium of journalism. Clare Ansberry, staff reporter for *The Wall Street Journal*, reports that according to the Rochester Institute of Technology, "one of 10 color reproductions has been altered -- meaning something has been added, deleted or moved. That percentage," writes Ansberry, "promises to grow with the proliferation of equipment to take and store pictures electronically" (Ansberry, 1989).

Previously, limits set by photojournalists were able to compensate for and were restricted by the close relationship between signifier and signified. Decisions regarding manipulation involved knowledge and expertise in the various techniques, an understanding of the general effects achieved by these techniques and skill in utilizing them. Usually those with the above were also educated about the ethical guidelines tied to these techniques. Now, however, the talent of a photographer to capture an image at exactly the right time is replaced by the talent of a graphic artist who can wield a mouse and keyboard. The differentiation between the enhancement and alteration of reality so important in chemical technology

no longer applies; the relationship between photographs and reality is now completely arbitrary.

What makes this computer-based technology so devastating to the credibility of news photography is that even its most extreme creations cannot be detected. This means that it is simple to create photographs which deceive the public; the manipulation by *Time* magazine (June 21, 1994) of O.J. Simpson's mugshot took minutes to achieve. Aside from the perspective that mugshots have one of the highest assignments of credibility (Poultney, 1971), the alterations in the published photograph would have been undetectable if *Newsweek* had not simultaneously published the original mugshot. Readers compared the two and realized the artistic liberty taken by *Time* and were outraged at the biased images and the magazine's audacity at portraying it as a credible, straight-on mugshot. A photography newsgroup on the Internet discussed this manipulation for weeks, and *Time* concedes it had numerous letters although the exact number has not been released. Digital manipulation is undetectable unless one has access to other similar photographs. Even then there is no way of guaranteeing that corresponding images were not also manipulated.

When *Time* was criticized for its blatant manipulation editors offered a formal apology to its readers saying they did not intend to imply guilt or create any racial implications. Explaining how Matt Mahurin's photo-illustration was chosen, *Time* managing editor James Gaines wrote in the July 4 issue: "I have looked at thousands of covers over the years and chosen hundreds. I have never been so wrong about how one would be

received."

One reader, Bill Carey, responded to the manipulation in an e-mail to the NPPA's discussion group on the Internet:

I realized how much they had changed the picture; how much they had changed what the photo said to me. The cover is a moody, spooky shot that has me wondering how many truly evil things this man has done. (If *Time* had dripped red from the cover letters to simulate blood, they couldn't have made it any more forbidding (sic)). The other shot is a guy being booked. It's a straight ahead mug shot of OJ. It's the real shot.

Carey's dismay at being misled is obvious. The magazine's manipulation of photographic content affected Carey's stereotype of O. J. Simpson: it influenced his perspective to become a presumption of guilt. The effect achieved by even this simple manipulation is heightened by Carey's comparison of the tainted image to the original straight-forward mugshot.

While it is tempting to focus only on the ease and capacity for digital manipulation, this new ability is not the sole culprit in the destruction of visual truth; rather, it is the propensity of news organizations and production personnel to abuse the technology. In his formal apology, Gaines did not apologize for publishing a photo-illustration of a news event, or for publishing a police photograph that had been manipulated, rather he lamented over the reception that cover received, and his inability to predict public outrage. Traditionally, photojournalists expended tremendous effort to establish the credibility of their photographs, but now, with new technology which enables the creation of fabulous images in every photograph, it seems that some newspapers and photojournalists are

willing to jeopardize that commitment to truth for impressive news photos. In a revision of historical tradition, photography is moving toward dramatic appeal and away from an appreciation of impressive photographic talent and informative value. The onus is no longer on the ability of the photographer to use personal skill and ability to capture one aspect of time in a news event to produce a timeless image with informative value. Now, perfection is valued: perfect content and perfect style. Informative value and credible authority are secondary and have less emphasis than the sketches performed by artists in Harry Coleman's time.

With respect to providing the public with the ability to visually know and be able to identify images never seen in person, the use of digitization and its ability to blend, change, or erase images in a news photograph causes the integrity of every photograph to be questioned. Consequently, geographical, spatial and temporal aspects of photographs may no longer be valid. Portraits of people long dead are now being revived and updated, scanned into the computer to clean up the image, to add or subtract certain personages, or to simply add colour.

Mother Jones committed all of the above by using digital manipulation to create a colour composite photograph of Eleanor Roosevelt and Hillary Clinton seated together.⁸ In a feature illustration which appears to be an unmanipulated photograph, Roosevelt's sleeve overlaps

⁸. Hillary & Eleanor. (Jan/Feb. 1993). *Mother Jones*. Digital Imaging by John Lund, based on photos by Hoda Bakhshandagi/Black Star (Hillary) and Bettman (Eleanor).

Clinton's which makes it appear as if they were photographed together. Without the knowledge that Roosevelt is dead, it is hard to believe this photograph is a created image. When one is aware of the capability of the new technology, one is prompted to examine the picture and wonder about its particular details: is this the true colour of Roosevelt's dress (probably not, since the original was in black & white) and then, more important, does this digitized photograph truly resemble Roosevelt or has the computer operator manipulated other features of her appearance?

The images in this photograph are no longer historical documents since their combination has created an image of an event that never happened. While it is doubtful that a reader will be confused into believing that Roosevelt and Clinton ever posed together, the problem is that it might eventually enter the realm of history in the future. There is no longer a guarantee that a photograph resembles the original image which once existed before the lens. Further, digital manipulations threaten the integrity of every other photograph; the photographic image is no longer time-specific, or the result of the momentary and privileged meeting of subject and photographer. Anyone can reach backward in time, repudiating the photographer's judgment, to "rephotograph" what originally existed (Ritchin, 1990). In an interview with Shiela Reaves, Steve Larson of *U.S. News & World Report* said:

The photo is the record of a moment in time. We're on shaky ground when we start changing that. We must maintain this pact. Catching a moment in time is history. I believe strongly that's where photography derives its power. (Reaves, 1990: p. 50)

With the ease that a photographer can reach backward in time, geographical space can also be manipulated. *National Geographic's* editor, Wilbur E. Garrett, decided to manipulate the pyramids at Giza for a cover photograph and, without identifying the digital changes for the public, manipulated a horizontal shot into a vertical and ran it as reality (Ritchin, 1990). If one considers that the public has trusted images in similar photographs and used them to effect social reform, solve crimes, and as guides for areas to emigrate to, one realizes the implications of digital manipulation when it creates unreal images which are portrayed as reality. According to traditional standards the content was not manipulated -- the two pyramids do exist, side-by-side at Giza. However, the alteration of this photograph's style, a seamless manipulation of spatial organization, creates an image which does not exist. Even worse, it diminishes the credibility of similar images because it enlightens the viewing public about the potential for deception. The casual adjustment of spatial relations for convenience simply because it is possible alerts viewers that photographs should not be considered automatically credible.

This spatial manipulation earned tremendous outrage from readers, scientists and journalists and resulted in hundreds of letters to the editors (Lester, 1990). Consequently, the magazine promised never to manipulate the contents of its photographs again, to retain credibility as a documentary medium in the public eye.

Some newspapers and magazines justify digitally manipulating

photographs depending on the context of where in the magazine or newspaper the photograph is published, writes M. Quigley in "What Sells, What Bombs: Magazine Cover Roulette" (1988). Some, such as the editors of *Texas Monthly*, justify the use of a manipulated photograph on the cover because, they say, a cover qualifies as advertising rather than editorial. Patti Richards, spokeswoman for Collins Publishers Inc. which published *A Day in the Life of America* is an advocate of this philosophy. Clare Ansberry, a journalist with *The Wall Street Journal*, interviewed Richards. Ansberry writes:

"The cover sells the book. You want people to stop and notice," Ms. Richards says, adding that pictures inside aren't altered. "I wouldn't say any of us feel particularly great about doing it, but it seems to be a technology others use." (Ansberry, 1989)

Richards justifies her actions based on the assumption that the readers understand subtle differentiations in standards for manipulation which differ according to placement within the publication. There is little doubt that most journalists understand the difference between a news story, an editorial, and an advertisement, although there is less evidence that this difference is understood by readers. Each of the above formats are differentiated by style, presentation and content. Placement is less of an indicator, although newspapers rarely put editorials on the front page, and when they do they are clearly marked.

The confusion regarding different news formats extends to the differing levels of credibility assigned by readers to photographs. There are even fewer indicators regarding the status of a photograph, and the very

knowledge that photographs are subject to varying degrees of manipulation contravenes the basic belief that most photographs in these publications, outside of advertisements, are intended to be credible, informative images. In a study to examine whether the public differentiates between the credibility of what appears to be a documentary photograph on a cover or as an accompaniment to a news story, Keith Kenney (1993) found that when magazine cover photos were compared with newspaper feature photos, the results were not consistent enough to report that one context was more credible than the other. "Apparently," concludes Kenney, "the content of the photographs had a greater effect on reader's perceptions of credibility than the context of the photographs." (p. 27)

With public perception oriented to content rather than context, the justification that manipulated photographs are differentiated from non-manipulated photographs depending upon location within the newspaper is misguided. Further, it appears that manipulated photographs found in any style of newspaper may actually have a negative effect on the perceived credibility of news photographs in general. Peter Dahlgren (1992) writes that the affiliation of photographs with tabloids seriously threatens the credibility of photographs within photojournalism. The blatant use of digitally manipulated photography in tabloids, he explains, "contests the claims of journalism to anchor itself in the rational domain and be something wholly distinct from entertainment" (Dahlgren & Sparks, 1992, p. 16).

Not everyone agrees with Dahlgren's conclusion; Cheryl Shoji, photo

assignment editor at the *Vancouver Sun*, and Neil Graham, managing editor at the *Vancouver Province*, believe their readers can differentiate between tabloid and quality mainstream photographs. Referring to the manipulated photograph of hockey player Alexander Mogilny, Shoji argues:

I think the manipulation which occurred in the *Province* was because even though it is a Southam paper it is a tabloid. Tabloid photos don't affect photos in a credible newspaper because people know its been blatantly manipulated even though it looks real. The type of read and type of stories indicate whether the photos will be credible. (August 22, 1995)

Graham agrees with Shoji. He argues that this theory does not recognize that the public can recognize the potential for photo manipulation.

When they [readers] see our photographers out in the community with all their electronic equipment they ask them if they will publish their photograph superimposed on Arnold Schwarzenegger's body. (August 22, 1995)

When asked if he believed the readers asked this of his photographers because they are aware the *Province* is willing to publish digitally manipulated photographs, Graham did not answer. What is interesting here is that those who practice within the field believe that the credibility of quality mainstream newspapers is unaffected by the publication of manipulated photographs. They appear to base this conclusion on a faulty and disputed belief (Kenney, 1993) that the public can differentiate between photographs on the basis of context of publication.

Dahlgren, however, bases his analysis on the social psychology of the reader: the investment of trust in photographs is based on the belief that

changes to photographs are usually to enhance style to better present content. When a viewer is informed that a photograph initially believed to be accurate is false, that viewer tends to feel foolish and deceived. The next photograph and consequent others are viewed with scepticism.

Karin Becker (1991) writes that in the serious press the photograph has become either marginalized or aestheticized and is not treated as a central part of the journalistic product. In the tabloid press, on the other hand, there is a much greater stress on photography. The functions of the photograph in the tabloid press, however, draw on a number of representational traditions and the issue of "truth value" constitutes only a part of these (Dahlgren & Sparks, 1992). Similarly, Susan Sontag (1977) writes the connection of photography with tabloids can be so influential, some papers such as *Le Monde*, "a newspaper designed for skilled, well-informed readers" refrain from using photographs at all due to their connection with sensationalistic media. "The presumption is that, for such readers, a photograph could only illustrate the analysis contained in an article" (p. 22). Therefore, the editors at *Le Monde* eliminated photographs from its publication. The propensity of photographs to be sensational was considered a taint on the analytical, business-oriented news contained within this publication.

Many photojournalists and news organizations realize the danger of allowing digital manipulation to affect the general credibility of news photographs and are emphatic about preventing this phenomena. In support of a mandate to reject digital manipulation of news photographs,

The National Press Photographers Association recently approved a policy that reads, "We believe it is wrong to alter the content of a photograph in any way that deceives the public." Similarly, an Associated Press Managing Editors report, "The Electronic Bombshell," begins, "This is supposed to be about electronic photo manipulation, but it's really about lying." It concludes, "The more we mess with pictures, the more we mess with our credibility" (Davis, 1992: p. 22).

In an article examining newspapers' reaction to digital manipulation, Nancy M. Davis (1992) writes:

So far, the most effective deterrent to photo manipulation appears to be another kind of embarrassment: the widespread peer pressure that follows each highly publicized incident. As Michael Martinez, deputy director of photography at *The Detroit News*, wrote in a recent trade publication, "The number of well-documented cases of deliberate manipulation arouse the ire of the journalistic community and, in most cases, the publications involved have taken steps to prevent such willful excesses from happening again." (p. 23)

On this same topic, Toby Massey, assistant chief of bureau for newsphotos, associated press, Washington D. C. writes:

Every time a picture is altered and published as a representation of what took place at an event, we should all scream at the top of our voices, "Foul." To do less is not being honest with ourselves, our profession, our readers. (p. 51)

This may sound reassuring, but in reality these edicts are not effective. In 1988, *Time* magazine published a special issue on the 150th anniversary of photography which stated that the magazine would never digitally manipulate a photograph. Aside from the earlier O. J. Simpson example, in the very issue which contained the statement, the cover

photograph of Olympian Mary Decker was digitally manipulated.

In the middle of a distance race, she fell to the ground, and an Olympics official came over to help her up. That official had a walkie talkie in her hand. In the photograph as shot, the antenna appeared to be sticking out of Decker's chin. An editor made the decision to digitally "erase" the antenna. (Tomlinson, 1993, p. 17)

Digital Manipulation and the Law

Without a doubt, North American journalists and photojournalists agree that digital manipulation of content should be condemned. This condemnation, however, has not solidified into universal action. Don E. Tomlinson, a legal expert regarding the media and new information technologies, warns: "Accountability is essential for credibility, and with diminishing credibility comes increasing demands for the limitations of liberty" (Klaidman & Beauchamp, 1987, p. 229). In effect, Tomlinson predicts that without proper procedures to maintain credibility, journalism may lose all credibility and face stringent restrictions on the freedom of journalists. If their work is not credible then they will be forced to be responsible through strict legislative controls. While this may seem alarmist, this warning stems from several repercussions of digital technology and its effect on aspects of North American legislation regarding photography.

Legislation regarding photography typically falls under two pertinent categories: defamation and copyright law (Cavallo, 1978). Defamation law in Canada and the United States affords some protection against content manipulation, especially where a person's reputation is affected by false information. Basically, if a photograph is altered to portray an image that differs from the original that existed before the camera, and if that image adversely affects the reputation of a person, then the photograph can be deemed defamatory (*Harvard Law Review*, 1935).

When sued for defamation, a complete defence, or one which will

automatically provide a justification for the publication, is proof of truth (Long, 1990). In numerous court cases, photographic negatives have been used as proof of truth. Basically, in the simplest situation, a photograph can be used as real and direct evidence. The law, however, evolved when chemical technology and its restrictions meant that any negative would show manipulation of content (*Wm. & Mary Law Rev.*, 1984). The rules of evidence, however, will be forced to change when confronted with the reality that almost anyone can produce a photographic negative that may have undetectable content manipulation. Digital manipulation has serious repercussions for the legal attitude toward photographs (Tuck, 1987).

In light of the capacity to digitally create new images which appear as pristine negatives, it is only a matter of time before someone uses the defence that a photographic image may have been computer manipulated and is, therefore, tainted, writes Nancy Davis in "Electronic manipulation of photos will prompt courts to ask, is it real or is it digitex?" (1992). Fred Ritchin, author of *In our Image: The Coming Revolution in Photography* (1990) and former editor of *The New York Times Magazine* asks, "What would happen if the photograph appeared to be a straightforward recording of physical reality, but could no longer be relied upon to depict actual people and events?" (p. 45). In an analysis of Ritchin's premise, Johnathon Alter (1990) writes:

In other words, pictures like words, would be "proof" of little. Imagine how this would have affected, say the Kurt Waldheim case. The Austrian president consistently denied his Nazi past until presented with the photographic proof in 1986, at which point he admitted that the photograph was real. (p. 45)

There is also specific jurisprudence regarding photography and digital technology; a photograph qualifies for protection under copyright law and is defined in s. 2 of the *Copyright Act*, R.S.C. 1985, c. C-30, to include photo-lithographs and any work produced by any process analogous to a photograph. In 1954, a Canadian court held that "a photograph is something concrete, something in material form that cannot only be seen but handled, and involves the creation of a negative" (Harris, 1990, p. 56). This precedent which stipulates that a negative must be created holds photography in a stasis, new legislation or new interpretation of the existing legislation must be initiated to protect photojournalists and photographers from the misuse of their work.

Not only is the negative the determinant of the length of the copyright (it lasts for 50 years from the making of the negative) but its possession also determines who holds the copyright. According to the *Copyright Act*, "the author of a photograph is the person who owns the negative of the photograph at the time when the negative was made" (Harris, 1990, p. 70). This clearly determines ownership for independent photojournalists who operate their own studio and who permit the publishing of their photographs in newspapers while retaining the copyright. According to the Act a free-lance photographer could sue a newspaper for digitally manipulating his/her photograph if he or she holds the copyright.

An author has the right to prevent any distortion, mutilation or other modifications to his or her work. This right is subject to the distortion, mutilation or the modification being

prejudicial to the honour or reputation of the author. (Harris, 1990, p. 104)

Unfortunately, staff photojournalists who are employed by a newspaper do not enjoy the same protection. These photojournalists do not own the copyright to photographs taken for the paper; rather, the owner of the negative is the newspaper which commissions the photograph, not the photographer who produces it.

With chemical developing, the legislation for ownership and control of the negative was fair; photographers would take photographs and be assured that the image they submitted for publication was the one that would be published and credited to their name. If it wasn't they were able to pursue legal action. With digitization, however, the newspaper can completely change the photograph and under the current legislation, the photojournalist may end up being credited with a completely different photograph than the one taken originally with the potential to completely ruin the photographer's reputation.

Even though they are dealing with visual information, staff photographers and photojournalists are treated like staff writers for newspapers where the copyright belongs to the newspaper and not the writer. Their rights, however, are much more limited. A staff writer has limited rights over a story: he or she cannot prevent the publication of the article in the newspaper, but is entitled to prevent it from being published in books and magazines without the writer's permission. If the newspaper changes an article to the point that the writer rejects it, some union and

guild contracts enable him or her to remove the byline. At this time, there are no contractual agreements of this type for photographers.

The second issue of ownership pertinent to copyright is the fact that new technology may actually preclude future photographs from current copyright law at all. While this may seem to be a dramatic conclusion, it applies to new computer technology which enables certain cameras such as the Kodak DCS 200 or the Leaf Digital to convert images directly into computer language without creating a negative at all. While the resolution of these images is about half of a still photograph and they cost twice as much, innovations in this technology continually improve its quality.

Basically, the purpose of this short review of some of the legal aspects relevant to digital manipulation is to illustrate that limited legal recourse exists for those who are affected by digital technology, but as predicted by D. E. Tomlinson, the number of relevant cases is expected to increase in the near future (1993). Public dissatisfaction with deception, especially where it appears that little consideration has been given to the effect on informative value, may induce people to seek more up-to-date legislation and to use it to effect stringent controls on journalists.

Discussion of Ethical Guidelines

In response to the need to protect themselves and their product from diminishing credibility, and in light of many broken promises, many photo editors, photojournalists and news organizations re-evaluated their ethical guidelines to increase the stringency of their standards regarding the manipulation of news photographs. The Statement of Principle for the National Press Photographer's Association summarizes the general intentions of most North American photojournalists in the Statement of Principle published November 12, 1990.

We believe photojournalistic guidelines for accuracy currently in use should be the criteria for judging what may be done electronically to a photograph. Altering the editorial content of a photograph, in any degree, is a breach of the ethical standards recognized by the NPPA.

It is interesting to note that the decision to re-evaluate moral guidelines resulted in a strengthening of the traditional processes. Former NPPA President John Long writes: "...the principles which have guided us for 150 years in the practice of setting up photos, dodging and burning and lens selection are the same as those we now face in the electronic New World" (Hodges, 1991, p. 7). Photojournalists like Long believe that if they can only recapture the ideologies which existed when pristine chemical photography was revered, they can then prevent the degradation of their product. This view supports the call for a super-hero journalist to return photojournalism to an honourable methodology and rescue it from an untimely demise. In an article which examines potential solutions to the degradation of photojournalism's credibility, authors Jay Black & Bob Steele

(1991) conclude that the problem lies with today's journalists.

Journalists should be more courageous, more ingenuous, and more independent. They should be more aggressive in telling the truth, informing the public, and revealing social ills. That is the essence of ethical journalism. (Black & Steele, 1991, p. 9)

It is difficult to believe, however, that being more of anything will reverse this dangerous trend and enable photojournalists to cope with the changes effected by this technology. As documented earlier, many of the problems lie with production processes and the implementation of computer technology into the organizational structure of the news organization. The problem does not lie only with the journalist, but the processes which direct and guide the application of ethical principles and the production of journalism. In frustration, some photojournalists demand that all digital equipment be banned. "I weep for this industry," a photo department manager told Shiela Reaves (1991) when he realized the extent of manipulations possible with digital technology. He feared that the technology was too complex to be controllable and, he advocated, the best thing would be to ban it from the newsrooms. With the amount of money invested in digital darkrooms and the use of electronic pagination, however, this demand earns little attention and is not realistic. Digital technology is here to stay.

Some media analysts suggest that rather than apply the traditional standards of photojournalism, the guidelines for photojournalism should emulate those of print journalism: sources must not be fabricated; a quotation must not be fabricated or altered to mean other than what the

source originally meant it to mean; editing is restricted to grammar, verbiage and clarity of meaning -- and other changes are not acceptable for they may change inherent content. Many photojournalists already use this analogy to some extent when they wish to illustrate the dangers of manipulating content or to criticize the creation of an image with digital technology. In answer to a questionnaire, one photo editor compared content manipulation to falsification of facts in a print story: "Why not change the quotes in a reporter's story to make it better?" he questioned. "No way!! You just don't" (Reaves 1991).

Shiela Reaves (1991) agrees that the news photograph deserves the same respect as a print story and, consequently, must play by similar rules. But she also recognizes that, while this suggestion is sound in a theoretical sense, it offers little compensation when one is confronted by the differences in the media. The problem with applying print standards and guidelines to news photography are summarized succinctly by Patterson and Wilkins (1991), and analyzed by Reaves (1991) who observed that there is an "ethical dichotomy" emerging between editing words and pictures on the computer. In her analysis, Reaves writes:

A writer is praised for reworking words, however, when a photographer rearranges reality it is called staging and when a computer editor rearranges visual elements it is called distortion. Patterson and Wilkins recognize this as a critical difference between words and pictures: "We evaluate news according to print standards: linear and logical. Video and photography are neither. They have a quality Marshall McLuhan called 'allatonceness.' Editors should become aware of this ethical dichotomy." (Reaves, 1991: p. 22)

To ignore the fundamental differences in these media would be to eliminate

the very dynamism offered by visual imagery. This attitude is akin to that of the editors of *Le Monde* who believe photographs can add nothing to analysis. Many would argue, however, that adding a visual element to news makes it real for individuals, and allows them a perspective into scenarios which they would never see themselves. Credible photographs also aid readers with the comprehension of difficult and complex issues. Different media deserve different guidelines suited to the appropriate nature of their format.

The last solution to be examined here is the move to label digitally manipulated photographs. The Norwegian Institute of Journalists in Norway advocates using a circle with an M in it as an identification mark to clearly show that the photograph is a digitally manipulated montage. This mark is prominently displayed within the image itself (Tomlinson, 1993). Advocates of this label argue that stringent use by news organizations would potentially discourage the manipulation of photographs or at least the portrayal of manipulated photographs as pristine for. The premise is that this symbol not only identifies the montage to the public, but that it also destroys the aesthetic appearance of the image. For example, advocates argue that many photographers and editors would be inclined to avoid digital manipulation to avoid having to use the symbol which ruins the appearance of the image. Basically, it serves to eliminate manipulation for the sake of improving aesthetic appearance since the required label detracts from it.

In 1990, the Executive Committee of the NPPA considered this

solution and then rejected it. In an addendum to the NPPA Code of Ethics, published in *The Electronic Times* the Committee concluded it...

should not advocate the introduction of a symbol into photographs, reasoning that the integrity of a photograph (documentary or illustrative) should not be violated with the mandatory inclusion of extraneous material of any sort. The identification of illustrations by noting they are illustrations in the credit line is sufficient. The words "Photo Illustration" are already in common use in the U. S. and their use in the appropriate instances was encouraged. (November, p. 4)

The NPPA advocates putting the information in tiny letters above the cutline, or along the side of the photograph. *The Vancouver Province* follows this rule and, argues Graham, as long as the manipulated photograph is identified as such the credibility of the photograph and the news organization is preserved. The *Province* labels such manipulations clearly with 12 point type. However, this solution does not eliminate the problem that the reader still cannot determine what aspects of the photograph were manipulated. The only conclusion an informed reader can reach when viewing a photograph labelled photo illustration is that the entire image is incredible.

To combat this, *The Globe and Mail* newspaper publishes labelled photomontages or photo illustrations (only in art or feature sections) with a detailed explanation of what aspects of manipulation were done. For example, the cutline of the image could be accompanied by an explanation that a person's head was digitally superimposed on another's body, or that lighting was changed to emphasis a particular aspect.

Whether these labels, detailed or not, protect credibility is subject to

great debate. Warren Kinsella, speech writer, author and lawyer who involuntarily became the subject of digitally-manipulated photographs published by *Saturday Night* magazine, says that people believe photographs and do not notice the fine print which indicates a created image. Even when Kinsella told people the photograph he was in was manipulated, they found it hard to believe it was not real and that Kinsella did not pose with a mannequin resembling his employer on his lap. Additionally, this response is exacerbated when the image is presented in a credible publication. The investment of belief in photographs is a key reason why the move to label digitally manipulated photographs is not satisfactory. The public reluctance to disbelieve the photograph illustrates that this solution involves training readers to suspect every photograph and to be aware that they should look for a cutline explaining whether the photograph was manipulated. Not many photojournalists agree that the propensity of the public to assign credibility should be destroyed so that manipulated photographs can be published under a label for whatever reason.

Vancouver Province Senior Staff Photographer Jon Murray wants the credibility of photographs to be protected so that readers do not have to view every photograph as suspect. In fact, Murray argues that he wants news photographs to enjoy the same privilege of credibility that print journalism enjoys.

Who reads the disclaimer? Does it make it right because it says manipulated? If I write a story that's a lie, then put in at the end that its a lie does that make it right? (August 22, 1995)

If Murray's stance appears to be extreme, consider the following response of his managing editor, Neil Graham. After the publication of the manipulated photograph of hockey player Alexander Mogilny (which Graham advocated), Graham was interviewed regarding his opinion on whether this could affect the credibility of the *Province*. When asked whether he thought the manipulated photograph was akin to a sports reporter fabricating quotes with a small disclaimer at the end that the quotes were those that a player would probably have said, Graham agreed. In fact, he said that the *Province* would only publish such a story as an opinion piece or a satire, so that the reader would know that the quotations were not meant to be read as factual. If the newspaper led its readers to believe that such a story was factual, he argued, they would actually be deceitful. However, it is interesting to note that when this analogy is shifted back to photojournalism, Murray (the photojournalist) believes that such a photograph would be a lie. In contrast, Graham (managing editor) does not.

Jack Cornell, director of photography for the *Chicago Tribune*, is also critical of Graham's approach. "You can't rely on a caption to correct the ills of a misleading photograph... If you don't want to perpetuate the practice, the answer is simple: don't" (Cornell, 1987, p. 40). The arguments against labelling practices are couched in terms that one cannot be sure that the public will not be deceived. In fact, many photographs which have caused concern within the community have been labelled, but the labels are

too small or confusing to be clear. How many people can differentiate between the terms photo-illustration, photo-montage, and photograph? Each news organization applies these titles in a different way so they may mean a myriad of different things. Consequently, the credibility of photojournalism cannot depend upon the ability of its viewers to differentiate which photographs are intended to be credible news images. Labelling manipulated photographs also depreciates the value of accurate non-manipulated news images since one must take the time to look for the symbol or to read the explanation of manipulations before appreciation of the photographer's talent and belief in the image can be invested in a photograph. And if, as described earlier by Dahlgren, sensational photographs affect credible images, the value of all news photographs is threatened by this approach.

David Gray, managing editor/ graphics at the *The Providence Journal-Bulletin*, believes these attempts to retain credibility are misdirected (1987). He attributes the problems with preventing practices which diminish credibility to the processes in play for the gathering and dissemination of news photographs. "Let's stop blaming the equipment for the lack of editorial ethics, credibility and judgment, and the lack of photographer's control over the work they do," writes Gray. He admonishes:

...separate the ethics of the organization from the equipment they have. Also ask yourself who is running the equipment. *The Providence Journal* and *Newsday* in Long Island are the ONLY two publications in the U.S. where EDITORIAL people are running the electronic page assembly and color

equipment. Not a production department, not a contract assembler, not a color shop. Editorial people with editorial values. *Providence* and *Newsday* are not going to alter the reality of a photo because they feel it to be the wrong thing to do. Let's stop beating our breasts about the ethics of machines: They don't have any. Only their operators have ethics. (p. 29)

Gray emphasizes an important point: if those directing the news organizations are not following credible journalistic practices then proposals for solutions revolving around improved or more stringent ethical and moral guidelines are doomed. For example, The Associated Press recently published its ethical guidelines which state: "Simply put, The Associated Press does not alter photographs. Our pictures must always tell the truth." What makes this effort futile is that AP's existing guidelines may be sufficient to guarantee the credibility of its photographs. The problem is that photographs disseminated by AP may be indisputably credible, and yet they are subject to digital manipulations by computer technicians or graphic artists working for news organizations. It's as if a sober person vows to stay sober, while giving his car keys to a driver who is completely inebriated. This effort, noble as it may be, is clearly limited.

Demanding better performance from photojournalists is also not a useful response. Shiela Reaves' study of who is most likely to encourage digital manipulation conclusively illustrates the problem does not lie with photojournalists. Reaves, mailed 667 questionnaires to newspaper photo editors in late 1990 (Reaves, 1991). She found that photo editors who were members of NPPA were less tolerant of any manipulation than non-members by a significant degree and the majority of photo editors were very

critical of any kind of digital manipulation of content (Kenney, 1991; Reaves, 1991). These editors were experienced, 85 per cent had a background as a working photojournalist and over 67 per cent had over ten years experience in the newspaper field. Those who were more tolerant of digital manipulation were those who were less familiar with the technology; worked for newspapers with a circulation less than 100,000; had no background in photojournalism; and less influence in day-to-day editing (Kenney, 1991; Reaves, 1991). The less influenced by traditional standards and processes they are, the more apt they are to manipulate. The problem does not lie with experienced photojournalists, nor with the guidelines they follow. The problem is that those who are making the decisions are not following existing guidelines or traditional decision processes with regard to news photographs.

Concerned by the repercussions of the powershift in the darkroom, one assistant managing editor wrote in an answer to the questionnaire mailed by Reaves (1991):

I find all of this terrifying. I am primarily a word editor, and I would not trust many editors to make the kinds of photo editing decisions you are discussing. Some layout editors here barely know how to crop a photograph, let alone alter it. In the wrong hands, this technology is dangerous. Readers think photos don't lie. (p. 1)

The current status of diminishing credibility can be mainly attributed to the mismanagement of new technology, particularly the electronic darkroom (Ryan, 1993). Since it is effectively a problem with management, by changing the management of the personnel and product

one can expect an improvement in overall quality. Therefore, one solution could be to implement a different style of management; one that is based on the utilization of expertise of those who fundamentally believe in traditional ethical and moral guidelines. The recognition of expertise alone, however, is not sufficient to protect news photographs; photographers and photo editors cannot be expected to become as proficient with a mouse and software as they are with a camera and the darkroom. This new style of information management must be structured to utilize the knowledge and potential of personnel to the greatest capacity, and to ensure their knowledge and ethical standards become its foundation at all levels of news production and dissemination.

In an article for *Quill*, Buck Ryan (1993), assistant professor at Northwestern University and a newspaper consultant, writes that "the traditional approach represents a costly structural problem that lowers quality" (p. 19). In a descriptive article introducing his new concept for management of news organizations, Ryan writes:

What the industry needs is a new approach to writing and editing, one that realizes that verbal and visual people in the newsroom must be integrated before words and pictures can mesh on a page. (p. 19)

While Ryan is concerned with the overall quality of a news product and his model is directed at news organization management in general, his model is also appropriate as a solution to the diminishing credibility of photojournalism. He writes: "Newsrooms still operate in a very American, Henry Ford assembly-line way even though they are no longer forced to do

so." This style of operation has gradually resulted in the separation of the news organizations' goals from its practices to achieve them. This separation occurred, Ryan writes, because...

Over the last 30 years as newspapers have moved through their colour, graphics, design, zoning, and technological revolutions, newspaper management has made the mistake of focusing on desks rather than on tasks and on departments rather than goals. (p. 19)

By focusing on fast production of news photographs to fill news holes and allowing technicians to facilitate decisions regarding news content, news organizations have lost sight of how to best achieve credible quality journalism. Rethinking the goals of journalism must be incorporated with a revision in management processes and internal social structure or the organization futilely works toward an unattainable goal. Goals and practices to achieve them must be synchronized to be successful.

Ryan points to the patriarchal and hierarchical style of management prevalent in most newsrooms today as the reason why pressure is applied in the wrong areas of practice and the power over photo-editing lies in inappropriate hands. This style of management is evident in the response of photojournalists at the *Vancouver Province* which published a digitally manipulated photograph against their wishes. "Since we found out about the manipulation we've been complaining loud and clear," explained Senior Staff Photographer Jon Murray. But when Managing Editor Neil Graham was asked whether he'd consider the photojournalists' concerns the next time the issue arose, he answered: "The Editor's decision is final." While both sides have taken opposite views for this issue, they both agree

that credibility is crucial to the newspaper. If this aspect could become the focal point of discussions and the basis for teamwork, employee-management relations would improve and, perhaps, work quality would improve as well.

Ryan suggests that instead of the traditional hierarchical style, news organizations should utilize the power of teamwork. When managers try to solve persistent problems with pep talks or a tyrant-like style, they may be suffering delusion. They should look to structural barriers in the traditional news room that keep people from doing their best work (Ryan, 1993). Ryan envisions teams of specialized journalists working under a team leader, or maestro, who directs and orchestrates the team's ideas and concepts. With this vision, Ryan coined the term The Maestro Concept for his new management style. In a Report Prepared for the Annual Convention of the American Society of Newspaper Editors (1993) which details the theoretical and practical elements of this concept, Ryan explains:

The Maestro Concept is a new approach to writing and editing that flattens the management hierarchy, puts decision making in the hands of those with the most expertise, and brings reporters, photographers, designers and editors together as a team at the beginning of a story. (p. 3)

The first step in the Maestro Concept is a story planning meeting or "maestro session" that involves the key players in a story: a reporter, a photographer, a copy editor/designer, and the maestro. The story planning meeting occurs after the reporter has done some preliminary reporting to ensure that a valid story exists. "The session is designed to ensure that the

story is reported and that it will be presented in the most compelling way for readers" (Ryan, 1993). With the goal of identifying and answering potential reader questions, the entire package is sketched out including ideas for possible layouts, headlines, photos and graphics which provides a focus for all involved. The process takes about 15 minutes; less for shorter, hard news stories and longer for complicated, feature stories.

The benefit of this concept is that it spreads expertise throughout the collective by allowing reporters, photographers, copy editors and designers to learn from each other as they work at problem solving together. In the introduction to a Report to the Committee on Small Newspapers American Society of Editors, Ryan (1992) praises the increased expertise which results from this teamwork. Ryan writes: "Reporters know more about editing, photojournalism and design; designers know more about reporting; and photographers know more about design." This process enables each individual to best utilize their knowledge and creative potential, and exposes each to the other's ethical guidelines, standards and creative ideas.

If a team meets to discuss the best portrayal of the story of O. J. Simpson's arrest, the issue of manipulating his mugshot would be discussed at this point. If the manipulation was done without discussion, the maestro, or leader, would use his or her influence to ensure that the designer would not make such an important decision again without discussing it with the team. The premise is that every creative idea is aired; therefore, the designer would not have impunity to edit the photograph on his or her own volition. The actions of each member become

part of a team effort where each member is responsible for his/her performance to the other members, and indirectly enforces that sense of responsibility to the readers. This practice regains the sense of accountability which Tomlinson decried was lacking since the sense of collective responsibility would work to ensure that manipulative techniques were discussed prior to their occurrence. Additionally, the input of reporters and photojournalists who are more familiar with ethical guidelines and are more sure about ethical standards would exert an influence on the designer as well.

Ryan's concept is similar to Total Quality Management or the principles of management espoused by W. Edwards Deming. The goal is to remove the barriers that prevent people from doing their best work, to improve the product by implementing standards of quality from the very beginning, and to raise collective awareness, knowledge and creativity by encouraging the exchange of ideas and constructive problem solving. It may not be possible to persuade newspapers to re-allocate space for photoreportage; however, it is possible to incorporate a new method of management which ensures the credibility of photojournalism, especially since the newspapers that have implemented this methodology report improvements in both journalistic performance and the quality of the news product .

Jerry Morehouse, designer for *The Pharos-Tribune* which implemented this concept over two years ago in 1992, writes that this management style presents a solution to the problems stemming from the

traditional approach to colour photographs.

Before we started the system, we were interested mostly in our use of color. But sometimes we were using colour photos that were there only for the sake of color. Since we've gone to the system, I think the emphasis has been more on information. (Ryan, 1993, p. 10)

The increased emphasis on information bodes well for the future of photographs. Not only does it promote the use of photographs for their informative value, it also advocates the protection of their content. Stand-alone photographs, like wire copy, which are often used as space fillers or lead art were replaced by centrepiece packages of community interest when *The Pharos-Tribune* implemented the new management style. The photographs accompanying these packages were well-planned, appropriate to the content of the story, and given as much importance as print journalism and layout. This is reminiscent of the importance attributed to photography when it comprised photo-reportage and enjoyed the height of its socio-cultural influence.

This management style redresses the current imbalance of power endured by photojournalists and seeks to use the uniqueness of the medium to enhance and create a sense of informative value to news and features. In addition, photographers who work in this system feel more involved in the journalistic sense. They get access to top decision makers in the newsroom, something they sorely lack now, writes Ryan. Steve Summers, head photographer at *The Pharos-Tribune*, writes that photographers now feel they are more a part of the operation. Instead of shooting photographs for news stories where the photographer has no knowledge of the angle or

focus, the photographer can produce a more accurate and factual photograph. "For photographers," writes Dan Bloom, editor for *The Pharos-Tribune*, "they not only have new input into the writing and display process, but they no longer have the burden of producing wild art. The 'kids, dogs, parks syndrome' of small town 'I must have a shot today' has been eliminated" (Ryan, 1992, p. 8).

The photographer retains the freedom to use the creativity and artistic sense needed to produce great news photographs, but the content is more focused and, as a result, more valuable in an informative sense. Further, having a clear focus reduces the amount of time usually taken to look for news stories and provides the photographer with increased time to capture the best photograph. Photographers, writes Ryan, now get "as much time to think about stories as reporters, and that alone dramatically increases the chances for quality photos."

Team and leadership management is flexible enough to work in any size news organization. In a small paper, the team would include one representative from each necessary category: reporter, photographer, layout/graphic artist. The maestro would be the editor or publisher. If the photographs to be used are wire photos, this concept still applies except that the photographer should be replaced with a photo editor who will be qualified to ensure that the photograph is treated with proper consideration. In a large paper, the maestro could be a section editor, assistant managing editor, or the managing editor (Ryan, 1993). Others who will be involved, extra photographers, copy editors and additional

layout artists may also be included. In this management concept, the size of the team is irrelevant, as long it includes members from every area involved in the gathering, production and dissemination of the story.

In recognition of the need for change, some news organizations such as the *London Free Press* and *The Dayton (Ohio) Daily News* have physically re-organized their news rooms and set up a "newsroom without walls" (Albers, 1993). At *The Dayton*, and the *Press* reporters, photographers, graphic artists and administrative support are grouped in clusters with a team leader. Teams are encouraged to follow stories that fit in with their focus, but lie in others "beats". The onus is on quality journalism for the consumer rather than adherence to traditional management style.

At *The State*, South Carolina's largest newspaper reporters and circle editors focus on producing the best stories possible (Johnson, 1993). During a series of teambuilding exercises in 1991, *The State* redefined news to look at the pattern of where people build their lives (Johnson, 1993). Beats were clustered into circles based on broad themes important to readers which include areas such as City, Governance, Community Roots and Transactions. Titles changed, beats changed and the roles of all personnel involved in the news changed. As a result, the transition from hierarchical newsroom processes to team decision making was not easy. This process has also been followed by some Canadian newspapers such as *The Ottawa Citizen*. Those involved generally agree that the product is better, but the change was exceptionally difficult, especially where personnel continually

tried to apply techniques appropriate in the old management style (Johnson, 1993).

The change to new management style cannot be expected to be easy, in fact it is very demanding and requires co-operation on every level of the news organization. Critics of the new management style point to the cost of changing management which results in severance packages, interior redesigning, a need for new technology, and training. It is true that the news organization can expect to incur costs in the initial change, but in view of potential repercussions from inaction, this outlay can be justified. Some editors worry that the story planning sessions may be too time consuming to implement into a busy newsroom. This criticism is offset by the comments of those who point out the increased efficiency in execution from that point to completion (Ryan, 1992). Less time is wasted by reporters who previously dedicated time and resources to stories that do not get published. The same applies to photographers who wasted time, gas money, and chemicals taking and developing photographs which were not selected for publication.

One worry is that middle management is not necessary in a news organization centred around teams and leaders. Ryan and other researchers (Ryan, 1993; Johnson, 1993) agree that middle management is no longer necessary, pointing to a need for downsizing and better quality products to justify the elimination of this category of personnel. While this may satisfy the news organization's accountants, it threatens the careers of many personnel, most of whom exert power within the organization. This

factor may be controlled with careful re-organization or dealt with compassionately by offering retraining or substantial severance packages. Either way, it must be recognized as a factor which is negative in the short-term, and positive in the long-term, but which will cause many to work to avert re-organization and changes in management style.

It should be noted that implementing a new management style will not pose a complete solution to the problems arising from the move to digital photojournalism. This solution would be best for a quality mainstream newspaper which is concerned about the repercussions of implementing the new technology and wishes to do so in a manner that is well-suited to retaining credibility. This solution might work well at a newspaper such as the *Vancouver Sun* where management is committed to preventing the publication of manipulated photographs, but where manipulations do occur due to production processes or other similar reasons. Unfortunately, for a newspaper such as the *Vancouver Province* which is less concerned about the credibility of photographs and more concerned about the bottom line, this solution will not work. In fact, it is doubtful that this type of news organization would even seek such a solution. If the news organization is not oriented to credibility, a procedure where 10 people make a decision instead of one will not succeed. There is no guarantee that the 10 will be more ethically right than one; indeed the idea of accountability will not work if those to whom one is accountable do not care. *Vancouver Province* Staff photographer Jon Murray was extremely angry that his paper published a manipulated photograph, but he could not contravene an

editor's decision. "It's a job we all do," Murray says. "We're not kidding ourselves about living in a democracy."

In these cases, if the news organization refuses to re-organize and persists in presenting digitally manipulated photographs as factual documents a more drastic and progressive solution is called for. This solution would be imposed on news organizations which are reluctant to work to protect the credibility of photojournalism by a professional body supported by legislation.

Generally, manipulated photographs arise in one of two situations: either a photographer creates it and sells it to a news organization or a news organization manipulates a factual photograph which a staff or freelance photographer has submitted. If the purchased photographs could be of guaranteed quality -- to the extent that the photographer would guarantee that the content of the photograph was not manipulated, the news organization would be protected. Further, if the news organization had to guarantee to photographers (and readers) that it would not manipulate the content of photographs, a second protection would be enacted. These guarantees could be accompanied by some penalty, such as a fine, which would be imposed when the guarantee was compromised to give them weight within the journalism community. This solution is aggressive but effective since it targets the two sources of manipulation and makes those responsible for control not only accountable but responsible for their decisions. This proactive solution is the professionalization of photojournalism and the implementation of a trademark of quality.

Professionalization of journalism is an issue which has been debated for many years. However, this thesis does not call for professionalization of journalism in toto -- only photojournalists should professionalize because the nature of their work and their informal structural organization leans towards a formalization of this kind. Further, the threat to credibility directly influences this medium to the extent that no other solution will be effective enough.

The formal definition of a profession signifies a body of individuals, a collective, engaged in an employment which requires some learning and which operates within a clearly outlined structure of methodology. Lawyers, engineers and doctors comprise some of the professional collectives in society. Each works within a strict methodology that is clear to both the professional and society which enables the development of trust in services or products. Each profession is supervised through a board of peers, such as the Canadian Medical Association, which is designed to standardize and apply the rules of the methodology of the profession, and to provide retribution for those who fail to comply.

It should be made clear that the purpose of structuring photojournalistic practices is not to interfere with freedom of the press, but to promote self-regulation to avoid any need for state involvement. In Canada, the right to freedom of the press is guaranteed in the *Canadian Charter of Rights and Freedoms*⁹ and this right extends to photojournalists.

⁹.*Canadian Charter of Rights and Freedoms*, Part I of the *Constitution Act*, 1982, being Schedule B to the *Canada Act* 1982 (U.K.), 1982, c. 11.

The *Charter* is often interpreted as providing the press with the freedom to report on any issue without interference (subject to some limitations such as the administration of justice and libel) but also without accountability to state or society. Its performance is generally unregulated and in many cases undirected.

As active liberalism recognizes that society must use its powers to establish the conditions under which individuals can possess actual, as distinct from merely legal liberty, so must the press establish the conditions within which it can operate according to regulated standards that will not only improve its performance and credibility, but will justify its moral right as well. These conditions must extend to ensuring that photographs supplied to news organizations meet certain credible and qualitative standards and that news organizations which undertake to process and publish these photographs uphold these standards as well. It is here, within the profession, that the use of a trademark will ensure uniform application of a credible standard. By its very nature, a trademark is suited to accomplishing this goal. A trademark is a type of intellectual property consisting of a term, symbol, design, or combination of these cues to give protection to the identification of a product (Lynne, 1995, p. 3). The general purpose of a trademark is to "prevent others from using distinctive marks that will confuse people into thinking they are dealing with the owner of a trademark when they are not." (Lynne, 1995, p. 5). This purpose can be applied to photojournalism in that only photographs which meet certain credible standards can be published with a symbol denoting that the

photograph was taken by and endorsed by a professional photographer. The news organization will be permitted to publish the photograph accompanied by this symbol of professionalism only if it agrees to comply with the standards of credibility endorsed by the profession. If it does not comply, it may not publish the symbol and the reader will be aware that the photograph does not have professional endorsement. If the news organization does manipulate the photograph and publishes it with the symbol, the profession may take legal action to protect the quality of the symbol. This symbol would be similar to products which are endorsed by the Canadian Dental Association, the Canadian Medical Association, and the Canadian Veterinarian Association. The public is well aware that products endorsed by these professional bodies meet certain standards and can differentiate between these products and others. One can say that the products which are not endorsed can be seen to be lacking some aspect of quality which the professional body requires. Consequently, the public would come to look for labels on photographs to be assured of their credibility. The uniformity of the label would ensure that the public was not confused or unable to understand which photographs were meant to be credible and which weren't. Finally, an aura of legislative authority would be inherent within this whole process.

This process of professionalization and the application of a trademarked symbol of quality is not intended to restrict tabloids from publishing manipulated photographs but rather to restrict them from publishing these photographs as factual documents. Under this regime,

only photographs produced by professionals who personally guarantee contextual quality would be permitted to be marked as professional within the photograph's caption. The mark could be a small symbol such as that used for copyright or a crest as used by the Canadian Veterinarian Association. Other photographs taken by non-professionals would still be published but without this mark of quality.

In response to the commitment by the photographer, the news organization would have to comply with guaranteeing that the photograph would not be manipulated except by those who agreed to work according to professional standards. The intention is that if the majority of photojournalists professionalize, the professional standard would be a coveted and valuable mark since it would signify to peers and readers that the photograph was taken and published according to certain factual and ethical standards.

The difference in this approach from simply labelling a photograph as manipulated in its caption is that professionalization would subject all news photographs to an active scrutiny of acceptance -- and they would be treated as if the professional photographs implied quality similar to a manufacturer's warranty regarding the quality of the product.

Photographs without this warranty would indicate to the public that 1) some photographs are more factual than others; 2) photographs taken and endorsed by the profession of photojournalism meet high standards and guarantee factuality to the reader; 3) newspapers which publish professional photographs are committed to credibility; and 4) photographs

without professional endorsement may be less credible.

While this idea may take some time before it is accepted, it must be pointed out that many Canadian political reporters operate under similar conditions. One cannot report on events in the House of Commons without a membership to the National Press Gallery; membership is not automatic, it is conditional and restricted. Membership accords certain privileges of access to technology, information, and the participants within the political system, and the exclusive access brings credibility and prestige to one's work although access does not in any way imply that a journalist is more credible. This illustrates that where necessary, journalism has taken on some aspects of a profession. Professionalization would make photojournalism accountable first to other journalists and other news organizations. This effect may be diffused to the public as the internal guarantee and accountability results in uniformly credible journalism. This method is attractive to some journalists and news organizations who fear state intervention because it enables photojournalists to regulate their own performance. A structured methodology would stay many criticisms regarding unethical practices, and would ensure the continuation of photojournalism as a source of credible information for it would regulate nebulous areas such as digital editing and would set certain guidelines regarding content manipulation in a way that those responsible would have to answer to both a board of professional photojournalists and the public.

It is also important to note that professionalization of photojournalists would not require a considerable change in the way that

photojournalists comport themselves on a day to day basis. The NPPA has released figures which indicate that as many as 87 per cent of photojournalists in North America are members of the association now. It would be a significant but logical step to build upon this membership to develop a formal board of peers, a constitution, and standardized ethical guidelines for those who wish to become professionals. The ethical guidelines would take precedence over those implemented by news organizations, but since they would simply be a codification of the standards followed already (and recently revisited by many attempting to preserve credibility) this task would be difficult but not impossible. Photojournalists would be certified, and licences which carry with it the ability to put the mark of a professional on photographs would be granted based on whether the photojournalist was willing to become a member of NPPA, to follow its ethical guidelines carefully, to avail herself of the powers inherent with membership and, of course, to be subject to disciplinary action as well. A certain amount of coursework and experience would be required, perhaps even an apprenticeship, and a licence would certify that the photojournalist operates on a level that demonstrates knowledge of proper methodology in chemical and digital photography, an understanding of ethics, and a commitment to the profession. These requirements would not be too difficult for inexperienced photojournalists to fulfill since many undergo an informal apprenticeship now as they learn the rules of practice and work to establish a good portfolio.

The benefit of professionalization is that a professional photojournalist would have redress against a news organization which subjected his or her photograph to content manipulation. It is presumed that news organizations will want to publish professional news photographs since these would be marketed as being of the highest calibre for credibility and newsworthiness. Even if a news organization does not care about credibility, it would still wish to purchase top quality news photographs. However, by purchasing the news photographs, the news organizations would agree that the photographs would not be manipulated for publication. This is a similar agreement that news organizations have with Associated Press, but the agreement would be extended to encompass all professional photojournalists. News organizations which manipulated photographs guaranteed with a professional standard would have to answer to the board of photojournalists.

A board of professional photojournalists would be responsible for outlining accepted methodology, supervising accreditation, drawing up a code of ethics, and hearing complaints and charges of unprofessionalism by public and professionals alike. In addition, it would also evaluate the actions of owners or representatives of the new organization.

If the board ruled the owner of a newspaper is found guilty of contravening professional practices, it will be able to demand that the news organization provide a remedy according to trademark law. The board could also require professional photojournalists to refrain from selling photographs to the news organization. These actions would not prevent the

paper from continuing to publish photographs, but would provide remedies and could notify the public, through other professional media, why the paper was judged as unprofessional by its peers. For example, when *National Geographic* manipulated its cover photograph they were responsible only to their outraged readers. However, if photojournalists were to professionalize, the board could seek legal action for breach of contract and could require the magazine to publish an apology to its readers outlining the exact manipulation. The leverage used by the board would be potential withdrawal of the ability to publish professional photographs. Further, if the photojournalist knew that the photograph was to be manipulated before publication, he could request the board of photojournalism peers to step in and either seek an injunction against publication or to demand that the photograph be published without professional endorsement.

For professionalization to be an effective solution it would require the participation of the majority of photojournalists. In this way, news organizations would be forced to deal with professionals if they wanted to hire photographers or to purchase news photographs. It is true that tabloids which insist upon digital manipulation of content can force in-house photographers to create these photographs. This type of photograph would not be subject to controls by the profession with the exception that it could not be marked as the work of a professional. This could eventually mean that all unmarked photographs would have the same credibility as illustrations. With enough publicity and advertising by news organizations

which carry the professional photographs, public awareness would increase to the point that photographs without the standard would be regarded as less than credible. This is preferable to the present situation where the attitude toward photographs is generally moving to the point where most photographs will be considered to be less than credible due to indiscriminate digital manipulation.

The documented effect of public disapproval lends weight to the argument that a news organization which does not have the ability to publish professionally-endorsed photographs could suffer considerable financial loss if consumers were to withdraw support in favour of a publication which endorses professional photographs. If all photojournalists were professionalised and the public was aware that certain photographs produced by these professionals could be trusted, they would view with scepticism those that were publicly labelled as suspect specifically by the absence of the professional endorsement. Eventually, subject to this pressure, the news organizations would take care to publish manipulated photographs with the clear justification that they are manipulated and they would avoid publishing them as factual documents.

Where some may argue this solution distances the photojournalist from the public, there are two reasons to justify certification. Many photojournalists already make an effort to distance themselves from society to obtain objectivity and an aura of professionalism, under certification this status would automatically be granted. Secondly, just as people can represent themselves in court and it is not necessary to be represented by a

lawyer, so would an individual be able to submit photographs for publication in journalism. The purpose is to ensure credibility and the establishment of standards of performance, not to prevent individuals from publishing.

Freelance photojournalists and students, literally anyone who wish to contribute photographic material to a news organization but who are not recognized as professional under this definition would still be able to contribute material. However, an editor or someone of equivalent responsibility must ascertain that the material meets the criteria established by the profession. Captions will stipulate, as many already do today, the identity of the photographer but would also include whether the photographer is licensed. If not, the name of the person who approved the work will be used to endorse its credibility by providing a system of checks and balances. The system still requires trusting the photojournalist but it adds consistency of research and presentation of information for the public.

These reforms will not eliminate problems caused by news organizations willing to sacrifice credibility for sensationalism but it will enable photojournalists to regulate their work. The benefit to the public will be extensive as small community newspapers and the larger national papers would all be publishing and processing news photographs according to the same regulations. Manipulation of news photographs would be less erratic, and news photographs would become more credible as the public were assured that the photography, editing and publication was conducted in a manner according to structured guidelines.

While some may criticize this proposal, saying it will have little or perhaps too drastic an effect or it is unworkable, it must be considered that no other solution provides the equivalent amount of control over digital technology and its potential to affect credibility. In a personal interview, Aaron Levin, documentary and news photographer, argues that professionalization goes too far in that it restricts the freedom of the photographer and would subject him or her to too many controls. He is reluctant to agree to submit to regulation although he would consider professionalization if it were to be pervasive into the culture of North American photography.

Sure I would professionalize to compete with other photographers, especially if those buying my photos were looking to see if I was a qualified professional. I know that the credibility of photographs is a big issue with digital technology and I don't know what we can do to control it. It's just that I hate to see the state come in and regulate us because we can't seem to be able to do it ourselves. (August, 1995)

While professionalization appears to be a drastic solution, a move to professionalize within the realm of photojournalism could mean that factors such as peer pressure and pride will interact to create a system of internal maintenance which will be more effective than what exists at present. The alternative, which is to persist with solutions which are proven to be ineffective, is to subject photojournalism to a slow death as credibility continues to diminish.

In conclusion, professionalization of photojournalism would provide direction for the press without infringing on the right of freedom of expression. It would impose regulations and standardized methodology to

strengthen the weak and sometimes ineffective structure of photojournalism practices maintained by individuals in a competitive, profit-based field. Professionalism would encourage accountability of photojournalists and photoeditors to society by encouraging them to assume responsibility for their own practices within a formal structure regulated by their peers. The photojournalist would become part of an organized collective and would follow methodological practices of work in ethics, presentation of information, editing and presentation.

These practices must be maintained to high standards of performance, otherwise the credibility of its information will be suspect degrading the one forum of information which is necessary to enable a democratic society to function and to help society inform itself and act intelligently.

CONCLUSION

To alter a documentary photo once it has been made, is to lie. The moment in time we choose to record is sacrosanct. We as photographers have no right to alter it and, by God, no editor has the right to change it in a computer.

Joe Travers, NPPA President, (1994)

In the last 150 years, journalists have seen tremendous innovation in the technology used to gather, produce and disseminate news. In many instances, journalists have capitalized on new, often better abilities afforded by new technology which has enabled faster, more efficient production of mass information. Inventions in photography and production methods enabled newspapers to incorporate a visual element into their news product, and consumers became accustomed to realistic images accompanying news events reported in newspapers and magazines.

These news images were meaningful for both their informative value and entertainment quality, but it is the informative value of news which has always been the most important characteristic since it allows the news consumer to feel confident about using this information as a base for discussions, beliefs and perceptions. This base depends upon the credibility of the information, and is only as sound as the information is credible.

Manipulating or changing the content of photographs in any way changes the visual reality of a situation as it perceived by the viewer. It compromises sociological data which is the basis for photojournalism since

photographic content constitutes the fact record of the photograph. In a letter to Jim Gaines, managing editor of *Time*, Joe Travers, president of NPPA, (1994) writes:

It is "The Moment", the purity of the time captured that must be held sacred. Sadly, lots of pictures are changed or retouched or "are not exactly what they seem. Which is all the more reason that when a truly demonstrative "Moment" is captured that it must be protected so that your readers will know the difference between "TIME" and "The National Enquirer."

Within an atmosphere which tolerates some manipulations and deception some of the time (generally quality newspapers allow those which clarify a visual image), the introduction of digital technology further confuses the issue of credibility. Consequently, false or misleading information presented as fact has been universally rejected and criticized in the realm of what constitutes news. This rejection is important for it works to prevent journalists from becoming complacent regarding the use of deceptive rather than factual images to illustrate news. If deception were to become the norm rather than an exception, journalism would lose its claim to credibility. No news consumer can confidently form opinions or develop an understanding of events if their information is erroneous, or worse, purposely tailored to deceive.

News photography is essentially a style where photographers use photographic technology to implement elements of integrity, credibility, and factuality into their medium. It has its roots in the works of early photographers such as Emerson, Eisenstaedt and Stieglitz who worked to develop a popular methodology which incorporated the above elements.

Within their methodology these photographers prized pristine photography where no subjective elements interfered with the image captured by the camera, and the talent of the photographer alone produced candid and aesthetically pleasing images.

Photojournalism incorporated this rigid doctrine of practice and added the component of objectivity which practitioners borrowed from the Social Sciences. This second component lent an atmosphere which implied that photographs of this nature were factual data; visual records of social events which could then be used to inspire and effect social reform. This style of photography came to be considered a faithful observer, recorder and reporter of life's images and a dependable source of visual information.

As such it epitomized most qualities necessary to photojournalism, however, two additional aspects were required to solidify its claim to being the equivalent of print journalism: 1) a discovery of its effectiveness as a tool to educate and effect social reform; and 2) the implementation of carefully planned and designed visual narratives, or photo reportage, into daily news media and magazines. Once these two aspects developed historically, then photojournalism, especially its protegee, photo reportage, came to be considered an expansion of journalism itself. At this point, photojournalism reached its height of popularity and influence within North American news media. It was informative, provocative, and incorporated hours of detailed planning and research, and its technology was synchronized with the needs and ideals of photojournalists. The capacity to gather, produce and disseminate photographs was completely in

tune with the needs of the photographer to produce news photographs that met with consumer demand.

The processes to effect photojournalism were also at their most efficient since they were completely oriented to the production of quality news photos. Ethical guidelines and moral standards which grew out of these processes were clearly understood by news organizations, photographers, their editors and the consumer. Photographers and photo editors worked together to produce photographs that were almost sacrosanct in their credibility. In turn, the public could not seem to get enough of visual narratives of foreign and commonplace events. This era provides a superb visual record of event such as war, the American Depression, life events and city news.

In light of the necessity to retain informative value, it is disconcerting to realize the findings of this thesis indicate that while early documentary photographers were dedicated to a pristine methodology with zero tolerance for manipulation, this dedication was eventually replaced by a complex and less rigorous decision process. At the height of photojournalism's success, when the popularity of visual narrative, technology, and procedural methodology were synchronized the edict which stipulated zero tolerance for subjective interference dominated the trade. This edict, however, exerted an increasingly weaker influence as photographic technology continued to develop. Within a few decades, the capacity for subjective interference like that stemming from the introduction of colour photography broadened the boundaries of the

traditional decision process. If one considers the rule of zero tolerance for subjective interference to be at one end of a continuum, the decision process represents gradations along the continuum, proceeding to the extreme which is deception. This process and its affinity for a zero tolerance rule for manipulation worked well when black and white photography was the only venue, however, when colour photography made its debut, the decision process shifted along the continuum closer towards deception.

The change to colour technology in photojournalism meant that photographs were selected depending upon aesthetic value rather than candid news content. Further, the photographer was often forced to arrange news photographs for a colour shot, while black and white photography which capitalized on spontaneity was overshadowed by the new, more dynamic and appealing colour photos. This shift from spontaneous to arranged photographs further blurred the differentiation between alteration and enhancement which had previously been clearly detailed in ethical standards. Along with this change in the process, production personnel also gained more influence in photojournalism, sometimes replacing the decisions of photo editors concerned with news content with those by personnel mainly concerned with best use of colour and presentation of information on a page. The shift in decision-makers combined with a move to more "arranged" photographs exerted a negative effect on the sociological aspect of photographic data since almost 10 per cent of colour photographs were content-altered to produce a better, more dynamic image.

Digital technology exacerbated this issue since it increased the capacity for subjective interference by photographers, photo editors and production personnel. Manipulation techniques became undetectable, easy, and even more acceptable since the groundwork to accepting more arranged photographs had already been established. Ethical guidelines which were affected by the changed decision process were pushed even farther from the edict of zero tolerance so that it became a historical memory rather than an everpresent standard. Despite these changes, however, most media controllers enthusiastically embraced the digitization of production since it effected less expensive, easier processing and faster means. Along with the capacity for better, faster pagination and production, there was also the ability to quickly and seamlessly create photographic images which have no base in reality. By combining creative ability formerly found only in the realm of artists with the reality of a photograph, digital technology and the uses to which it has been put changed the reality of media forever by diminishing the credibility of news photographs.

It must be clearly understood that the true culprit is the propensity of news organizations to use the technology without making clear that the published image is not factual. One has cause to wonder why, with the extent of what is at risk, do news organizations allow manipulations and deception to occur to such an extent?

The answer is complex and can be attributed to a number of factors. In some instances the manipulations are attributed to a growing lack of

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accountability within the news organization and in others to the transfer of power from photojournalist/photo editor to computer operator. Most disconcerting, however, are the cases where the digital manipulation is effected by photoeditors because the technology made it fast, easy and accessible to create or to create a "better" photographic image.

The move from a zero tolerance edict in the realm of digital technology is even evident in the attitudes of some editors who are discovered by the public to be responsible for content manipulations. *Time* Managing Editor James Gaines did express remorse at the negative public reaction he encountered when he allowed the publication of the manipulated photograph of O.J. Simpson. However, he did not, as one might expect from an editor of a such a prestigious news magazine, offer an apology for his decision to facilitate the publication of a manipulated image. Instead, he excused his decision to publish a manipulated cover photograph as a poor choice.

Some researchers would attribute his decision to publish such a photograph to the fact that some news organizations believe the cover is fair game for illustrations that resemble reality since they are a selling point for the news magazine. What Gaines does not realize is that public reaction makes it clear that the public prefers credible news photographs which are less dynamic. Time and time again public response to content manipulation demonstrates public affinity for content which is not tempered by context.

Gaines is not the only example of those in the journalism community

who seek aesthetic appeal over content and who use digital technology to achieve it. Many production personnel and computer technicians are considered to be under the jurisdiction of journalism guidelines and ethical standards, but in fact have their performance judged by entirely different standards. These people win awards and recognition based on their ability to best utilize technology to produce aesthetically pleasing and well-presented information. They are not awarded within their field of expertise for meeting the standards of journalism, although they are criticized when their actions directly contravene them.

Mario Garcia and Peggy Stark, newspaper designers with the Poynter Institute for Media Studies and authors of *Eyes On The News*, approach newspaper layout and design from a content-based stylistic approach. Garcia and Stark focus on form, colour, and visual dynamics with a view to best illustrating content. In an interview, Garcia says that while he and Stark are fully cognizant of the need to protect the credibility of information, many less-experienced (journalistically) designers and artists are less concerned with credible content. For example, designers and computer artists who specialize in newspaper layout and design are more frequently artists who are less oriented to journalism and more oriented to success within their particular field. Since they march to the beat of a different drummer, one can hardly expect them to uphold guidelines and to effect decision processes which have become nebulous even to practiced journalists without active encouragement or enforcement.

Throughout these changes in process, in some news organizations

the emphasis changed from the collection of objective sociological data to one that allows changes to photographs to protect viewers or subjects. The removal of a soldier's exposed genitals or the discrete camouflage of a young boy's open zipper are prime examples of this tendency to alter reality out of a supposed responsibility to the subjects or viewers. While some may find these actions to be absolutely necessary for responsible journalists, it must be recognized that any act of content manipulation, regardless of intent, contributes to the diminishing credibility of journalism.

Following this overview and examination of the way that photojournalists developed their process and ethical standards for their trade as well as their influence by developing technology, several conclusions can be reached. First, news organizations have and will continue to have the informative quality of their product questioned due to the diminishing credibility of photojournalism. In an e-mail, Joe Travers writes that *Time* has endured so many scandals from its propensity to publish manipulated photographs that many members of the NPPA say they view the credibility of its news photographs with scepticism. When one considers the increasing frequency of the occurrence of content manipulation, the constant dissemination of information about this technology and its capacity for manipulation and deception, a corresponding public view may be predicted for the near future.

The second conclusion follows closely on the first. Deceitful manipulations presented as reality are unacceptable no matter where they are published in a publication because the public focuses on content, not

context. There is no indication that the public realizes that a cover photograph may be subject to content manipulation to produce an eye-catching image. Instead, research evidences that the public applies a blanket view of credibility to photographs published by news organizations. In light of public reaction to manipulated cover photos such as those published by *National Geographic* and *Time*, journalists and news organizations should take care to ensure that all news photographs are subject to the same standards regarding manipulation. Further, the figure that one in 10 colour photographs are content manipulated shows the extent of manipulation for news photographs in general. The emphasis must shift back to the edict of zero tolerance and a more uniform and defined process must be implemented by news organizations.

Unfortunately, many of those responsible for decision making are not accountable for their actions to either journalists within news organizations or the consumers. Many news organizations which have implemented digital technology use only ethical guidelines to determine that basic decision processes regarding manipulations are followed. Often the news organization does not focus on content manipulation formally, until it must orient itself to damage control. For example, a manipulation occurs, the public is alerted and reacts, and the newspaper then investigates who is responsible. In this system, the only control is public outcry which depends upon the knowledge that an image is manipulated. Given the undetectable nature of digital manipulation, this is obviously a very poor control; further, it is clear that it fosters an increasing distrust for

the ability of news media to educate and inform.

Therefore, a solution to prevent the diminishing credibility of photojournalism must include both journalists and production personnel. It must incorporate several facets of the problem to ensure that it does not attempt to reform or improve only one specific element of the problem. It must be based on the nature of digital technology and its full utilization and it must incorporate both the knowledge and traditions of seasoned journalists and be applicable and pertinent to non-journalists. Finally, it must be one that can be actively implemented into news organizations and actively imposed on those who persist in abusing the credibility inherent in photographs. Most important, it must encourage co-operative efforts to collaborate.

Digital technology requires new thinking processes, a new application of standards and the re-evaluation and assessment of the goals of news organizations committed to quality journalism. It is crucial that a news organization must examine its use of photojournalism and decide that it is important to preserve its unique and valuable nature. Instead, this thesis finds photojournalists and critics have responded by re-iterating ethical guidelines, demanding better performance from journalists, and some (but not many) have completely rejected digital technology. In light of what is required to control this new technology, the futility of these efforts and their failure to accomplish long term benefits should no surprise.

The first aspect for a proposed solution looks to the internal working process of the publication itself. It recognizes that photojournalists have

failed to synchronize journalistic ideals and technological change, and news organizations have been slow to recognize the problem and to restructure internal processes or even to devise means to educate and inform their consumers. Therefore, the first area of change necessary is to the social structure of journalism. This thesis proposes that passive ethical guidelines must be replaced by protocols. Protocols pose a more active approach to ethical decision making since they capitalize on a corroborative process. This process ties in perfectly with a management style concept which implements both accountability and respectability. The Maestro Concept, with its emphasis on teamwork and leadership qualities rather than an assembly line approach to news production and dissemination, holds many potential solutions for the problems faced by news organizations today as a result of the new influences of digital technology and diminishing credibility of photojournalism. In a newspaper which has implemented the Maestro Concept, photojournalists would be able to return to methods of planning and direction undertaken when photo reportage was at its peak in popularity and influence. As a result, the Maestro Concept produces a better news product.

Of course, the Maestro Concept is only a limited solution in that it must be embraced by the news organization voluntarily. This concept is not a viable solution for news organizations which do not recognize the liabilities associated with misrepresenting content-manipulated photographs as factual. For news organizations such as these the only solution is a progressive one: a solution which can be imposed to protect the

public and to protect the sanctity of journalism as an informative medium. If photojournalism were to professionalize and to implement a process which includes a supervising body of professionals, accountable members, and the care and control of a uniform trademark of credibility, news organizations which insist on manipulating news photographs will find that their access to professional photographs will be limited and controlled. Access to professional news photographs will depend upon a news organization's commitment to publishing photographs according to regulated and supervised ethical standards. If the news organization contravenes the professional standards, it will face repercussions which may involve such extreme penalties as legal remedies, major fines and the withdrawal of professional endorsement and support by professional photographers. If the best and most talented photojournalists were to professionalize to protect their medium, then news organizations which decide to purchase non-professional photographs or to employ non-professional photographers would find that their selection of good visuals for news coverage would be strictly limited. In fact, the news organization might be faced with the difficulty that no photojournalists with integrity would sell or work for such an organization. In light of past public reaction and financial repercussions, this factor may be the most effective solution to ensure that news photographs are treated with the ethical integrity they merit to ensure their place as a staple and important medium in journalism.

A change in management style and the professionalization of

photojournalism will not only protect credibility of visual media, but it will ensure that photographs and photojournalism can be safely included in credible news products of the future. At present, people still believe news photographs and this concept is useful to ensure that this is protected and that the visual element to the production of knowledge can be incorporated into future media with impunity.

The Maestro Concept is well-suited to providing committed news organizations the ability to produce a synchronized, focused quality news product. Where this new management style fails to protect photojournalism, professionalization will provide the medium with power and control over its product to enforce adherence to ethical standards. This combination of new management styles and professionalization will work together to protect the credibility of news images thus ensuring its place in the news media of the future.

Figure One

Flow Chart demonstrating decision process to determine whether a manipulation affects content or style of the photograph.

Will changing the photograph affect...

Figure Two

Note that the first photograph, (a), contains the image of a man which was digitally moved from photograph (b) and placed into another (c).

B.

C.

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APPENDIX A

Figure Three

Time line of the development of photojournalism noting general changes over the last 150 years, and then the recent changes over the last twelve years.

A HISTORY OF PHOTOJOURNALISM

- 1880- March 4, Stephen H Horgan published the first mechanical reproduction of a photograph in a newspaper: the *New York Daily Graphic*.
- 1842- *Illustrated London News* was the first illustrated magazine of this type. Its first illustration was an artist's impression of a great fire in Hamburg. The impression was based on 46 daguerreotypes taken by Herman Biow.
- 1852- The funeral of the Duke of Wellington was the first major news event covered by photographers. Pictures were reproduced as wood cuts.
- 1852- A studio was opened on Harrow High Street to specialize in school photos. It still operates today as Hills and Saunders.
- 1852- US government commissioned 2 daguerreotypists to photograph American naval vessels off Yokohama.
- 1855- Roger Fenton was the first photographer to cover a battle front: the Crimea. He worked closely with Sir William Howard Russell, correspondent for *The Times*, and gave the public its first general description of life at war. Fenton used 700 glass plates sized 12 x 16 inches.
- 1859- Garibaldi was wounded in Italy, taken prisoner, and an Italian photographer took pictures of doctors amputating his leg.
- 1861- Mathew Brady, Alexander Gardner, Timothy H. O'Sullivan 1865 and others documented the American Civil War, from its beginning to Lincoln's funeral.
- 1871- During the Franco-Prussian war, photojournalists used carrier pigeons to get undeveloped film out for publication.
- 1873- March 4, New York newspaper *Daily Graphic* began publication.
- 1877- Jacob Riis employed as police reporter on *New York Tribune*.
- 1880- Stephen Horgan perfects halftone printing process.
- 1880- March 4, New York newspaper *Daily Graphic* publishes first photograph called "Shantytown" using the halftone process.

- 1882- Georg Meisenbach publishes photographs in the *Leipziger Illustrierte*.
- 1890- *London Daily Graphic* first daily illustrated newspaper founded in January.
- 1890- Social commentary *How the Other Half Lives* with photographs by Jacob Riis was published.
- 1890- Alfred Eisenstaedt, Hungarian, recognized as a great photojournalist by journalism community.
- 1892- *Illustrated London News* was using photography extensively, but only as an aid for wood block carving.
- 1894- First photographic agency specializing in pictures for illustration was founded -- Illustrated Journals Photographic Supply Company of Ludgate Hill.
- 1895- Standard Photographic Company founded, survives as Sport and General Press Agency.
- 1896- *New York Times* published a weekend illustrated supplement using halftone blocks.
- 1900- Paul Martin was the earliest photojournalist to use a detective camera disguised as a travelling bag. He took candid pictures of London by gaslight.
- 1904- January 4, *Daily Mirror*, was the first picture newspaper in Britain. Art editors were Hannen Swaffer and Harry Guy Bartholomew, and early photographers were Ivor Castle, Tom Bernard and Horace Grant.
- 1907- November 8, Harry Guy Bartholomew (from the *Daily Mirror*), devised a picture transmitter known as the Bart-Lane system on which the first pictures were wired across the Atlantic.
- 1908- Lewis Hine documented child labor.
- 1909- Robert Edwin Peary's North Pole Expedition documented his voyage with photos.
- 1913- Leica was created, images of previously unknown spontaneity became possible.

- 1914- Photography reached a new level of importance in WW1 when faked pictures became an important tool for propagandists. According to researcher Clifton Edom, many of the pictures released for publication during these years have since been discredited. These photographs also revealed the use of camouflage.
- 1916- April 4, agencies formed into Proprietors Association of Press Photographic Agencies, (PAPPA), to negotiate with authorities who were resisting requests to visit battle fronts.
- 1919- *Illustrated Daily News* began in New York.
- 1925- Ermanox still in use, also 35 mm Leicas.
- 1925- Dr. Vierkotter, Germany, invented first flash bulb.
- 1928- Dr. Eric Salomon started as freelance photographer.
- 1929- Johannes Ostermeier invented flash bulb with aluminum foil.
- 1929- Dephot-picture agency founded in Berlin. Contracted photographers; Felix Mann, Umbo, Capa, Kurt Hutton, Walter Bosshard, Harold Lechenberg.
- 1929- Short wave radio pictures received.
- 1929- An editor of illustrated weekly Graphic coined the phrase "candid camera" for Dr. Salomon's photos.
- 1929- Breakthrough of photoreportage conceived as a complete and harmonious whole, which represented the beginning of modern photojournalism. Photographs were planned on a psychological basis and attractively presented and were immediately recognized by magazines and their readers as the best and most appealing form of the photographic report.
- 1929- *Berliner Illustrierte Zeitung* devoted three pages to a series of pictures of monks. More than just a series of visual images, these photographs transported the viewer into the atmosphere of the monastery.
- 1930s- Photographers started to value "minnies" or candid shots.
- 1930- Walter Bosshard's first photoreportage debuted; he produced famous photos of Ghandi.

- 1931- First picture story with photographs and accompanying text was published in the *Die Berliner Illustrierte Zeitung*.
- 1934- First newsphoto network, a 10,000 mile circuit, was formed.
- 1934- Philips perfected wire-filled flash bulb.
- 1935- Associated Press Wirephoto network started with 40 members and by 1964 had 700 members.
- 1930s- Under director Roy Emerson Stryker, the Farm Security Administration took some 270,000 photographs of rural mid-America.
- 1936- *Life* was founded.
- 1937- *Look* was founded.
- 1938- *Picture Post* (UK) founded.
- 1939- Bill Brandt, pupil of Man Ray, took up photojournalism.
- 1939- Dorothy Lange and Paul Taylor publish *An American Exodus*; a visual narrative where text and images were closely related.
- 1940- Kodak produced Kodatron electronic flash equipment.
- 1941- Photographic units founded in Navy, Army, Air Force.
- 1941- Walker Evans and James Agee publish *Let Us Now Praise Famous Men*: a visual narrative without text.
- 1942- Photojournalism was accorded status in an academic environment by Frank Luther Mott at School of Journalism, University of Missouri, Columbia.
- 1943- Navy Public Relations asked Acme, AP, International News and *Life* to form a picture cooperative. Spent \$400,000/year on photos with 28 photographers on assignment.
- 1948- National Press Photographers Association founded.
- 1949- *Match* -- precursor of Paris-Match refounded. But most photomagazines were closed or soon to be closed by mid-sixties.

- 1949- Norman Hall, then photo editor of *The Times*, used a single photograph, chosen for pictorial not news value, across half page with great effect.
- 1968- Scientific Technology was first developed in Israel by Eli Arazi to design wallpaper and fabric.
- 1979- Arazi used aspects from Scientific Technology to found Scitex, a workstation for image processing and it entered the publishing market in this year. It included software for the manipulation of photographs
- 1980- Colour photographs became the preferred venue.
- 1982- *National Geographic*, February, 1982, published digitally manipulated cover photograph without notice. Public reaction was uniformly negative.
- 1984- The first successful transmission of a colour photograph negative over phone lines to the photographer's headquarters occurred July 30.
- 1984- Most Olympic coverage was digitally manipulated by production personnel to enhance the blue of the sky in outdoor images.
- 1988- The Associated Press covered the Democratic and Republican Parties' national conventions and summer Olympic Games from Seoul without producing a single photographic print for transmission
- 1990- Associated Press encourages its member news organizations to switch to digital technology to process photographs.
- 1991- Photographers attend MacWorld Expo and find their expertise in chemical photography is quickly becoming obsolete.
- 1992- Kodak introduces still video cameras to the public.

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