The Significance of Photographic Education in the Contemporary Creative Industry 4.0

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Abstract: Since the first the image or photograph was first found around 1800, has become one of the fundamental elements of communication in human daily life. Those images which come from various sources from electronic and printed media contain various types of messages. Fundamentally all these images can be clustered into two major of ‘realistic’ and ‘interpretative’ strands. It functions encompass a broad range of contemporary living, from communication, the economy, education to art and culture. It is therefore, all images even the simple one requires to be understood by the large of society. Its importance is like a verbal and written languages. In some parts of the nation especially some developing countries however, image or photograph or can be referred as photographic education has not been given a proper position or is not well flourished in their formal Education System. Arguably, the subject of image-based or photographic education is given as secondary importance in education hierarchy ranging from the lower level of primary education to the highest level of tertiary education. Its importance has not been given as important as others established subjects like mathematics, business and others. This paper therefore, aim to analyse and highlight the significance of the theory and practice of image-based subject as important as others subjects in the formal education sphere. This paper can be concluded that visual images in education lies between two continua – the theory of epistemology (knowledge) and the theory of learning. The study argues that the importance of visual images in education provides significant opportunities for the development of individuals and for social, cultural and economic development. Photographic education can provide a platform for visual intelligence competencies of visual thinkers, specialist visual practitioners and contributes to visual literacy. Finally, photographic education is recommended to become as one of the subjects to offer at various levels of lower, middle and tertiary education in the formal education system.

Keywords: Photography, education, image, visual, communication.

I. INTRODUCTION

The Industrial Revolution 4.0 has become of a new impetus or impulse to the process of transformation in human daily live. This is an eventually a process of transformation and revolution where various areas are involved such as services and production in education, economic, production, media, transportation and others are involved. Everyone is concerned about the process which has become as one of the main topic of discussion elsewhere and everywhere.

Fundamentally, the Industrial Revolution is related and involved with the fundamental change in the way products (goods & services) being produced, delivered & consumed. Vries (2008) defines industrial revolution as a generic term, “refers to the emergence, during the transition from a pre-industrial to an industrial society, of modern economic growth, i.e. a sustained and substantial increase of GDP per capita in real terms.” (2008, p. 158-161).

The Industrial Revolution 4.0 has spur and stimulus directly toward the transformation in education world. It demands changes and transformation in the contents not particularly in the technical and vocational education, but as well as in the general education of various from lower primary, secondary to the tertiary education levels. The whole education institution including administrators, academicians, students including physical facilities are required to be ready and will be affected with this development. It is urged that the syllabus across disciplines especially involving new contents, skills and knowledge including information technology and the advancement of digital technology are required to be added. Apart from that, probably new educational programs will have to be established and developed to meet the current and future demands. With this current development, it also affects the development of media, visual (images) and communication areas of studies including photographic education. All these subjects are also related with the development of contemporary creative industry 4.0 which align with Industrial Revolution 4.0 that become as one of the significant industries in the current global development. The subject of photographic education is directly involved where images from conventional method or analogue mode are shifted to digital technology advancement. The result from this revolution, the production processes are faster, cheaper and easier to deliver. Even though image is easily can be obtained, nevertheless it requires someone certain levels of competencies of understanding, reading and interpreting images rationally.

The contemporary creative industry 4.0 can be described as the contemporary development of creative industry in relevant with the Industrial Revolution 4.0 where the focus on producing goods and services is based on automated system. It is therefore, the areas of practices in the contemporary creative industries especially involving three major components of creative culture, creative economy and creative science and technology which also involves image-based production or photography will be directly affected. It is urged that we cannot neglect and left behind with the current global development with emphasising on the...
automation in the current of industry. This creative industries practices are required to be on par with the current global development to enable for the industries to be relevant and fundamentals in human civilisation.

The invention of photography has become one of the predominant necessities of daily life in both the developed and the developing world. Its significance encompasses a wide range of areas of daily lives from social, cultural and economic to educational spheres. The role of photography particularly image or visual as a part of communication is becoming predominant across all cultures. It has been utilized across wide ranges of print, electronic and other forms of media such as in advertising and commercial, journalistic, video and filmmaking, medical photography and fine art photography. In Malaysia and some parts of the developing countries however, photography or visual image or image-based as a subject of study is not well flourished in their education systems. Arguably, photography is given as secondary importance in education hierarchy along with other major established subjects. According Mustaffa Halabi (2006) photography is a past time subject, which interest mainly to serve as a mean of producing skilled photographers and technicians. It importance in educational institutions is under rated. In his words;

It is only being perceived as a technical medium or merely a mechanical tool to record images for personal purposes. Its application is considered to be dependent upon an individual’s ability, and hence has been given a lower status within the educational curriculum when compared with other established fields like engineering, medicine, information technology and business.
(Mustaffa Halabi, 2006, p. 37)

In support, Newbury (1998) also argues that photography is normally professed in a shallow term as a form of technical training which lacking in broader context of intellectual properties. This ‘essay-based paper’ therefore, aim to analyse and highlight the significance of the theory and practice of image-based subject as important as others subjects in the formal education sphere.

II. THE STRANDS OF PHOTOGRAPHIC IMAGES IN COMMUNICATION

In Sturken and Cartwright (2004), “The world we inhabit is filled with visual images. They are central to how we represent, make meaning, and communicate in the world around us” (2004, p. 1). They are emphasising that in contemporary culture, our daily life increasingly relies on visual images including photographic images. Our environments are filled with thousands of visual images that comprises of many different forms of medium i.e., photographs, illustrations, prints, films, videos, cartoons and advertisements which offer different types of messages. These visual images can be said to have played a very significant role for its competence and capacity to communicate instantaneously and universally across different cultures. According to Sturken and Cartwright (2004) further such phenomenon can provide different types of purposes for its intended outcomes in cultures that increasingly pervaded by visual images. These images can be produced in us a wide range of emotions and responses such as pleasure, desire, disgust, anger, curiosity, shock, or confusion (2004, p. 10). Therefore, the emergence of visual culture in the contemporary daily life in general has become increasingly demanding in as much as in educational fields; cultural studies, art histories, visual communications, new media, sociology, anthropology as well as in science and technology.

It is significant and important to highlight that when someone is asked what photography is, then the common answers are about photographs or pictures or camera or names of camera such as Nikon, Kodak, Pentax, Canon, Olympus and many more to mention. The majority of public referred and perceived that photography is merely as a hobby that serves the purpose to take pictures which contains no intellectual properties. Furthermore, with the advancement of mobile or smart phone today, everyone can take as many pictures on whatever and wherever they want. All these images can be stored in the phone and it is easily can be browsed at anytime and anywhere. Therefore, it is significant to pose a question that why photography can still be survived until now? Is it because of the tool or camera or photographs or images? Let take a moment to ponder and think, Kodak at one time was famous brand name in the photography world. Cameras, films, projectors and few to mentions are conquered by the brand name of Kodak. But why today is no longer in the market? The company had tried the best to sustain but the company failed to continue the business and declared bankruptcy in January 2012. Don Strickland, a former vice-president, who left the company in 1993 sadly mentioned that because even then he couldn’t persuade it to manufacture and market a digital camera. In his words, “We developed the world’s first consumer digital camera, but we could not get approval to launch or sell it because of fear of the effects on the film market.” (Don Strickland cited in Usborne, 2012).

Subsequently, it is important and significant to mention that photography which comprised of tool or camera and photographs or images are still can be survived and practiced until now is mainly because of the ‘contents’ or specifically referred to photograph or picture or image. Photographs or pictures or images are the yielded from the mechanical device of tool or camera. It is relevant to note that tool or camera is a mechanical device which can be produced and enhanced by technological invention and revolution. Its application is the same with other tools such smartphone, computer, car, machine and many more to mention. The invention and revolution are keeping on changing from time to time which can be obsoleted depending on the time and space. It is therefore, we cannot rely too much on the invention and revolution of the tools or in photography is known as camera. These cameras can be categorised into two types of camera which serve to produce still images and a type of camera which produces moving images or popular known as video. Both types of still and moving images play very important medium in delivering various types of contents and messages that becomes as a part of human civilisation or culture.
It is relevant to mention that, with the latest technology advancement, images can be easily captured and recorded by latest digital cameras or gadgets such as smartphones or handphones. Images can be easily captured with good quality hence later can be transmitted or distributed everywhere very fast and without incurring any cost. These images as a result can contribute a great impact to us whether the message is positive or negative impacts. Take for an example for the case of a well-known Bangladesh photographer and social activist Shahidul Alam where he was detained by Bangladesh’s Information and Communication Technology Act (ICT). According to Smyth (2018) that the main reason he was arrested and charged after he posted to Facebook a ‘video’ about ongoing student protests in Bangladesh. The purposes for the student protests is against unsafe roads, in which he said that these actions stemmed from anger about widespread government corruption.

Fundamentally, the discussion of any photograph or picture require be considered within two main strands. The first is the nature of photography as realistic or within descriptive form and the second is the subjective or interpretive form with its own codes and conventions. Therefore, it is important to note that every single photograph or image is belonged to this fundamental property regardless of family photograph or artistic photograph. Further than just as function to record realistic form of activities, photograph also offers as a function of mirror that offer for interpretation of conveying something beyond the surface of image (Clarke, 1997; Berger, 1998; Wright, 1999; Barrett, 2000; Newbury, 1995 and Mustaffa Halabi, 2013). This is also highlighted by Wright (1999).

The popular notion that seeing is believing had always afforded special status to the visual image. So when technology was invented, in the form of photography, the social and cultural impact was immense. Not only did it hold out the promise of providing a record of vision but it was able to make such a representation enduring.” (Wright, 1999, p. 2).

Photograph in the Realistic or Descriptive Form

Therefore, it is significant to mention that every photograph that we captured is a referent from outside world. It has its own significant qualities where we can see clearly on the two-dimensional (2D) surface. This kind of photograph or picture can be said to represent something real or real things that have special characteristics, it “looks like the thing it represents” (Wright, 1999, p. 13). It is only isolated separated from three dimensions of real subjects or real world and the two dimensions of photograph or picture by space and time. It is also known as ‘window on the world’ or descriptive standpoint which reflects to the domain of discussion of the above photograph. As emphasized by Ismail Abdullah that, “Photography, I assumed, possessed these stereotyped qualities: a direct record, accurate visual facts and truthful evidence. Photographic images seem to be seen, by most people, as an authentic form of documentation.” (Ismail Abdullah, 1995, p. 30). However, due to the advancement of digital technology today, manipulation of images by computer enhancement can easily be done by many people. This is highlighted by Kamarudzaman, Mustaffa Halabi and Adzrool Izwan (2008) that a computer manipulated images are appeared to be a threaten of truth of real photographic images today. This brings some impacts to some peoples about the truth of some images which are produced by some areas practices including photojournalism. On the other hand, it is believed that this matter is not become as a major issue to be worried because today we too many photography professional practitioners or experts which able to solve this issue ethically and professionally. Furthermore, it is suggested by Barrett (2000) that any discussion within the descriptive information or standpoint about a photograph should include several fundamental elements: subject matter is about the main subject or main character in the photograph; form is how photograph is visually composed with proper composition; medium is involved with that what type of medium of photograph is produced and finally is causal environments which include information about the photographer who produced it, the times which relate when it was produced, and also the social environment.

Photograph in the Subjective or Interpretive Form

It is important to note that the art underlying photograph is not just restricted to the surface of the image, but as well as something beyond the surface of the image. According to Mustaffa Halabi (2013) that, “The medium of photography is not limited to what we see with our eyes, but equally include what we perceive through the mind.” (2013, p. 15). Barrett (2000) once says that all photographs, even very straightforward, direct, and realistic-looking ones, need to be interpreted. They are not innocent, free of insinuations and devoid of prejudices, nor are they simple mirror images. They are made, taken, and constructed by skilful artists and deserve to be read, explained, analysed, and deconstructed (Barrett, 2000, p. 37). It is therefore, the photograph is not limited to what we see with our naked eyes, but also with our minds. Photograph is like spoken and written language where it has “its own grammar and syntax” (Clarke, 1997, p. 27). It becomes as a part of communication medium. As emphasise by Sturken and Cartwright (2004, p. 12) that, “We use words to understand, describe, and define the world as we see it, and we also use images to do this.” (2004, p. 12). The grammar of photography is referred to the order in which visual elements are selected, isolated, related to other elements, or otherwise emphasised to construct a picture. This photograph therefore, belongs to the process of explanation for all the described aspects of a photograph and to posit meaningful relationship between all aspects (Barrett, 2000, p. 37). It is related to the study of “semiotics, or the study of sign which involve the understanding about the representation of any image, text and sound. As highlight by Bate (2016) that “Semiotics makes a distinction between the photographic signifier (the photograph) and the signified (concept). Photographs require a spectator to give picture its signified meaning. (2016, p. 33). Therefore, it requires intellectual skills for someone to digest and interpret those photographs rationally and intelligently.
III. THE SIGNIFICANCE OF PHOTOGRAPHY IN EDUCATION

Lazlo Moholy Nagy once quotes that “knowledge of photography is just as important as knowledge of the alphabet” (cited in Lee, 1991, p. 12). He believed that the potency of pictures is importance as is with the written word. For Shacklady (1997) that the significance of picture possesses great advantage over written word where it does not require someone to translate the contents of any image in different languages, races and places because any image able to speak for itself (1997, p. 77). A wide range of fields such as medicine, newspapers, advertisements, education, crime detection and investigation and leisure activities rely heavily on photographic images. Thousands of images which are scattered around us offer various information and messages. The significance of visual image (photograph) as a visual language is not only focussed on ‘realistic form’ as if it is a ‘window on the world’ which reflects on a “the willed tendency of art to approximate to reality” (Levin, 1963 cited Wright, 1999, p. 39). It also must be viewed as an expressionist or interpretive form, which emphasises on “a quality of expressive emphasis or distortion, to be found in the works of any period, country, or medium” (Bullock and Stallybrass, 1977 cited in Wright, 1999, p. 39). In other words, photographic images contain characteristics which can be interpreted as if applied to written language. They appear “in all forms and levels of meanings” (Barry, 1997, p. 72), which can be in the form of informative, manipulative or ideological implications. Tagg (1993) also advance argument that visual images (photographic images) are required to be explored the meaning as if we practice in creating or writing a complex sentence rather than focussing on reading of a single word. This can be followed by the work done by Clarke (1997) who urge that visual image (photograph) cannot not merely focussing on ‘seeing’ which entails a passive act of recognition. Its important on the other hand, involves the process of ‘looking’, which implies an active act of recognising, reading and analysing. Recently, Mustaffa Halabi (2006) add to emphasize that the essence of photography (photographic image) can be not just to confined to its purpose as a mechanical device to record realistic subjects focusing on technical skills competence and its characteristics on the surface but to its importance that “must be viewed from a wider perspective of visual literacy, which requires someone to possess intellectual characteristics to enable him/her to read, to understand and to digest images intelligently” (2006, p. 3). As a result, it is urged that each individual is crucially required to possess fundamental competencies in reading, analysing and understanding the visual images. A visually literate person is someone who has the ability to discriminate and interpret visual actions, objects, symbols, and other characteristics, while gaining meaning from them. (More, 2005 cited in Mustaffa Halabi, 2006, p. 80). Photography in education is not only focussing on what we see with the eyes; but it involves what we see with the mind, which is involved the process the creativity of thinking and analysing. As argued by Palti (2017) the next industrial revolution will not be focussing on the automated system or machine but probably will shift to focus on the creativity standpoint. The importance of photography in education therefore, need to be placed on par with other subjects (Newbury, 1998; Mustaffa Halabi, 2006 & 2013). It requires to be appreciated and valued by society at large in order to achieve recognition. Photography is suggested to be placed justifiably as important as other fields in education sphere.

Hein (1998) outlined three components of educational theory which are relevant and essential of photography in education world. These theories are a theory of knowledge (an epistemology), a theory of learning, and a theory of teaching (pedagogy). The theory of knowledge (epistemology) is referred to photography as one of the subjects in education sphere. Photography is a subject or a knowledge that requires someone to learn and study. Its importance lies in both of external and internal worlds. The external world is referred to a type of knowledge which is guided or guided from something from real world. Knowledge is achieved by the learner from a real object on the real world. The learner therefore, is required to possess technical skill ability competency for photography practitioner to practice professionally. This knowledge is known as ‘realism’. Meanwhile the internal world is knowledge which does not achieved from the real world, but knowledge is argued resided in the mind of the learner. It is therefore, the process of attaining epistemology or knowledge of photography is something which the learner has to learn not only by the process seeing and looking, but the learner must be able to think with mind in order to understand, digest and analyse intellectually. This process of acquiring and attaining knowledge is known as ‘idealism’. Both worlds – external and internal are relevant in photographic education. As emphasized by Dewey (1938) that the external and physical side of activities cannot be separated from the internal side of activity; from freedom of thought, desire and purpose (1938, p. 61).

Meanwhile the theory of learning is addressed on the fundamental process of application toward the attainment of knowledge. This is about the learner attains and gains knowledge. There are four types the theory of learning which outline by Hein (1998) as show in the Figure 1.0. The first theory of learning is didactic or expository. This incremental learning refers to the learner attains knowledge is in incremental or bit by bit process. The knowledge is gained through a “sequential process with a clear beginning and end, and an intended order” (1998, p. 27). The second type theory of learning is stimulus response, which reflects to the types of learning through response. Knowledge is gained by the learner through a process of respond to anything what is described and shown. The third is discovery learning which refers to the learner learns through the process discovering and exploring. This learning type is an active process where learners undergo changes as they learn. The learner gains knowledge through the process of discovering and interacting with activities and materials around learner. Finally, the constructivism type of learning (see Gupta and Richardson, 1998; Hein, 1998; Bentham,
knowledge (epistemology), which is much appropriated to the photography learning process. This type of learning refers to the learner apply various methods in gaining knowledge. The process of acquiring knowledge is an active process where an “active participation of the learner in both way that the mind is employed and in the product of the activity, the knowledge that is acquired” (Hein, 1998, p. 34). The learning process involves many entry points where there is no specific path and no beginning and end (1998, p. 35). It is an active process of constructing knowledge rather than acquiring knowledge. The learner could choose whatever methods in learning process to attain and gain a set of knowledge, skills and understanding, which is very fundamental towards individual development. This type theory of learning is very appropriated and relevant in the teaching and learning photography in education. Teaching and learning in photography have to encompass a broad array of theories and practices toward producing students possessing all-rounded competencies within the context of visual intelligence which comprises of visual technical skills, visual thinking, visual literacy and visual emotional intelligence. Subsequently, it is said that one of the main areas to focus in the Industrial Revolution 4.0 is focused on the automation or robotic will take place from human to do jobs in the industry. It is argued that when come to fundamental elements in the areas of thinking process, literacy competencies, emotional and spiritual intelligence, human capabilities and capacities are required to control all these matters if compared to robot that are designed and programmed to accomplish any task given. It is therefore, in photographic education or image-based education, the role human in teaching process are fundamentally required and essential in developing and producing appropriate human capital growth.

Finally, the educational theory is related to a theory of teaching on pedagogy. The fundamental of this theory is that both previous theories of photography: a theory of knowledge and a theory of learning can be put into practice or application. This is where knowledge (epistemology), students and teachers are connected between each other in the development and process of education for human being.

IV. CONCLUSIONS AND RECOMMENDATIONS

The findings of this study argue that the importance of photography in education in the contemporary creative industry 4.0 is very significant and relevant to be practiced in any formal education system. This subject is on par with other prominent (established) areas such engineering, computer science, business management and medicine. Photography in education lies between two continua – the theory of epistemology (knowledge) and the theory of learning. The study argues that the importance of photography in education provides significant opportunities for the development of individuals and for social, cultural and economic development. Photography can provide a platform for the education for students with different backgrounds to produce as competent visual thinkers as well as specialist visual practitioners and contributes to visual literacy. With the advent of digital technology has not diminished the traditional method of photography practice. It enhances as an additional tool and medium for betterment of photography practice. It is importance to note that the survival of photography is not merely focused on the tools but more importantly is on the contents of images. If we rely merely on the tools or the camera, photography was dead long time ago. In fact, photograph or image or visual that make photography is still existed and practiced until today and in future development. Photography is also provided a lot of advantages and benefits to photography sphere both in education and practice in parallel to global demand. Finally, photography is recommended to become as one of the subjects to offer at various levels of lower, middle and tertiary education in Malaysian and elsewhere in the formal education system. Any respective decision makers involving politicians, higher rank administrators from public and private sectors should take a positive initiative to consider hence to implement photography as an important subject to be practiced professionally in various in education and economy areas especially in the current development of Industrial Revolution 4.0.

REFERENCES


