

Low Budget Approach in VFX in Nollywood Movie Industry

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Abstract

This research report is aimed at evaluating the budget of producing a Television commercial, with low cost implication, using same industry standard software's to achieve same effect and realism. The application of visual effects techniques will majorly help in reducing cost and will transform the production of all moving media in Nollywood. This report is established to evaluate how visual effect can be used fully for film and other moving media in Nollywood in low scale as regards cost. Deep understanding was achieved through practical application and experimentation, and challenges have been overcome. Auto desk Maya was picked as the development platform for product due to its ease of use, being the advanced tools available, and the fact that it is commonly used in the film industry for producing visual effects. The report discloses a comprehensive research done in terms of the media product and its documentation, the testing phase of the stage which includes, animation, lighting and rendering to get uttermost quality. The application of the right media product and documentation, goes to show that there is hope for visual effects in Nigeria Movie industry (Nollywood) and more ground breaking work can be done using the various techniques of visual effects.

Keywords: Visual effect, Nollywood, Movie, texturing, rendering, Animation

Introduction

Since the inception of Visual effect, it has gained massive popularity in film, Television etc., this trending platform has created room for writers to bring to reality their imaginative potential, it has also provided basis for the creation and modification of imagery for a film. According to Zahari et al. (2012) Visual effects are seen as 'the integration of live action footage and computer-generated imagery to create virtual environments, which appear like 3-dimensional realistic space, which would be costly to produce as models and /or simple impossible to capture on film.'

Stephen (2012) stated that, in the early 1980's computer graphics and feature filmmaking began to intersect in major substantial ways, though slow adoption of digital imaginary in Hollywood at that period, computer-generated imaginary was much in broadcast television, and also appeared in advertising and corporate logos. While Michael and Jacquelyn (2010) was of the view that, visual effects techniques has diverse creation method, whereby is safe to say that its creation is a complex process requiring precisions equipment and specialized knowledge, whereby even a apparently simple task as scene colour adjusting requires different techniques such as green and blue screen, rear and front-screen projection, match moving, compositing, matte painting and computer-generated imagery etc., making visual effects a definitive part of a movie's story which can be primarily concluded during post-production but delicately programmed in pre-production and production.

Current researches on the use of Visual effects on all moving media (film, television, game, etc.) has shown that it is one of the most significant and expensive aspect of digital revolution for creators to tell their stories and, it has become a globally used technique in other industries such as Bollywood, but such cannot be said for Nollywood (Nigeria) which in Africa is the largest movie industry. Micheal and Jacquelyn (2010) reported in 1894, Thomas Edison affirm a new invention, where thrill seekers could look into a Kinetoscope and see moving photography of a blacksmith at work and other , for a nickel.

Curtin and Vanderhoef (2014) in their article *The Vanishing piece of the Pi: the globalization of visual effects labour* agreed that on major challenge of the visual effects industry is production, that one-third of the total production on featured film releases constitute of the use of Visual effects, also production budgets for television programmes and commercials are affected. That despite the present use over the decade, there is persistent outbreak of bankruptcies and layoffs, using the *Rhythm and Hues*, VFX that has been for 25years folded in 11 February, 2013 filing for bankruptcy, after the production of the Oscar winning movie *Life of Pi* (2013).

In the work of Venkatasawmy (2013) it was reported that the digitization of Cinematic Visual effects describes Hollywood entrance into the digital realm, as being associated to the industry's complete growth and global domination of filmed entertainment, that ever since the creation of its outstanding motion picture, Fleming *Gone with the wind* (1939), the apex of the Hollywood classical era, so too motion pictures like *Avatar* (2009), *The Adventures of Tintin* (2011) and *Hugo* (2011) the highlight of the digital era of Hollywood filmmaking. Venkatasawmy (2012) also added in his journal on "the evolution of VFX-intensive filmmaking in 20th century Hollywood cinema: an historical overview" explains that the mid 70's Hollywood cinema was experiencing rapid growth, the filmmaker which was called the 'movie brat' Francis Coppola, George Lucas, Steve Spielberg, John Milius, Martin Scorsese and Brian de Palma understood intuitively the need for change, their effort in remodeling of studio system era story of filmmaking and story-telling during the 1970's, has transformed universally the direction of Hollywood cinema for decades. Considering the above premise, the present study investigates low budget approach in visual effect in nollywood movie industry.

Statement of the Problem

The use of visual effects has constraints in producing good and quality movies (Zahari et al. 2012), stating the journal revealed that investing on visual effects to produce stunning movies is a bit dicey, cause factors like budget (cost), human resources and technology are main coercion and problems to producing an impressive movie as with the case of successful James Cameroun *Avatar* (2009) that earned seventy one million dollars on its opening weekend in late December and a gross over one billion dollars by early January, making it the most profitable films ever. These factors are associated to the poor production of film in Nollywood, due to the fact that unlike Hollywood and Bollywood films that are produced for the big screen in theatres, rather they are produced for home movie form, (Jade, 2014). This has led the researcher to investigate into low budget approach in VFX in Nollywood movie industry.

Purpose of the study

This project is aimed at producing a Television commercial, without blowing the budget like it's been done in the industry but using same industry standard software's to achieve same effect and realism. To avoid ambiguity in the study, the following specific objectives were developed to guide the study:

- To learn the various ways by which Visual effects started in other industries and countries, thus applying same method in Nollywood.
- To examine the impact of Visual effects on film and television production practice generally.
- To examine the best practice for all moving media with Visual effects, and also the cost requirements.

Methodology

The media product of this project was done in different stages in order to produce the desired result, a critical plan was developed to give direction and also speed up the process for the work to be completed and be effective, also to get the desired result a research was done on the state of the industry in general as regards the best visual effects technique to use and also the present state of Nollywood on its use of visual effects.

In the advancement of this product from the initial phase was confusing as to the exact media product to create that would depict the research being done. However after in-depth research on the use of visual effects in Nollywood, the different ways it started in other major industries in the world, lead to project planning putting the early phase of this product into consideration, despite all documents gotten or created where not essential, it helped point the product to the right direction.

Stage 1

In this stage a creative diagrammatic procedure towards problem solving in form of a storyboard to distinguish the project from a genuine transfer of ready-made solutions to research was made, which helped in giving a clear picture of what is to be achieved, despite there are few alterations as some scenes in the storyboard was changed while the animation was done this was done to properly tell the story better.

Stage 2

This is a very important stage of the research process which has to do with the commencement of the design, using the selected software's, and the product segment of the research in action. Observing the growth of Visual effects use in Nollywood in film, advertising and in games has provided the platform for creation of this low budget advert taking into fact how it started in other Industries.

Stage 3

The final stage of this project is its testing and composition phase, discloses the comprehensive research done in terms of the media product and its documentation, the testing phase of the stage includes, animation, lighting and rendering to get uttermost quality.

The concluding design of this project is planted upon the specifications requirements, its functions and the ideas generated from research into modelling, visual effects standards and techniques, which consists of both the knowledge, technical know-how and clearly the software makeup for the design in distinctive phases.

Design

The stadium plan basically constitutes of several aspect which are the pitch, seats, and stadium lights. The product design process from modelling to composition, explaining in detail below with diagrams showing what was obtained at each level of the design process.

The design started by first and foremost creating the seats of the stadium by using the polygon cube tool, crease the edges which helps to sharpen it.

Then the creased cube after scaled appropriately to get the desired shape was exported to Mudbox for the texturing, then imported back to Maya and then duplicated and placed appropriately to form the seats.

After the duplication and the placement of the seats, the surroundings of the stadium was modelled, scaled, rotated, moved and placed appropriately to fit.

Texturing

After the modelling, the edges where creased then moved Mudbox for texturing, the reason for creasing the edges of the created mesh it to improve the realism of the mesh and also to add detail to the geometry without increasing the resolution. Texturing in Mudbox was a smooth, much easy process which was attained basically, from downloading the seamless textures and add to Mudbox as a stencil and painted on the imported mesh from Maya, by creating the diffuse layer to paint the added stencil on the mesh and created a bump layer.

Animation

Animation in Maya avail the tools required to bring modelled objects and characters to life. This tools provides the freedom to animate and freely transform the joints and objects by setting key frames. Keyframe animation being that it allows the setting of key frames of joints, IK handles and bones over time.

The animation for this product was one of the difficult phases in this media production process, because of limited knowledge on animation. The character Malcolm gotten for AnimCharacter was imported to the modelled stadium scene in Maya. To meet up the deadline for product this already rigged character was provided by AnimSchool Character, was duplicated and animated, one to play the penalty, the other to keep and the rest two in the scene to gimmick a real football game, but in this case as practicing.

Lighting

Due to the fact that a computer generated character or image is essentially about light, and also light affects greatly the credibility of your model, textures and heightens the mood. Virtual lighting was used for this product to structure and give it the look of the real world, this was achieved by first creating the 3 basic point lights, firstly the volume light was created as the main light to high lighten the scene and the character, the fill light was created with spotlight and the then back light was created with the area lights

After creation the intensity of each light was adjusted and tested by rendering every time an adjustment is made.

Rendering

Organizing the render was another complex task, as to the right camera angles to use for rendering, in assuring the animation and cinematography were great quality, achieved frames were routinely examined. Rather than watch the renders in Maya or play blast, time was put in to assemble and watch finished frames. These inspection took place daily and were a great tool for taking a step back and viewing the work with fresh eyes. Outside opinions were also sought to gain a fresh perspective.

Evaluation/Results

In the furtherance of this project, through considerable study deep understanding was achieved through practical application and experimentation, and challenges has been overcome. This has encouraged by a consistent process of reflection; inspiring new ideas and making interesting connections.

This paper is established to finding out with the help of visuals effects techniques and method, how visual effect can be used fully for film and other moving media in Nollywood in low scale as regards cost. The modelled stadium was done procedurally to get optimum quality and flexibility and any company or user that wants to use it can resolve on the changes if needed.

The implementation of the low budget product was divided into various phases, the first involved research into the state of art, that best describe the techniques in Visual effects, as well as also what is needed in terms of starting a Visual effects company in Nigeria, and the rest.

Auto desk Maya was picked as a development platform for product due to its ease of use, the advanced tools available, and the fact that it is commonly used in the film industry for producing visual effects. The initial plan was to do a short film about drugs, then do the effects for it, by using Maya and the foundry's Nuke. However this proved too bulky to achieve cause of limited time and obviously will not be gotten as required with my little knowledge of foundry's Nuke.

The aim basically is to advertise a product, animate a character using a product and showing how effective the product is, so it will be enticing to the audience. Unfortunately due to the various constraints mentioned it was suffice to improvise since the desired goal as stated could not the achieved necessary alterations to get product.

An important discovery of this entire project is that the completion of the media product itself is a testament to the usability of such visual animation systems; particularly by individuals of a less technical background. This project was gone into with very limited animation knowledge and no previous experience working with the software's used, so it is fair to state that it is was goal driven and a desiring success project, in spite of the obstacles faced.

Limitations of the Study

Software issues

When producing the following product for this report, time amount of time was allocated to learning some of the software's use, Autodesk Mudbox and After Effects, also prior to this commencement of this project and course of study, there was NO knowledge of any of the 3D software, so due to that more time was put in learning the software's needed for carry out this project.

Character

Unfortunately, one major difficulty faced was changing the texture of the character, the UV's where not mapped out properly making some difficulty to achieve in the space of time given for submission, so the face where selected, new materials where created to change the colour.

As a result the desired level of detail planned for the product had to be reassessed and the restraints of the individual as said earlier was given attention. The little bit of technical understanding attained has created the platform for the urgent need of visual effects in Nollywood.

The final output is of a very high quality and all the objectives were adhered to, the quality visually is excellent, few flaws that may be hard to note. If the project is to be enhanced

it would include going more in-depth into visual effects, also created a crowd, maybe change the model of the stadium, put in more characters and make it a real football match.

There are numbers of issues on this subjects addressed within this project that likely can be delve into in greater detail. Though this research offer important links between the theories, subjects and the practices behind them, individual them proffer evenly the heavy areas of each study.

Conclusion

One major conclusion gotten from this media product and documentation, goes to show that there is hope for visual effects in Nigeria Movie industry (Nollywood) and more ground breaking work can be done using the various techniques of visual effects.

This does not certainly mean that every company will use visual effects for film or other media production, but generally, it is a growing and more assuring system that is widely used in other movie industries around the world, which has made it possible for directors and producers the freedom to tell stories. Getting to understand and being able to apply the visual effects techniques will majorly help in a low and small scale form, will transform the production of all moving media in Nollywood.

During the time of this work, it was possible to research to a wide extent the level at which Visual effects is being used in various countries bringing it down to the major movie industries in the world, how they started, the various techniques involved, the problem and challenges associated with it and how it was applied successfully.

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