

Digital camera



Technology within the last fifty years has evolved drastically because of the introduction of computers. This technology remains changing, mostly for the better as a multitude of public and private corporations do their research and development to elevate mankind's way of life into another level of advancement. One most notable change in the people's everyday lives is the evolution of photography.

From bulky cameras, film and hour-long photodevelopment came the instant, flashy, sleek and compact digital cameras that can take photographs and can store them instantly electronically. This paper provides a critique of Thom Hogan's (2009) article, "How Digital Cameras Work." Catching moments and having a souvenir for it are the main points of why people take a photo. People can be sentimental and so, a camera is a gadget that almost every household have. However, there are so many people out there who do not have the zest and passion for photography and the science behind it.

Majority of users do not understand their digital cameras and the author, Thom Hogan, wrote the article to help these millions of people to get to know how a digital camera works and it is often not wise to rely on the adverts or express warranty a manufacturer claims, as more often than not, those claims are not true, scientifically speaking. The opening notes of the article says this much and this is a catchy enough way to get attention of even uninterested users.

The main concern about the article, is that, even though it is written for people without photography background, the terminologies used seem to be strictly for photographers. For instance, a lot of average users of digital cameras do not know the difference between 28mm vs. a 35mm cameras

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and the author used the “ 35 mm” term as though everyone would understand what it means. The author could have set up a terminologies page to help the average users understand the article better. That being said, this paper shall now discuss the rest of the article.

The author tackled first the functions of a camera’s sensor. This is of course the silicon chip on a digital camera which has two kinds: CCD and CMOS. CCD and CMOS are explained by author in the next part which is a smart move considering that this article can be used for basic digital photography and some technical terms must be already infused. CCD, according to the author, is an old technology while CMOS is the sensor of today and this sensor shall be the one referred to for the rest of the paper.

The author mentioned one brand that designed a good CMOS sensor and that brand is Nikon. Such mention of brand can raise eyebrows as one would think whether this particular author has been paid by Nikon to advertise the brand’s sensors on a variety of users, after all, who is better to trust than an expert in photography? Next, the author mentioned photosites within the sensors. Photo diodes are the light sensing portion of photosites and they cannot cover the entire sensor as there are “ non-light responsive spaces between diodes”.

This statement by the author can be considered a fair warning to digital camera users. As early as this stage, they know about the limitations of digital photography, that not all sensors are good at sensing light, which is essential in taking photographs. Again, the author endorsed Nikon and Fujifilm cameras as exception to the sensor rule. He described how certain Nikon and Fujifilm sensors (actually named camera models) have overcome

this limitation in digital photography. The author proceeded to describe light and sensors the way a physicist would.

This is again more confusing to the average reader or even photography novices. Next, the author mentioned that a camera sees in black and white and he described how cameras produce colours in different ways. The different ways the author described are wonderful insights into photography and it can get users more valuable information on how they would like to use their camera sensors. More people tend to prefer photographs with vivid colour. Lastly, the author described how to get data from the sensor of a camera.

Essentially, he told users the more manipulations done to a camera, the more the image gets further from its original form (adjustment of colour, brightness and even simple JPEG conversion). This is another essential information as some user prefer realistic images over bright colours. Overall, the article is highfaluting one, especially for normal, average user with no inkling for photography but it provides valuable information to those with photography background and would like to know more about the art.