



Communication Aesthetics of Techno-scenery and Lighting in Bolanle Austen-Peters Queen Moremi the Musical

Adebayo John Badeji

Department of Performing Arts and Film Studies, Lead City
University, Nigeria

Email: badejiadebayo@gmail.com

Abstract

Technology has immense contribution in every aspect of human endeavor; it has not only made work easier but also provided exhilarating impression in the mind of the people. Theatre is not exempted from the multifaceted influence of technology on phenomenon. Therefore, theatre performances have experienced the excellence of technology in the contemporary era such that audiences have unforgettable experiences after seeing theatre performances. Some of these technological advancements that have amplified the aesthetics of performances in the theatre are techno-scenery (3D mapping) and lighting. In view of this, the objective of this study is to explore how techno-scenery and lighting technologies were used to communicate messages in the performance of *Queen Moremi the Musical*. In so doing, Participant-Observation Method and Content Analysis are adopted. Berlo's model of communication is also employed to explain the communicative aesthetics of these theatre technologies in the performance. Techno-scenery and lighting are communication media modifier that facilitates audiences' comprehension of the messages in the performance of Queen Moremi the Musical. They also create clear motion pictures of the setting which the performers cannot communicate in their acting,

dances and singing, to ease the audiences' decoding of messages that the performers are sending to the audience. Therefore, consistent incorporation of these technologies to theatre performances will facilitate easy flow of communication in-between the performers who are the sender, the message which is the performance and the audience who are the receiver.

Introduction

Communication is a requisite activity in every aspect of life, its absence in the interplay of human beings may be regarded as non-existence of being. In other words, there is no existence without communication, and no idea, thought or message can be shared without communication. In view of this, Mahajan (2015) explains that "Communication is the most important tool to achieve the desired purpose. Each and every step of our life, wherever we are, we need communication, verbally or non-verbally on a daily basis to convey our ideas, thoughts, emotions etc." This suggests that there is a purpose why communication takes place in an event. When the purpose is achieved, those who are involved in the communication system would have achieved a certain level of satisfaction with which they engage in communication. Zumbrum (2006) further explicates that "Communication is an essential part of everyday life. The inability to effectively communicate with others can create a plethora of problems for anyone, regardless of their life goals or ambitions." In every sphere of life, such as in medicine, engineering, social sciences, and in the art of the theatre; the inability to clearly express thought and ideas may cause a message not clearly understood by the parties involved in the process of communication. The process of communication takes place between one, two or more people. Lunenburg (2010) describes that two common elements in every communication exchange are the sender and the receiver. The sender initiates the communication the receiver is the individual to whom the message is sent. The sender encodes the idea by selecting words, symbols, or gestures with which to compose a message. The message is the outcome of the encoding, which takes the form of verbal, nonverbal, or written language. The message is sent through a medium or channel. The receiver decodes the

received message into meaningful information. In this regard, wherever communication is taking place, these elements form the basis for which interaction takes place and the participant who are involved. In theatre performances, the actors on stage have a purpose for appearing on stage. This purpose is to ensure that information is passed to the audience through acting, dialogue, dance, mime, music, gestures among others. On the other hand, the audience converges in the theatre with the sole aim of receiving pieces of information that are crucial to their reality.

However, the medium in which communication takes place in the theatre is the stage, but communication process between the actors and the audience is more amplified with the aid of technological equipment in the theatre which facilitates the understanding of information by the audience. Technology plays important roles in theatre performances, one of which facilitates the understanding of messages that are intended for the audience. Kumar, Chaturvedi & Merhotra (2013) explain that “Theatre is one of the oldest art forms, and it has not only survived every technological change but in fact adopted and adapted along the way, for example incorporating electric light and amplified music. It has always been a hybrid form.” This suggests that incorporating technology into the theatre has increased the aesthetics in theatre performances. Kumar, Chaturvedi & Merhotra (2013) further explain that the convergence of theatre with new media provides opportunities for new types of viewing experience and engagement to audiences. It is about discovering new ways of making and presenting theatre, and new artist-audience relationships in these new theatrical-contexts.

Nonetheless, in the contemporary time, theatre technology has been the subject of discourse in relation to theatre performances. Beonisch (2003) observes that as soon as new media technologies like photography, the telephone and radio had become more widely available in the early decades of the twentieth century, their effects on and potential interaction with established media and art forms, such as theatre, became a matter of (quite often heated) debate. New aesthetic products, especially the moving picture,

Journal of Creative Arts, Communication and Media Studies
instigated a broad range of reflection on the influence of (media-) technological innovation on art and its perception.

Vasilakos, Wei, & Nguyen et al. (2008) elucidate that in the 21st century, the new media technologies are bringing new exciting possibilities to the interactive theatre field. Locative media, wearable computers and augmented reality, are changing drastically the space of representation. New media art, psycho-geography, networking, etc. are merging their concepts with the contemporary theatre and it is becoming a hybrid between creation, representation and unique user experience. In light of this, several aspects of theatre technology have been understudied, and many of these studies have sufficed to exploring the general roles of technology in theatre performances. Therefore, this study examines the specificity of techno-scenery and lighting technologies in the performance of Bolanle Austen-Peters's *Queen Moremi the Musical* with confined look at the communicative aesthetics of these technologies.

A Review of Techno-scenery and Lighting Technologies in the Theatre

Technology has contributed to the fascinating experience of the theatre where the understanding of performance messages is made explicit for the audience. This is why Kapsala (2018) explain that “the rapid development of new technologies, and especially digital one, in recent years has affected the whole spectrum of human life, since technological achievements of information and communication consist of integral part of the everyday life.” The incorporation of technology into the theatre has produced the use of techno-scenery to aid theatre performances. Techno-scenery is a modern technology that makes interaction possible between the actors, play environment and the audience in the theatre. Hyeyoung & Hyunggi (2014) explicate that this has made people well acquainted with a variety of techniques for video display of visual imagery. People expect the light to be able to paint images that are as much as they can be to the dream world. Lately new media artist creates an illusion of being mapping on surface of objects, structures, buildings and displayed in public spaces

Techno-scenery contains some feature such as the 3d mapping, interactive technology and video mapping. Give an elaborate description, Catanese (2013) techno-scenery contains the video-mapping (called also “Video Projection Mapping”, “3D Projection Mapping”, “Projection Mapping”, “Digital Mapping”, “Architectural Mapping”). Techno-scenery is an experimental developing technique that has different applications for innovative forms of multimedia art. The use of proper software allows you to create animations, images, videos and plays of light customized in order to “play” with the surface on which they are projected. Combined with audio equipment, you can “tell a story” or let the audience live it a synesthetic experience (today it would rather use the definition of an “emotional” experience). Unlike simple projection on a screen, the video-mapper interacts with the display surface, offering it a new reading (Catanese, 2013).

Kapsala (2018) explicates that techno-scenery also offers a lot of other features such as the: Live Video Input, which may be used to mix or/and manipulate live video with prerecorded digital video; Snapshot Feature, which gives the designer the possibility to create, store and instantly recall the settings within a scene; Record Output, with which designer may record output to QuickTime movie; Sound Input, which is used for the manipulation of the sound volume; and DV Camera Transport Control, which gives the opportunity to instruct up to 8 cameras to play, stop, start, record. All these features are components that create enabling environment for theatre performances such that audience members are well connected to the message of the performance.

Techno-scenery is otherwise known as video projection technique. This is a situation where video background is projected to add to scenic details of theatre performances in order to make the actors interact with the play milieu as well as enable the audience give appropriate interpretation to the message in the play. The popularity of projection mapping continues to increase, and it is being used in various situations. Projection mapping is generally conducted at large scale events (Rok et al. 2013, Lee et al. 2015). Yamazoe et al (2018) asserts that conventional projection mapping requires a calibration process that estimates in advance the relative

relationship between a projector and its target. After calibration, we cannot move the projector or the projection target, since moving them would require recalibration. When projecting onto multiple objects, a dedicated projector is required for each projection target. Accordingly, many projectors are required for a given deployment Shchelokova (2016) explains that artist create an illusion of being mapping on surface of objects, structures, buildings and displayed in public spaces.

Johnson (2011) explains that projection is starting to have a more prevalent and consistent role within theatrical production. Making allusion to the highly esteemed Yale School of Drama that launched the first U.S. graduate degree in projection design (January 2010), he explained that audience members typically are not cognizant of the prevalent use of projections within modern theatre. In 2007 nearly, “two thirds of the shows on Broadway have dedicated projection designers” (Luber, p.16). The addition of projection designers illustrates the fact that projection has become an integral part of typical theatrical productions, as important as lighting or sound. Projection and video technology appears to be a bridge or gateway to exploring interactive technologies. The technology has grown with the use of projections in theatre, creating new and exciting possibilities for use.

Projection mapping is used to create expression of video and still picture reality that elicit make-belief from the audience Catanese (2013) describes video-mapping as emerging projection technique that transforms any surface in a dynamic display: from large images on monuments or facades, up to virtual worlds. We could define it as a projection technique on three-dimensional surfaces that allows us to explore the creative potential of digital technologies as synesthetic means. It utilizes new concepts in three-dimensionality and reversibility to perform a syncretic technique that deals with moving images, computer graphics and historical architecture. Hyeyoung & Hyunggi (2014) explains that the aim of video mapping is to create a physical illusion of images by combining audio-visual elements. This technique is used by artists and advertisers alike who can add extra dimensions, optical illusions, and notions of movement onto previously static objects.

Techno-scenery is more than creating visual illusion, also facilitates interactivity between the actors and audience members. This is why some theatre technicians call it interactive digital technology due to diverse application that is available to make reality possible. Johnson (2011) these digital tools are typically used onstage and controlled by the actor or the designer. Interactive technologies attempt to create meaning and advance the story line within the production, rather than to simply be used for spectacle. Techno-scenery helps in creating locales for actors and also saves the technical crew the stress of constructing wooden scenery for performances. It makes it easier for actors to perform on the stage, because of the realistic impression that is created around the actors to act in. Saltz cited in Johnson (2011) outlines this technology is produced in response to a live performer's actions". In a panel on interactive technology is information transmitted from the performer to equipment that is responsive to the performer's action. Although, from observation, most theatre companies have not really adopted the use of techno-scenery in their theatre performances, but few repertory theatres use this technology. Academic theatre in Nigeria has not incorporated this technology into performances due to its expensiveness. However, the technology gives intriguing experience that makes the audience depart the theatre with well-understood messages. Nonetheless, techno-scenery in the theatre may not give an aesthetic visual expression without lighting. In the functionality of techno-scenery, lighting plays an indispensable role that gives facilitates audiences' message comprehension and interpretation.

Lighting

The real key to fine lighting is not only to simulate reality, but to communicate the proper mood and feeling to the audience. There are a number of different reasons why lighting is important in techno-scenery creation, some of which have to do with the camera itself and the way the imaging system translates light into an electrical signal, and others of which have to do with the fundamentals of human perception Jackman (2010). Lighting is a crucial apparatus for creating a clear and clean video image.

Lighting is used to create the atmosphere and mood, dimension, and texture in a theatre performance. According to Johnson (2010) Once the set has been created in the virtual simulation, the lighting designer uses new digital technologies to plan and design lighting cues in a more realistic manner Popovich, (2008). Using virtual reality simulations is an extremely useful tool in the planning and development portions of design. Previously, designers and directors were only able to visualize the set within the given space after it had been constructed and installed; now designs can be viewed virtually before construction. Pre-visualization software provides lighting designers an environment to adjust their designs before ever reaching the stage (Johnson 2011).

Within this techno-scenery technology, Eddy cited Johnson (2011) describes that “one light could do the work of many via pan and tilt motors to move the light dichotic color filters to produce color, metal and glass patterns, along with lenses, frost, shutters or irises”. The developments of automated lights pushed for technological innovations in consoles (to be capable of controlling automated lights) and in turn created the position of programmer. Eddy (2011). While the position of programmer is now prominent this demonstrates how new technology can create new roles. In 1998, technological advancements in lighting began to advance automated lights in the direction of “digital luminaries”, which “enabled a massive expansion of expressive freedom in lighting and set design, and helped overcome the limitations of ‘conventional’ automated luminaries” Cadena, cited in Johnson (2011).

Far from the usual technique of lighting in the theatre where lanterns are rigged at strategic places (backlight, fill light and flood light), techno-scenery creation usually make use of the LED light. Johnson (2011) writes that Instruments have become smaller, less expensive and have more creative possibilities in digital control of color, position, and intensity. The LED is bright and the use of LED and other various new lighting instruments easily creates colorful animated sets using low- or high-resolution video content. Cadena (2010, p.4). Automated lights have started to taken a secondary role to new digital technologies but still serve an important role to most modern productions. Cadena (2010). Describing the

Journal of Creative Arts, Communication and Media Studies

versatility of the LED light used in techno-scenery, Kapsala (2018) LED lighting fixtures are used primarily for lighting cycloramas or as top, side, or back wash light. LED luminaries have several advantages including: Greatly reduced power requirements; greatly reduced heat load; significantly more intensity in saturated colors; no expendables.

Berlo's Communication Model and Theatre Performance

Communication is a process of by which a sender transfer messages to the receiver, with an intention to receive feedback and achieve intended effect. Croft (2004) says Communication encompasses a great deal of human (and animal) activity. Reading, writing, listening, speaking, viewing images, and creating images are all acts of communication. "There are as well many more subtle communication activities that may be conscious or unconscious, such as expression, gesture, "body language" and nonverbal sounds." Similarly, the activities in the theatre deal with interaction between the actors and the audience through dialogue, body language gestures and signs and symbols.

Furthermore, the famous communication scholar from US Joseph De Vito mentioned five main reasons why we communicate. They are: 1) to influence people, 2) to establish/maintain interpersonal relationships, 3) to acquire knowledge, 4) to help people, 5) to play. DeVito (2013: 11). Likewise in the theatre, the audience members are influenced by the messages they receive from the actors after they have established much acquaintance with the actors. They interpret the message and acquire knowledge from the messages received. Although, communication has been defined in several ways by scholars and different feature were added into it. This resorted to building different communication models to explain phenomena relating to communication. However, explaining communication in the theatre performance of *Queen Moremi the Musical*, Berlo's Model of communication is employed. According to Croft (2004) Berlo's took a different approach to constructing a model. Rather than attempting to identify elements of interest, and relationships between those elements, he created what he called a model of the ingredients of communication. This

Journal of Creative Arts, Communication and Media Studies
model identifies controlling factors for four identified elements of
communication: Source, Message, Channel, and Receiver.



Figure 1. Berlo's Model

Oyero (2004) explains that all communication must come from some source; the source might be one person, a group of people, a company, organization, or institution. Several things determine how a source will operate in the communication process. They include the source's communication skills- abilities to think, write, draw, and speak. They also include attitudes toward audience, the subject matter, you, or toward any other factor pertinent to the situation. Knowledge of the subject, the audience, the situation and other background also influences the way the source operates. In the context of performance, the source is the actors on stage. Series of actors come together to tell a story about a phenomenon. These actors act out things they think the audience needs to know. More

so, the director who takes the responsibility of directing the play is also a source of the communication process in the theatre.

The communication skill of the actors is their versatility in conveying their messages; which include good body carriage, good speech delivering, coordinated gestures, good act of transubstantiation, and good acting etc. An actor's knowledge and social system as well as culture also influence the source of a message as regard the manner in which the message is given to the audience. The attitudes toward audience, or the attitude that an actor uses to convey message will also influence the audience. Furthermore, Message has to do with the package to be sent by the source. Within the message, select content and organize it to meet acceptable treatment for the given audience. In this regard, the message in a theatre performance includes the storyline that the actors are acting on the stage, the themes and subthemes, and lessons that are imbued in the performance. It is from these messages that the audience draws out the interpretation in order to deduce lesson that forms part of their knowledge.

Channel can be thought of as a sense- smelling, tasting, feeling, hearing, and seeing. Oyero (2004) explains that, sometimes it is preferable to think of the channel as the method over which the message will be transmitted: telegraph, newspaper, radio, letter, poster or other media. In view of this, the channels are aids in which information are transmitted to the receiver. In the context of a theater performance, the channel includes the visual aid (such as the techno-scenery) which appeal to the sense of sight, the sound accompaniment which appeal to the sense of hearing, the lighting aid also appeals to the sense of sight, and all other technical aids that contribute to audiences' understanding of the message.

The receiver is the last element in the process of communication. The receiver is the person or persons who make up the audience of your message. All of the factors that determine how a source will operate apply to the receiver. Think of communication skills in terms of how well a receiver can hear, read, or use his or her other senses. Attitudes relate to how a receiver thinks of the source, of himself or herself, of the message, and so on. The receiver may have more or less knowledge than the source. Sociocultural

context could be different in many ways from that of the source, but social background, education, friends, salary, culture would still be involved. Each will affect the receiver's understanding of the message. The theatre audience is the receiver in the communication process in the theatre. The audience needs to possess interpretation skill in order to understand the messages that are passed across. In theatre communication, the audience may not need to give feedback as the communication in the theatre is one way traffic; a message from the source to the receiver: except in some instances where the actors seek the participation of the audience where feedback is needed to be given. In view of this, theatre performances follow communication process where messages are sent by the sender who is the actors to the receivers who are the members of the audience, through the channel which is the techno-scenery and other technological aids that make theatre experience worthwhile.

Communicative Aesthetics of Techno-scenery and Lighting in Queen Queen Moremi the Musical the Musical

Theatre has long ago been influenced by technological advancement. As technology advances, more specific upgrades are always witnessed in the theatre and performances. The production of *Queen Moremi the Musical* staged at Terra Culture Tiamiyu Savage, Victoria Island in Lagos, directed by Bolanle Austen Peter was not an exception in the type of theatre performances that solely depend on high magnitude of technological equipment; ranging from the video projection to produce 3D mapping scenery, clear and audible sound system and lighting effects. The scenes in the performance were accompanied with video mapping projector to create scenery for the actors. Each character has their local being projected in the background; and these locales give additional information to the messages of the play. However, the role of techno-scenery and lighting in the performance of *Queen Moremi the Musical* goes beyond creating scenery alone.

Techno-scenery communicates the specific setting of the performers. In the recent past in the theatre, when the construction of scenery was so mechanical; series of movable sets would be constructed such that movers will hide behind the cyclorama to

move the set after a scene and insert another set. However, the use of techno-scenery in the theatre has relieved the movers of the stressful duties during performances. In this projection, it made it possible for different locale as many as ten locales to be project in the scenery. For example, in the third scene, where the dancers executed their dance movements, the projection explains so many details about the dancers, the setting of the performers and the play. This is explained in the picture in figure 2 below.



Fig. 2

The scenery communicates the settings of this scene as a Yoruba community of the 18th century. These houses portrayed bear a resemblance to some of the settings of south western part of Nigeria, where there are close settlements. This can be seen in Ibadan, Ife, Oyo, Abeokuta, Ijaiye, some part of Ondo, and Ekiti etc. In this regard, it is pertinent to note that techno-scenery resolves the ambiguity of identifying the setting of a locale in the play performance. Furthermore, techno-scenery tells the specificity of time. In the picture above, the audience understands that the event in this scene is happening in the daybreak. However, the lighting also complements the projection of the setting as white light is illuminates the actors on the stage. With these scenic details, the audience understands the information that is passed across by the actors who are the source of the information.

However, as techno-scenery and lighting being a channel in the process of communication in the theatre, it also gives specific details that line beneath the actors which may not be reflected in the absence of techno-scenery and lighting. These details are what Berlo's model described to structure the psychology of the source in a communication process. "Several things determine how a source will operate in the communication process. They include the source's communication skills, attitudes toward audience, knowledge of the subject, social background, and culture- all sometimes socio-cultural context in which the source lives." All these characteristics are conveyed to the audience by techno-scenery. These influence the interpretation of the actors' message.



Fig.3

The picture in figure 3 above explains the precinct of the old time Yoruba building that was usually constructed with mud to make breaks. This detail explains reflect the Yoruba culture and also complements the traditional Yoruba costumes that the actors are putting on. Although, the Yoruba costume also reflect culture, but it only tells the identity of the actors but may not reflect the identity of the setting without the scenery that is projected. However, with the use of techno-scenery projection, it provides the "socio-cultural context in which the source lives" Oyero (2010). In this context, provides the socio-cultural context in which the actors live. In

Volume 1, Issue 2, 2022

addition to the cultural details, techno-scenery projection also tells social status of the actors. Explaining the social status, it could be the bourgeoisies or the proletariats. In the picture above, the audience was able to relate the characters that the actors are portraying as the higher class in the Yoruba society. The people who belong to this class are the kings, and the chiefs, etc.

It is pertinent that techno scenery does not have to do with theatre technology that aids aid visual messages alone, it also has to do with the technology that influence the sounds effect in the theatre. The clip microphones are clipped in the actors' body also increased the communication skills. In this regard, the actors do not need to shout before their voices are heard by the audience in the communication process. This also helps to break the barrier of noise that may impede the audience from hearing the messages that the actors are passing across to the audience. More so, it increases the versatility of actors' to articulate the phonemic production of sound very comfortably; unlike the performance when the actors need to project on their natural voice with media amplifiers.

Techno-scenery also facilitates easy comprehension of the source's messages. Berlo explained that message has to do with the package to be sent by the source. Within the message, contents are selected and organized to meet acceptable treatment for the given audience or specific channel. If the source makes a poor choice, the message will likely fail. In view of this, techno-scenery helps to amplify the content of the message such that they are understood by the audience. The contents of the messages conveyed to the audience include the acting, the dialogue and the settings and other paraphernalia that make up the performance. However, techno-scenery helps project the more understanding of the message contents. For instance, video and image projection helps add specific details about the setting, the period and time of the play; the sound amplifier aids the actors' voices to be clearly heard by the audience who are the receivers. The lighting also makes the visibility of the actors convenient for the audience such that all signs, symbols, and gestures that the actors make on the stage are clearly seen by the audience. These features are shown in the picture below.



Fig. 4: Techno-scenery equipments: video projection, lighting, and clip microphones.

Channel is the third element in Berlo's model of communication. It is the medium by which messages go through in reaching the audience. Oyero (2010) explicates that channel can be thought of as a sense- smelling, tasting, feeling, hearing, and seeing. Sometimes it is preferable to think of the channel as the method over which the message will be transmitted or other media. However, in theatre performances, the channels appeal to the senses. For instance, the use of lighting stimulates good vision of the audience and gestures made by the actors are clearly seen. The use of clip microphones augments actors' voices and increases the audience's hearing technique. The audience does not have to strain their ears before hearing the messages that are passed across before they are conveyed to the audience. The video projection adds specific pieces of information to the acting and dialogue of the actors.

The use of techno-scenery in theatre is not only influential to the actors who are acting on stage only; it is also helpful to the audience. The use of techno-scenery helps the audience to interpret and understand the messages that are sent by the source which are the actors, through the channels; video projection, clip microphone, and lighting, to the receiver who are consist of the members of the audience. Through the details provided by techno-scenery, the knowledge of the audience members is built up through the technologies used in theatre performances.

Conclusion

Theatre performances often come with dimensions of aesthetics when they are staged with good technological paraphernalia; they appeal to the performers' dexterities of delivering their messages to the audience and also enhance audiences' excellent interpretation and understanding of the performance by the actors. In view of this, techno-scenery and lighting accompaniment facilitates communication process in the performance Bolanle Austen Peter's *Queen Moremi the Musical* and helps in the audiences' interpretation and understanding of the performance. Therefore, it is significant to posit that when theatrical performances are advanced with good technological aids, barrier to interpretation and understanding are broken in very high extent.

References

- Beonisch, P. (2010). *Comedia Electronica: Performing Intermediality in Contemporary Theatre*. Theatre Research International. Vol. 28 | No. 1, 2010, Pp. 34-45.
- Berlo, D. (1960). *The process of communication: An Introduction to Theory and Practice*. New York: Holt, Rinehart and Winston.
- Catanese, R. (2013) *3D Architectural Videomapping*. International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, Volume XL-5/W2, XXIV International CIPA Symposium, Pp. 2 – 6, Strasbourg, France.
- Croft, R. (2004). *Communication Theory*. A Coomunication Model PDF.
- Hyeyoung Y. & Hyunggi K. (2014). *A Study on the Media Arts Using Interactive Projection Mapping*. Contemporary Engineering Sciences, Vol. 7, no. 23, Pp. 1181 – 1187.
- Jackman, J. (2010) *Lighting for Digital Video and Television*. Oxford: Elsevier Inc.
- Johnson, K. A. (2011) *Theatrical Productions and Digital Technology: Innovations in and Implications of Digital Production Technology in Regional Theatre*. Presented to the Arts & Administration program of the University of Oregon in partial fulfillment of the requirements for the Degree of Master's of Science in Arts Management.
- Kapsala, S. (2018) *Digital Transformation in Theatrical Performances*. A Thesis Submitted for the Degree of Master of Science (MSc) in e-Business & Digital Marketing, School of Science & Technology. Thessaloniki – Greece.
- Kumar C. M, Chaturvedi, R. & Merhotra, S. (2013). *Art of Theatre on New Media Platform & Audience Viewing Experience*. Global Media Journal-Indian Edition. Winter Issue. Vol. 4/No. 2. Pp. 1-20.
- Lunenburg, (2015) "Communication: The Process, Barriers, and Improving Effectiveness." Schooling. Vol.1, Iss. 1. Pp.1-11.

- Mahajan. (2015). *The Key Role of Communication Skills in The Life of Professionals*. Journal Of Humanities And Social Science (IOSR-JHSS). Vol. 20, Iss. 12, 2015, Pp. 36-39.
- Oyero, O. (2010) *From One to One, to Many to Many*. In Akinfeleye, R.A. (ed.). *Mass Communication: A Book of Reading*. Lagos: Department of Mass Communication, University of Lagos. Pp.14-31.
- Saltz, D. (2010) *Live Media: Interactive Technology and Theatre*. Theatre Topics, Volume 11, Number 2, pp. 107-130
- Shchelokova, M. (2016) *Digital Media in Modern Art (Theater Performances)*. Master I digital kommunikasjon og kultur..
- Vasilakos A., Liu Wei, Nguyen. D, Tran Con Qui, Li Cheng, Clara Boj, Diego D., Adrian D., & Georgios M.. (2008) *Interactive Theatre via Mixed Reality and Ambient Intelligence*. Journal of Information Science Vol.17, 2008, Pp.679-693.
- Yamazoe Hirotake, Kasetani Misaki, Noguchi Tomonobu and Lee Joo-Ho. "Projection Mapping onto Multiple Objects using a Projector Robot." *Advances in Robotics Research*, Vol. 2, No. 1, 2018, Pp. 45-57.
- Zumbrum, C. (2016) *Effective Communication Skills For Security Personnel*. International Foundation for Protection. Published July, 2016.