Digital Photography

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Abstract

Crimes refer to actions that are committed and are against the law. Crimes are committed by criminals who have no regard for the law. The laws of a nation are meant to protect it by according people safety ensuring that there is no crime in the country. Because of the criminal activities existing in the environment, there are organizations formed to handle crimes so that the level of transgressions can reduce. This is because criminal activities disrupt people's way of life by interfering with their plans and indulging them. With the changes taking place in the environment, criminals have also kept up with the changes hence adopting new ways of doing crime. Technological advancements have improved some criminal activities since criminals use different technology to bypass the set standard and escape without being caught. Due to criminals using sophisticated technologies in their crimes, the people concerned with catching criminals have also adopted using technology to catch the criminals. One of the ways invented by technology is the use of digital photography in investigating crimes and catching offenders.

Digital Photography

Digital photography refers to the process of taking photographs by the use of digital cameras. Digital cameras are a new type of camera that is electronic and produce digital photos (Kelby, 2020). It also involves using computers and other electronic services to capture, edit and store photos taken. Digital photography relies on three other essential electronics services: electronic cameras, computers, and specific software designed for digital photography. Because of the combination of cameras and computer services, digital photographs can be edited and changed according to the needs of the people. Digital photographs can be edited to change their texture and brightness depending on the environment where it is used (Phatak & Borkar, n.d.). Because of the ability of digital photography to be modified whenever needed, it can be used in various environments.

In the field of forensics, digital photography can be used to investigate crime. Digital cameras are used in forensics and investigation for different purposes. First and foremost, digital photography is used in taking digital photographs at different crime scenes (Gouse et al., 2018). Because of how crime scenes differ, digital cameras are used to take photos of the crime scenes. Crimes can occur at different places such as mountains, roofs of buildings, dark places like caves, and bright, well-lit areas. As a result, some places can prove challenging to reach for people to take photographs; for example, when a crime occurs in the middle of the day when the sun is bright, it would be challenging to take photos without proper equipment. Due to digital photography, however, they can be used at any place, during the day or night. This is because they are adjustable and can be adjusted to suit the requirement of the given environment.

Digital photography is also used in crime scenes to capture some shreds of evidence that cannot be physically seen. Digital cameras can capture different images depending on the quality of the digital camera. In crime scenes, especially those involving major crimes such as murder and burglary, it would be difficult to notice some things. Also, it is easier for one to miss a critical detail at a crime scene because of the time pressure. Missing a crucial detail in a crime scene can lead to the people escaping and not getting punished while they continue to cause suffering. With the use of digital cameras, however, different details of a crime scene get captured. This is because photographs can identify very tiny details that the naked eye can get. Digital photography, therefore, adds to the images in the crime scenes so that all crime scenes are revealed. As a result, people who commit crimes can be caught using the tiny details caught on digital cameras.

Digital photography is also used in other areas of crime investigation, whereby it can be used to identify criminals. Digital cameras have a high resolution and can capture even images of criminals escaping the crime scenes (Bennet & Bourassa, 2020). When digital photographs capture images of criminals, for example, their facial image, the images can be used to catch the criminal. Whenever a criminal commits an offense, he/she may go into hiding, allowing them to go unpunished. However, with digital photography, criminals who escape crime scenes can be traced to their hiding areas and punished by the law. By using a digital photograph captured, the image of a criminal, especially those who are seriously wanted for committing serious offenses, can be spread to the public to notify the people of the criminal living among them. Using such images of criminals allows people to recognize them and report them to the relevant authority. A digital image can also be shown on televisions and social media platforms so that people who identify them can report them and be dealt with by the law. Digital photography, therefore, is used in catching criminals and prevent them from escaping unpunished.

Digital photography is also applied in crime scene investigation to identify important events in the place. Whenever a crime occurs at any place, the photographs of the place are taken in high quantity. Using digital cameras allows for taking different photographs of the crime scenes at different angles. Photographs of people moving around the crime scenes are also taken. This allows for in-depth analysis of the crime scene so that significant features such as the terrain, tidemarks of cars, people moving around and people who appear to be suspicious, and footprints can be identified. When evaluated on digital computer software, the photographs can be more revealing, whereby footprints can be used to trace people and question them. Therefore, the photographs taken at a crime are used to understand the crime scene better so that it is translated and used to identify the criminal or perpetrator. It is utterly significant to understand a crime scene so that the intention or motive of the offender can be identified. A motive can be used to trace a criminal whereby close associates are interviewed. This allows for the catching of the criminals to be punished as recommended by the law.

Digital photography in crime investigation also entails the use of digital cameras that have inbuilt Wi-Fi. Today's world has changed so much that the internet has become an essential part of people's lives. As a result, different devices and gadgets are built with Wi-Fi to connect them to the internet. Cameras with an inbuilt Wi-Fi can be essential in crime investigation. Firstly, because of the inbuilt Wi-Fi in the digital cameras, different departments that engage in crime investigation can share and transfer photos easily amongst themselves. Digital cameras with inbuilt Wi-Fi can also be connected to mobile phones, increasing the sharing of images between different departments involved in the investigation. Wi-Fi is an essential part of digital cameras because it promotes sharing of photographs among different departments involved in crime investigations.

**Advantages of Digital Photography in Investigations**

There are many advantages that digital photography brings to the field of investigation, helping to catch criminals. One of the advantages of digital photography in crime investigation is that digital cameras used in digital photography are built with a high resolution enabling them to capture quality images of people and evidence (Bennet & Bourassa, 2020). High resolution also means that the captured images are more precise, creating a good distinction between the photographs taken. Compared to film cameras or cameras that are not digital, the digital cameras used in crime scene investigation offer superior quality images. Quality images can easily be distinguished in a photograph, and this is an essential investigation because clearer images can be easily interpreted and bring no confusion to people involved in the investigation. Also, digital cameras can capture images at a further distance (Cai et al., 2019). This quality enables them to be helpful in getting images of offenders and suspects before they escape. The images of criminals captured from a distance can be used to trace them.

Secondly, digital photography entails the use of digital cameras that have little weight. Weight is a critical subject when it comes to cameras. While some cameras have more weight and are bulky, digital cameras have low weight and are less bulky, enabling the people who use them in forensics and investigations to carry them around wherever they may need. Portability is essential for cameras since it makes them easier to carry. Because sometimes forensic investigations happen at places that make it difficult to access heavy cameras, digital cameras would be easier to carry. When a crime, for instance, happens at a seven-story building with no elevators and people have to use stairs to access the buildings, it would be difficult to carry heavy cameras. Digital cameras, on the other hand, have lightweight and can be carried even to rooftops whenever they are needed.

Another advantage of digital photography in crime-solving is that digital cameras produce images instantly; therefore, there are no long waits involved. Speed is an essential quality that cameras offer. The cameras with faster speeds are essential for forensics and investigations because they enable the investigators to access the images immediately. This is important because in an investigation, the more time people waste, the likelier it is for the criminals to escape through evidence tampering. When criminals escape and avoid capture because a camera took a long time loading before producing images, they are liabilities rather than assets. Digital photography involves producing sharp images that can be viewed the moment they are produced. This is different from old film cameras that take more extended loading time to produce images. Because of their slow speed, criminals can easily evade capture because investigators have to wait more extended periods before viewing the images. The new technological advancements provided for digital photography allow investigators to use cameras with fast speed and produce images quickly.

Digital photography enables the people involved in forensics and other investigation to edit the images while still on the cameras (Kaur et al., 2020). The quality of editing the images while still on the cameras allows the people involved in forensic investigation to edit the images to suit their needs. Editing is a crucial part of photography because it makes images more evident. It also improves the lighting of the images that are not seen well. In crime scene investigations and forensics, generally clear images are needed because they enable people to avoid errors. When people who conduct investigations make mistakes, other people can suffer. This is because it can capture a person who is not the offender but has a close resemblance. Digital photography thus helps avoid the errors associated with film photography.

Another advantage of digital photography in crime investigation is that it encourages memory cards and flash disks to store the photographs' information. Memory cards are microcards that can be used to store extensive data, including photographs (Butler, n.d.). The essence of memory cards is that they enable people to store large quantities of data on a small card. The memory cards and flash disks are portable and can be carried to any place. Memory cards also encourage easy sharing of the photos on social media and to other concerned agencies. Sometimes, agencies might need photos of a criminal or a crime scene, and because of fear of the photo getting leaked, they can store them in encrypted memory cards or digital cloud storage to provide extra security to the documents and images kept on memory cards. When compared to the old film photographs that did not use memory cards, they emerge superior because memory cards can be easily stored and do not occupy large space occupied by the films. Also, memory cards used by digital photography can be inserted on computers by the investigators to view the photos taken on a larger screen so that images appear more evident.

**Shortcomings of Digital Photography in Crime Investigation**

Despite digital photography having many advantages, there are some shortcomings associated with it. One of the disadvantages of digital photography in crime investigation is that it is expensive to purchase digital cameras. The cost of buying digital cameras is too high compared to other cameras like the old-fashioned film cameras. Since the initial cost of buying digital cameras is too high, they are not affordable to all organizations that deal with the investigation. As a result, some police organizations cannot afford to use the digital cameras at all their investigation departments meaning that they will not be able to work optimally to investigate crime and catch criminals. Some criminals can evade capture by the police; hence, they continue with the life of crime, making other people suffer.

Another disadvantage of using digital photography in crime investigation is requiring the operator to be computer literate. Computer literacy refers to the skills of an individual to operate and manage a computer (Makhumudov, 2020). Computer literacy is an essential skill in operating digital cameras. They are needed in editing photographs to suit the need of the users. Without computer skills, it would be difficult for people using digital cameras to operate them well. On the other hand, film cameras do not require one to possess computer skills to edit the photos to suit the needs of the investigators. Computer literacy requires training from people in that people have to be taught the skills required to manage and operate a computer to edit photos and save them. The training needed to manage computers is an extra cost that can be avoided.

Because of the constant technological advancements going on in the environment, other digital cameras are consistently manufactured, meaning that people's use in investigation becomes out of date quicker than expected (Bughin et al., 2018). When cameras become obsolete, they cannot serve their purpose. Cameras failing to serve their purpose implies that they have to be replaced, which would add to the cost. Because of the high cost of purchasing digital cameras, the government and the police body concerned about spending a considerable amount of money to purchase them whenever they become obsolete. Obsoleteness of the digital cameras comes at a quicker rate compared to other cameras, such as film cameras. Digital cameras thus add constantly add to the cost involved in investigations in that money that could be used in catching offenders is used to improve the obsolete ones. Because money is a scarce resource, extra costs incurred are considered inconveniences to crime-solving and investigation.

Digital photography in crimes investigation also involved digital cameras that consume batteries more than other types of cameras. The digital cameras are manufactured in a way that they do not last long with their batteries. Them not being able to keep batteries for more extended periods causes an inconvenience to people who use them in an investigation. Since investigations can take people to remote areas that do not have access to electricity, the digital camera batteries do not last long, and without backup batteries, they may fail to perform their tasks. Cameras failing to perform their tasks means that crime investigation will be derailed, and criminals might go scot-free. Failing to catch and punish criminals will lead to them continuing with their criminal activities hence terrorizing people.

**Conclusion**

The advancements in technology have impacted investigations of criminal activities in different ways. The technologies used in the world today are used in various instances, some of which help in catching criminals. Digital photography is one piece of technology that has affected crime-solving positively. Digital photography provides better images that are clearer, enabling investigators to track offenders and prosecute them. Digital photography has impacted crime-solving in many different ways since people who commit offenses can be arrested and dealt with. Despite the benefits that digital photography brings to crime-solving, there are some shortcomings associated with it. The shortcomings bring about problems in the investigation. It is, therefore, necessary to appreciate the positives that digital photography has helped achieve and correct the wrongs.

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