Bridging the Interface between Science and the Humanities
Through the Use of Film in Solving Human Problems

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1. Introduction

The media generally, print or electronic, cannot easily be pigeon-holed into a particular academic discipline. This is because, by their nature, beginning from their origin, to their functions and phases of production which they pass through in the process of being actualized, are neither completely science, arts, nor social science; rather, they have a little of each of the disciplines in them, even oral media -the spoken

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word is a product of both art and science. The same applies to non-verbal cues which when analyzed have semiotic and creative elements in them. Indeed, communication generally in production and or dissemination goes through technological, scientific and artistic process in various phases of its actualization, The film medium is the quintessential of these media. Its composite nature makes it draw all the other disciplines and professions like a pulley, Iyamah (2016p.2), says while citing Marinho that, “what goes into a production is science more than arts...because the theatre technician talus the science form and translates it into art form...” Iyamah also cities other sonres by stating that The theatrical experience is in a broad sense, the composite product of creative collaboration between art and science, while art liberates the dramatic experience, science furnishes the technical frame work for the practical realization of the creative vision (Iyamah, 2016 p.158).

The film medium is a medium that by its very nature attracts other professions and people from all walks of life, both in the process of its creation and in the consumption of its product. It is both process and product as has been noted by experts elsewhere, including the present writer.

While citing Danny Lee, a veteran special effects man, Brosnan (1974p. 10), in the introductory part of his book, Magic movies: the story of special effects in the cinema, says, 

script writers have no limits on their imagination. What we do is make photographtable anything they can come up with. All it takes is mechanical ability, a knowledge of hydraulics, pneumatics, electronics, engineering, construction, ballistics, explosives and no acquaintance with the word, impossible.

The above encapsulates the scientific, technological, engineering, architectural, etc aspect of filmmaking. The creative other, comes by way of the story, the dialogue, the acting, the costumes and make-up, etc. which, when merged, gives humanity one of its most complex, most composite professions and academic disciplines: the film medium; a profession which has something to offer to all segments of the society; the normal and the abnormal, the literate and the illiterate inclusive. Film, therefore, is the
product which allows humanity to come together and give its best in order to serve the society with the very best it can offer.

2. Definition of Concepts

Some of the key concepts in this topic deserve to be further explained. To this end, a look at what science is becomes necessary. The Samsung online English dictionary gives several definitions of the word, “science”, but we will stop at one or two. The dictionary, among other definitions, opines that science is: “Accumulated and established knowledge, which has been systematized and formulated with reference to the discovery of general laws; knowledge, classified and made available in work, life or the search for truth; comprehensive, profound, or philosophical knowledge.” The dictionary goes further to state that science, “is a branch or department of systematized knowledge considered as a distinct field of investigation or object of study; as, the science of astronomy, of chemistry, or of mind.”

Science, from the foregoing, is a field of learning which is concerned with the investigation and search for truth. It is concerned with the knowledge geared towards the discovery of general laws, classified knowledge which is made available in work, life, the comprehensive, profound and philosophical knowledge whose central objective is to make life better and improve the standard of living of humanity. On the other hand, Anyanwu (2016p.91), says, “in simple term, humanity embraces the entire human race while humanities in its plural form encapsulate all the disciplines of academia whose object of attention is human beings.” Anyanwu (2016p. 88), also says that:

Humanities are generally regarded as broad based disciplines which are concerned with learning or literature which focuses on human culture such as the Arts, Literature, Classics, History, Theatre arts, Languages and Linguistics; among others.

Humanities, is therefore, an umbrella word that covers a multifarious academic disciplines whose central preoccupation is human beings. And since science also concerns itself with the affairs of humanity, which profession is more suitable to be utilized in solving human problems than that which has in it a large mixture of science and the humanities? This is where film comes in; as a composite profession and
academic discipline which employs both scientific and creative methods in solving human problems.

As human sciences, theatre and film are preoccupied with how humanity engages itself and makes meaning out of existence. Whether they explore animate or inanimate objects, their concern is with how humanity relates with such engagements in order to make meaning out of them. (Anyanwu, 2016p. 56).

Umukoro (2001), gives a clear, elaborate and comprehensive details of the discipline of theatre arts, which we already noted would be used for film, when he says:

The performing artist in academia, the subject of the present discourse, is an eclectic scholar whose creative and intellectual activities, though rooted in the Theatre Arts Department, transcend the broad canvas of the liberal arts into the wider spectrum of education as well as the physical and social sciences. Indeed, the discipline of Theatre Arts resides at that curricular crossroads where the humanities, education and the sciences are in perpetual interaction. Thus, far from being a pure art or an exact science, Theatre Arts is a rich blend of both, maintaining a delicate balance between artistic liberation on the one hand, and scientific precision and empiricism on the other. We may, for want of a better nomenclature, christen this branch of knowledge as a humanistic science, since humanity is the constant centerpiece of its scholarship and creativity, in contradistinction to the physical and social sciences, which deal essentially with the numinous world of nature and the capricious world of man, respectively. (Umukoro, 2001p.2)

Having looked at humanities and science, let us now consider film briefly. Film is a word that can be defined from any perspective, depending on the objective for so doing. Some writers see it from the point of view of its being a process, some as product, yet some view it as raw stock. Iyorza (2015 p. 464), submits as follows: “denotatively, film is a flexible transparent base with a coating which reacts to light and which is used to record a photographic image. However, film, synonymously called motion pictures or movies, connotes artistic reflections and creative expression of life in
the society.” Whether seen from the point of product, process, directorial angle or whatever, film is concerned with humanity. As Reynertson (1975p. 16), says:

Production is a human activity and, like all human activities, it is subject to the biases, emotions, prejudices, to the fears and joys of and defense mechanism of human beings engaged in its performance. Ultimately, it is the force within the human being who operates the machine that counts, not the machine itself.

The film medium covers and is sometimes used interchangeably with cinema, motion picture, theatre, and many more related terms. Ultimately, it is a field, which can best be described as Clarke-Bekederemo describes his character, Ewiri, “as a veritable beach that refuses no canoe a berthing space,” (Ozidi.Act 4. Sc. 2). Indeed, the film is available to whosoever has the interest and resources to get involved in it.

Having seen that the underlying concern of both science and the humanities is the interest of human beings and that film provides a merger, an interface, between the two; let us now turn briefly to the functions of the humanities and science separately before we look at how film can be used to solve human problems.

3. Functions of the Humanities in the Society

The role the humanities play in the society will be taken as a collective, and they consist of the following though not limited to them.

- Provide relaxation. After a hard day’s job in the office, farm, school, hospital, etc. relaxation becomes necessary to rest the muscles and relax the brain, to be able to face the next day.
- Offer distraction. Many a man who would commit suicide is given the opportunity to purge himself of excess emotions through the provision of humor and outlets for laughter.
- Serve as “appropriate tool for handling the modernization of indigenous languages in various specialized domains,” (Owolabi, 2006p. 10).
- Ensure the continued relevance of traditional spirituality; norms and values are also preserved, modified, revived, propagated and passed on from generation to generation.
• Provide foreign exchange and diplomacy through sheer aesthetic pleasure of relevant national icons.
• Employ people from all walks of life.
• Promote knowledge, growth and advancement through the interrogation the ways of life of the people concerned.
• Put government and relevant institutions on the right track through criticism; protect, preserve and project traditional ways of life.
• Monitor the various segments of society for accountability, transparency and balance.
• Ensure equity, justice and fair play in all areas of societal concern.

These are a few of the many functions of the humanities which ensure the continued existence of the human race and bring about harmonious living. Science, on the other hand, serves the following functions, but they are also not limited to those listed here.

• Science interrogates assumptions and establishes facts, thereby bringing laws into existence.
• Clarifies issues and concerns and leaves nothing to doubt or chance, by drawing irrefutable conclusions.
• Reveals knowledge of causes and effects such as drug abuse and the consequences from it.
• Predicts the weather, among other natural occurrences like eclipse of the sun, and thereby helps humanity to plan and guide against disasters like earthquakes.
• Provides knowledge of things before unknown through research.
• Brings about the invention and discovery of drugs, medical equipment, etc. which help humanity to enjoy good health and prolong life.
• Provides employment to people from all walks of life.
• Science add meaning to life by providing cures or at least, helping the sick to find reasons to live.

These are a mere tip of the iceberg of the things science does for the overall well being of humanity, and the progress of mankind. Now, we are going to look at how film
bridges the gap between the two-science and the humanities- and brings about the solution to human problems.

We have seen at the beginning of this work that film is a composite art, one may say, “humanistic science,” as Umukoro (2001p.2). Even though Umukoro’s focus was the performing artist in the classroom, we know that many of them also are semi-professionals. Film cuts across disciplines and professions. Thus, the description succinctly captures the filmmaker. In a research covering the top 1000 films spanning the period 1994-2013, conducted to find out the number of people/crew members who feature in a standard Hollywood feature length film, Stephen follows submits the following:

- Over half of the top films have under 500 people in their crew.
- On the average the top films of the past two decades have each had 3.5 writers, 7 producers, 55 people in the art department, 32 in sound, 55 in camera/electrical and 156 in visual effects.
- The Butler had 39 producers, -5 producers, 17 executive producers, 6 co-executive producers, 4 co-producers and 7 associate producers.
- A third of the workers on Love actually were in the art department.
- Crew credits suggested that Peter Jackson favours special effects over visual effects more than the industry average.
- Now You See Me has six times the coverage number of people in the camera department.
- 23% of the people who worked on ‘Pokemon’: The First Movie’ were in the music department. ((http://stephenfollows.com//how)

He goes on to submit the following as films that had the highest number of crew members within the period, 1994-2013, in a standard length Hollywood feature film as:

Iron Man 3, -3,310.
Avatar, -2,984.
Marvel’s The Avengers-2,718.
The Hobbit: An Unexpected Journey, -2,709.

Only one film had over 3,000 credits.
13 films credited between 2,000 and 2,999 people.

133 films credited between 1,000 and 1,999 people.

287 films credited between 500-999 people.

566 films credited under 500 people.

These crew members come largely from visual effects, art department, producers, writers, special effects, stunts, costume and wardrobe, unit and assistant directors, sound department, transport, camera and electrical. (http://Stephenfollows.com/how-I).

The above is not exhaustive. It must be pointed out that what Stephen Follows noted above are crew members’ credits, otherwise, the behind-the-camera personnel. It does not capture or include the cast, the-in front-of-the-camera personnel. And it is these people, that is, the cast, that constitute the larger society of film personnel. The research does not also cover the consumers, nor the multitude of subjects which the films treat.

It is the subject of the film that is generally the reason for both the number and types of people who feature in it. For instance, a film like Harrison Ford’s *Air force One*, covers hostage taking, hijacking, hospitalization, imprisonment, etc. Inasmuch as an actor may not and is not really a medical doctor, for example, he must necessarily go through the motions in their proper sequence and details once he is cast for the role, in order not to mislead the novice or misrepresent the medical profession. The same argument goes for every role that has been played or would ever be played by an actor in a film. People, especially children imitate what they see and must not be misled. Again, some professions guide their professions jealously and would likely sue the film production company if they are not well represented, at least, in the procedures of their profession. This is not the same as when a profession has been earmarked for lampooning, in which case, exaggeration and other creative interpretations come into play.

Note that this paper is premised on the feature-fiction narrative, where efforts are made to ensure faithfulness to reality as much as possible. The documentary has no colouring and is a faithful depiction of an aspect of real life which is designed to solve a specific human problem. Thus, for the documentary film genre, factual representation is
a given and is therefore, taken for granted. The major business of the motion picture, especially the feature fiction format, is to entertain through make believe. Every effort then, is made to make the viewer believe and this cannot be actualized without meticulous effort and attention to details usually effected through a most painstaking research. Remember that the viewer comes into the picture with the belief that your story is fiction and therefore, not to be believed. The onus of conviction to believe then falls on the filmmaker to change the viewer’s unbelief to belief. And this he cannot achieve void of research. Thus, research is inevitably, the green card of success for great films universally. Any neglect or shoddy attitude to research is at the nexus of negative criticism and therefore leads to poor box office returns. The poor attitude to research is perhaps, one of the reasons why Nollywood movies receive poor reviews outside and even within the country. Research uncovers hidden talents in the film industry and helps filmmakers unearth relevant information that add that extra something to their films that make such films stand out.

Film, therefore, takes the best in every profession and blends them together in its bid to solve or proffer solutions to human problems. This it does in the following ways:

1. It provides “social integration of people within society through the transmission of values, social norms, and knowledge to new members of the group,” (Hanson, 2005 p.28).
2. Provides entertainment and relaxation by creating humour that relieves tension.
3. Film is a culture industry; it therefore, preserves and promotes a people’s culture through cultural diplomacy, exchange and promotion.
4. Film treats all manner of subjects and through these, offers/suggests solutions to equally all manner of human problems.
5. Film innovates, - fashion,new ideas, changes people’s perspectives; fans the embers of hatred as well as creates the atmosphere for peace.
6. Films are weapons-to be used as the possessor wishes. They can therefore, do as much good as harm.
7. Film, the humanities and science are all human oriented. Their central preoccupation is how to be used to serve the purpose of human beings; a purpose which peaks when it is directed at leaving the society better, more
secure, peaceful and with greater potential of creating a greater number of happy people globally.

8. Film utilizes the best in science and the humanities to serve humanity better and bring global harmony.

The above, as already stated is not exhaustive. Film functions in far more ways for the uplifting of humanity than are stated here. Film is a purpose driven discipline and profession that has something to offer to all. The only thing that can discriminate anyone from partaking in the film business is one’s personal limitations. Beyond that, film is an open sesame that is available to all.

4. Conclusion

This paper has shown the relationship between film, the humanities and science. It has made us to understand that the three concepts are interconnected and share a common affinity in their interest in humanity. They serve humanity singly and in their collective and bring about a better society; improved standard of living, good health and longevity, improved relationships as well as a projection of the future of our dreams. Finally, the paper has made it clear that there is no task so difficult, no adventure so daunting, and no problem so herculean that the film medium cannot proffer solution to, provided it is a challenge which confronts human beings. The word, impossible, can be posited to be nonexistent in the dictionary and vocabulary of film.
References


*Samsung online English Dictionary*


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