Chapter LVI
Digital Photography

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ABSTRACT

Digital photography is a relatively new topic for scholarly study in the area of computer mediated communication. Photographic technologies were only first computerized in the 1990s, but have rapidly supplanted older film technologies for a majority of professional uses. Digital photography has not simply substituted silicon chips for film, however, but has brought about rapid changes throughout the photographic process as photography entered the realm of information technology. This chapter presents a typology for approaching the study of photography as a form of computer mediated communication, and then presents several examples illustrating the consequences digital photography has for amateurs and professionals. Examples include photojournalism, scientific photography, photography in the legal system, and personal photography. The chapter ends with a call for additional research into the social aspects of this ubiquitous form of computer mediated communication..

INTRODUCTION

Digital photography rapidly emerged as a technology during the 1990s and achieved high levels of adoption during the first decade of the 21st century. This new computer mediated form of photography had long been anticipated. Vannevar Bush (1945) discussed the development of photographic technology in his influential *Atlantic Monthly* article "As We May Think." Among his predictions were miniature, wearable cameras, capable of holding 100 images, that used fixed focus and auto-exposure to achieve high-quality results. He also predicted that "dry" nonchemical photography could result by developing still cameras that used similar principles to television, using moving beams of electrons to record images. While the details of the modern process differ from Bush's predictions, by the 1990s digital cameras were developed that achieved these feats and more.

Digital photography has all but replaced traditional film photography in recent years. By 2006, all the major camera and film manufactur-

ers had discontinued the manufacture of most types of film and film cameras. Minolta, in fact, went so far as to cease all production of cameras and film, abandoning their photography division entirely in March 2006. While there has been some attention to how this shift away from film and away from traditional camera manufacturers has affected companies in the photo industry, many of the most interesting consequences of digital photography are reflected in the use of photography by professionals. This chapter will discuss these changes.

Digital photography is not always thought of as a typical computer mediated communication (CMC) format. Part of the reason for this is that photography is a long existing medium which for most of its existence was not connected to computing in any fashion. From the mid-19th century until the 1990s, photography was a purely analog medium, using light and chemical processes to inscribe images. However, the introduction of the combined package of digital cameras, scanners, editing programs like Photoshop, and the widespread popularity of these packages has created what some call a revolution in photography. This revolution moves photography into the realm of computer mediated communication as computerized photographs are shared on Web pages and photoblogs, published on Internet news sites, and transmitted via networks by scientists, police and other professionals.

Although relatively little research has been done on digital photography as a form of CMC, there is growing interest in this research area as more scholars study the role of photography in specialized workplaces. The digital revolution in photography has computerized this communication medium and promises (and often delivers) fundamental changes in the way people do their jobs. This chapter identifies various types of people who work with digital photography, and highlights several domains in which photography plays an important role as a form of computer mediated communication. The domains discussed here represent the areas with the most scholarly research activity, and also are good illustrations of the wide variety of communication uses that photography enables.

BACKGROUND

Cameras are used by a wide variety of people for an equally wide variety of purposes. Photography is an egalitarian art form. Unlike painting or sculpture which generally require relatively extensive skills and training before the amateur is able to produce a piece that recognizably represents reality, the camera allows even the rankest of amateurs to produce an image that allows easy identification of its subject. While additional training and practice can help distinguish gifted photographers from the masses, the fact that automatic exposure and focusing allows anyone at all to produce a decent image makes photography unusual. This democratizing nature of photography has been recognized since the medium's earliest days. In 1839, the inventor of the Daguerreotype wrote, "By this process, without any idea of drawing, without any knowledge of chemistry or physics, it will be possible to take in a few minutes the most detailed views, the most picturesque scenery, for the manipulation is simple and does not demand any special knowledge, only a little care and practice is necessary in order to succeed perfectly" (Daguerre, 1839/1980).

The result of this ease of use is that cameras have become ubiquitous in much of the world. Masses of people armed with cameras and cameraphones stand ready to document people, places and events at a moment's notice. Given this fact, how can one even attempt to come to some understanding of such a widespread phenomenon?

Faced with such a daunting task, it is helpful to break down various types of photographers using a simple but ultimately helpful typology as shown in Table 1.