

OPPORTUNITIES AND INNOVATIONS INTRODUCED BY DIGITAL AGE IN DOCUMENTARY FILMS

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Abstract: It is not possible to evaluate development of the documentary film separately from social developments that emerged in the historical process and innovations in media technology. Answers on what the role of documentaries and documentary filmmakers are revised again and again in this historical perspective. The documentaries that have produced to be watched on different platforms (such as movie screen, television or online media) have important and ongoing social, political, aesthetic and technological changes. These changes include new digital production, new editing equipment, booming in cinematic features, and sharing footage on different video sharing sites.

The innovations of the digital age to the documentary film world can be summarized as, pre-production, production, post-production and distribution stages. Relatively inexpensive digital technology increased the number and diversity of those who want to be included in the documentary production process. Filmmakers, activists, wannabes and entrepreneurs from different parts of the World acces to the production of documentary field in order to gain an active role. In addition, digital technologies in terms of production as well as the distribution and exhibition, is providing a platform to documentaries. Finding potential audience is now possible without relying on traditional channels.

This paper focuses on the innovations that come with the digital technology to the traditional documentary filmmaking. In the digital age, production and post-production of documentary film costs has fallen. it's observed that producing low budget documentaries is possible. Although we need to consider that the internet has been criticized by the scholars about its limitations on being an alternative public sphere. At the present day, the audience who become more sophisticated as a result of increased number of media channels seek for the challenging documentaries not for the entertaining content.

Key Words: Documentary film, digital technology, digital and online documentaries, new forms of documentaries.

THE EARLY YEARS OF CINEMA

Cinema which can be defined as an art form that uses moving pictures to create a narration. Cinema as a word is shortened version of cinematograph. The word is combination of Greek kinemat –to move- and graphein –to write-. The history of cinema reflects a long efforts of several researchers, filmmakers and pioneers in the field (Onaran, 1999, p.6) .

Experimental trials come from different inventors who present their work in various countries such as France, Germany, United States and England. Especially the pioneers from France and United States have a leading role in the cinema history. These first experiments with moving images led the way for settlement and development of cinema in China, Japan, Latin America and the Soviet Union. Moreover these experiments made by the pioneers of early cinema were the begining of the various types of film genres. The emergence of the documentary film genre is equivalent to the birth of cinema. When Auguste and Louis Lumière brothers show moving images in the Grand Café to the people of Paris on December 28 1895, the audience watched events which were part of their everyday life on the big screen for the first time. These images had a large variety such as the arrival of a train to the station, workers leaving the factory, images of everyday life on the street, images that capture various



sceneries from different countries thanks to cameraman they sent to different countries (Nowell-Smith, 1996, p.3).

None of these developments can not be considered independent from the technological developments. Cinema is an art form that has been characterized by the features of technological aspects. Technological pioneers of cinema and documentary cinema have a huge variety. These are various devices and optical toys that creates the illusion of movement, and experiments that focus on visual perception and its limitations. The experiments were carried out in the 1820s by Thomas Young, Charles Wheatstone, Peter Mark Roget, William George Horner, Michael Faraday and Sir John Herschel in England; Simon Ritter von Stampfer in Austria; Joseph Antoine Ferdinand Plateau in Belgium. These experimental works were followed by the development of optical devices based on the illusion of movement of the eye. These optical devises were invented by different inventors under various names in diverse countries such as Dr. John Ayrton Paris's Thaumatrope (1825), Faraday's Michael Faraday's Wheel (1828), Joseph Antoine Ferdinand Plateau's Phenakistiscope (1829), Homer's Zootrope (1834), Franz von Uchatius's Projecting Phenakistiscope (1853) (Barsam, 1992, p.7).

These experiments were based on feature of the visual perception that causes the perception of images by the eyes and brain continues after the image is removed which results in creating the perception of motion where there is no movement. These experimental works are very important for technological developments of cinema. Beside these practices, researches on producing and recording images on photo sensitive surfaces have an importance for the development of cinema. Photography technically and literally means that static representation or reproduction of the light or writing with the light (photo-light, graphy-to write, represent, draw). The experiments for recording light and shadow as in reality that perceived by the human eye were located in the major technological developments affecting the development of cinema. Theoretical references of Aristotle on the working principles of Camera Obscura, referrals of Ibn al-Haytham to the same principles in a more detailed way in the 9th century, architect Brunelleschi's related works and Leonardo da Vinci's drawings in 15th century were important steps on the road to the recording of the images on a surface. Joseph Nicephore Niepce produced the first photograph in 1822, William Henry Fox Talbot and Louis Jacques Mande Dauguerr have made significant strides in this area (Barsam, 1992, p. 9; Abisel, 2010, p. 22).

In the mid 1800s various photographers and researches have made attempts to take first motion pictures. Eadweard Muybridge (1830-1904) used a series of cameras to record the successive moments of the movement of animals and people. Etienne- Jules Marey (1830-1904) made multiple exposure of a movement on a single photographic surface. Since using Muybridge's method on his study of birds is impossible, Marey employed his close friend Jules Janssen's (1824-1907) invention photographic rifle. Muybridge and Marey both aimed to examine the movement by separating it into pieces. Creating the illusion of movement from static images were outside their goals. Even Marey mentioned that Lumiére brothers Cinématographe wasn't interesting at all. Because their invention reproduce the images as seen by the eyes however he was pursuit capturing the invisible (Betton, 1994, p.6; Campany, 2008, p. 22).

The importance of each inventions which had a wide range of variation from optical toys to the devices that record photographic images were major on the road to the creating moving images. Technological developments have a significant prominence since early years of the



cinema. Basic technical developments affecting the narrative possibilities of cinema can be summarized as follows: recording synchronized dialogue in the 1920s; usage of the coloring technology in the 1930s (technicolor process 4); green screen in the 1940s; the development of lightweight and portable camera equipment, recording audio along with the image in the 1950s and 1960s; usage of inexpensive film stock in the 1980s; effects of the Internet in the consumption and distribution of films in the 1990s; usage of memory cards and the digital cameras with built-in storage in the 2000s.

THE EFFECTS OF TECHNOLOGICAL DEVELOPMENTS ON NARRATION POSSIBILITIES

Early years of cinema constitutes the beginning of the documentary film making at the same time. During these early years the number of the documentary films that were released were greater than the feature films. However this ratio started to change after 1907s and feature films outnumbered documentary productions. Furthermore audience interest focused on fictional stories instead of images that captures segments from daily life. The documentary genre began to be pushed aside since feature films capture audience's attention and allows the creation of a profitable film industry (Cowie, 1971, p.170; Barnouw, 1983, p.21). Despite documentary productions struggle against finding financial support and theatrical releases, the genre has succeeded in developing a variety of narrative forms and techniques. Technological developments in the history of cinema has shaped the narrative possibilities of the documentary films which has struggling for its existence. From this point technological developments in the history of documentary cinema should be evaluated in terms of the significant moments.

Recording synchronized sound that have affected the content of the documentary production as in fiction films. Documentary films' subjects started to speak in their own voices and this technical development allowed documentarist to reach a new level for their productions. Before recording synchronized sound, it was too cumbersome to require the use of equipment to provide spontaneous. Therefore camera was filming people while they were doing something instead of their talking in front of the camera. Usage of this heavy filming equipment put aside thanks to the technological developments in the 1950s and 1960s. The effects of using lighter video and audio equipments on documentary films narrative structure has been seen after these years. In the 1960s 16mm film equipment has provided an opportunity to two person team to film. With a lighter film equipment the documentarists has begun to obtain the necessary material and synchronized audio recorded for the film. 16 mm film equipment that rapidly took 35mm's place that provided freedom and easy operation feature to the filmmakers. Also, the reduction is experienced in the use of tripod along with the light weight equipment. However lighter equipment didn't bring along easy movement. The cable between the camera and voice recorder that enables simultaneous.recording sound and image is an obstacle for moving freely. It is necessary to eliminate this cable in order to move camera and voice recorder freely. In this respect documentary filmmakers such as Robert Drew and Richard Leacock performed experiments. In the 1960s after several attempts satisfactory results were obtained (Jaffe, 1965, p.43; Barnouw, 1983, p.235-236).

By means of the technical developments in image and sound recording devices and their light weight, documentary filmmakers started following their subjects more easily. All these developments helped the emergence of various genres in documentary field such as direct cinema, free cinema, cinéma vérité, and candid eye. The most prominent feature of these documentary movements is camera's direct position in the action and its ability to follow the



subject everywhere. Besides the role of technology in the emergence of the new documentary film making styles in England, France, Canada and United States, serving the documentarist's political agenda was another important factor in this blooming. On the other hand, employing synchronized sound affected the editing style. The silent film editing style began to lose value which was first disintegration of the takes then to create filmic time bringing them together. With using talking people in "real time" started to take its place. With the technical developments in docementary film making field a whole new world opened in front of documentarists (Handman, 1999; Enright 2000; Saunders, 2014; Barnouw, 1983).

In the 1970s, video as a new narrative form widened the possibility of a new documentary film activities. With this easy to use equipment anyone who are from non-film area will be able to obtain quality images. Small video cameras bring a novelist's freedom as in the use of paper and pencil for the filmmakers. Through the developments in video technology capturing high quality shots became possible and this improvement opened a new page in the field of documentary film. In the 1980s, with the built in microphone on video cameras there was a change in managing sound and image. This ongoing development supports the independent documentary (Jacobs, 1979, p.516; Barnouw, 1983, p.287).

DIGITAL DEVELOPMENTS

Despite all the digital developments in recording sound and images film industry still uses 35mm perforated films which were developed by George Eastmen Edison in 1892 for his invention Kinetescope in movie theaters. This format is still valid for demonstrations on the big screen, despite the time. Except this contradictory situation, development of digital technologies which have a big impact on the world of documentary film are technologies of production and distribution processes (Sorenssen, 2008, p.49).

Transition from analogue to digital media and World Wide Web's (www) spread all over the World were the most important developments and affected the media technology that took place in the 1990s. In the 1990s, the film and television industry has made the transition from analogue to digital technology. This transition took place first in editing and then in camera technology. Within a short time these important developments has made an opening toward a broader market of consumers and amateur filmmakers. Digital tape formats as Mini-DV tapes took place of the analog Video 8 and Hi-8 video formats. Besides these there was an opportunity for recording to DVDs or hard discs. Another important development in digital media technology was digital video editing's place in the market as a consumer product such as Apple's iMovie editing program. iMovie with the operating system OS X provides the use of a relatively advanced editing facilities in laptops and desktops. For example American filmmaker Jonathan Caoutte's documentary film Tamation created quite an impact at the Cannes Film Festival in 2004, since the entire film was made with iMovie. Another important technological advances are the developments in the mobile phone technology. In a short time mobile phones converted into digital media centers from conventional phones. They comprise a wide variety of functions such as playing music, mobile computer, camera, etc. Making films via mobile phones and uploading them to social networking sites are included in the options (Sorenssen, 2008, p.51).

Digital technology significantly reduces the costs in production and post-production processes. Film production at low cost and diversified media channels for their displaying has brought the emergence of more sophisticated audiences. Besides film making process, the impact of digital developments can be observed in the distribution process as well. Usage of



the internet in the distribution stage lead to reshape of the market. This particularly affects the film and video producers who work outside of traditional media channels. The development of the World Wide Web and the expansion of broadband services in Europe and North America help to arise of alternative distribution opportunities. Personal computers become important distribution channels. In this way productions that can not find the distribution opportunity on traditional television and cable channels will have the ability to reach out broader audiences (Sorenssen, 2008, p. 51).

While documentary films reach audiences, they barrow a variety of marketing strategies from feature films. There are documentary productions that uses its film maker's fame to advertise the production. This marketing strategy is employed by Morgan Spurlock, Michael Moore, Nick Broomfield, Spike Lee, Sydney Pollack and Kevin Macdonald to capture audiences' attention on the film. However these documentary productions that have a wider audience and high box office revenue are only a small part of a large iceberg. The rest of the documentary films try to reach the audience by using the opportunities provided by digitalization and a limited number of channels. These channels include festivals, award ceremonies, the audiences' spreading the information about the production with his/her close circle, and film critics' evaluation the production. In the digital age these documentaries use variety of platforms to reach its audience (Vicente, 2008, p. 272).

This article especially focuses on the impact of DVD and Video on Demand (VoD) as the new documentary film distribution platforms. Existence of these cheaper and more convenient platforms have diversified the viewing habits of audiences, altered the distribution channels and led to development of long term business plans for documentary productions.

Peter Broderick, president of Paradigm Consulting, draw attention to disadvantages of traditional way of distribution in 2006, at the the International Documentary Film Festival in Amsterdam such as the distributors control over production, decrease in the motivation of the distributor after a weak box office opening, loss of opportunities as a video display, and loss of profits due to cross-collateralized agreements. Broderick rings clarification on the new documentary film distribution models that breaks the traditional ways. He refers to digital cinema display, DVD sales and VoD as the new distribution platforms for the documentary films (Vicente, 2008, p.273).

The income from DVD and VOD rights can be extremely profitable for documentary filmmakers. Online distribution removes the intermediaries and guarantees that the documentary filmmakers get the actual profits. Another advantage that comes with the digital distribution is the filmmakers become main subjects who will benefit from the rights of the film. This is done without compromising the rights of the movie. One of the most important issues of the online distribution is reaching the core audience through the distribution. Robert Greenwald first sold his documentary films such as Outfoxed: Rupert Murdoch'un War on Journalism (US, 2004), Uncovered: The War on Iraq (US, 2004) and Wal-Mart: The High Cost of Low Price (US, 2005) independently and then the movie theater releseas were guaranteed. For example thousands of DVD copys of Outfoxed were sold to various groups for special screenings then the information about the documentary spread by word of mouth and reviews about the production published online. DVD sold more then 200 thousand within two months. There are other successful examples that follows the similar new digital media distribution strategies. DVD and VOD platforms not only provides a new environment for documentary productions to meet with the viewers but they draw general public attention to



the films and can help opening the traditional channels for displaying as well (Vicente, 2008, p. 274).

There are documentary films that use VoD as a distribution medium. VoD platforms contain TV channels and online media. Broadcasters such as France Arte, Canal +, FR3 and Documentary Channel provide VoD services for the documentaries. The online environments that delivers VoD service can provide the movies in dubbed format or with subtitles for viewers. Increasingly documentary audience demands to watch the award winning documentaries at international festivals or Oscar nominees. The traditional distribution networks may become inadequate for displaying these films all around the World. On the online platforms using VoD for distribution provide opportunity to access not only to the contemporary documentary productions but also the classics from documentary history. Through the diversity of distribution channels the audience start to reach more films and more platforms to watch them.

The websites such as Normadsland.com that is one of the online VoD platforms contains various documentary productions. Moreover these kinds of channels give an opportunity to the films which are censored on the traditional distribution channels such as television and cinema. For example Ken Ferno blamed some policemen for the deaths in custody in his documentary film Injustice in 2001. The Police Federation opposed its theatrical release, one movie theater decided to show the film but the rest cancelled the opening of the film. One of the most downloaded documentary films of all time is Loose Change (USA, 2006) and it is about 9/11 conspiracy theories. The documentary film took its place on online in April 2005 and reached 10 million viewing figures as of May 2006 (Vicente, 2008, p. 276).

Besides VoD other online channels such as social networking sites allow people sharing their amateur productions. YouTube and Google Video can be given as an example to these kinds of sharing sites. With the increase of online distribution channels, rising in shared online videos are observed. These videos have some common features such as having limited time, bearing the amateur production values, determining aesthetic format during production, and limited or no access to the traditional distribution channels. The productions that have these features bring people together who are geographically dispersed but have a mutual purposes as watching and producing documentary films to create new kind of communities. There are many examples for these types of communities from around the World such as FourDocs a smaller scale (originated in England) an online community that brings together documentary filmmakers. Its website brings documentary filmmakers together and acts like a starting point for them. It also provides information about production phase and editing. The website is a useful source that contains interviews with the leading documentarists and film archive (Birchall, 2008, p. 279).

While studying influence of digital developments on documentary production and distribution processes, giving a special attention to some involvements that come from different social groups is a must. While digital production and distribution help to reduce costs, it also let people from different areas to make films. Including them there are indigenous peoples live in the remotests corners without telephone connections. The interactive project which is called Us Mob is a good example to these types of initiatives. The project was started by Aborginal Australians and the lawyer and filmmaker David Vadiveloo who works with them. Under the project young people got a training for video productions. Within the project six films produced including the award winning documentaries Beyond Sorry (2003) and Bush Bikes (2001). The project's website provides information about history and culture of indigenous



peoples of Arrente for the broader audiences and the younger generation living in alienation from older generation and the next generations (Ginsburg, 2006, p.131).

Besides the productions that contains the stories about communities living in different regions broadcast on the digital evironment, there are initiatives that focus on personal stories of people who attempt to spread their messages to a wider audiences with video productions. These videos take their places on online platforms and share some mutual features with documentary productions such as video blogs. These blogs are the video versions of the written blogs and "vloggers" share some details about their lives on them. YouTube allow uploading these kinds of video blogs and responding them via videos as well (Birchall, 2008, p.282).

These self representations reflect detaching from documentary's social roles. John Grierson and Paul Rotha look at the documentary cinema as a pulpit and value its social impact on society. The self representation productions are an indicator of getting away from these roles. Renov (2004) brings a different approach to the topic.

...video confessions produce and exchange on a non-hegomonic context. These productions can be a powerful medium for the person in self-recognition and two way communication. These videos may allow to more utopian environment where the cultural production and consumption melt into each other, and interact with each other, media don't emphasize the difrences between people, instead tries to have people to understand the difrences between themselves.

Although some of these videos are broadcasted on the online environment pushes the boundaries of the documentaries, recent developments in the digital era brings along new forms of production, distribution and consumption possibilities. Audiences find more variety in documentary films and distribution channels. Also more amateur filmmakers enter the field of documentary film. Also there are some researchers who draw attention to the existing difficulties for high quality productions's standing out from the crowd. Sorenssen (2008) gives YouTube as an example in this regard. Sorenssen emphasizes YouTube's main problem as a distribution channel the signal/noise ratio. On YouTube there are numerous videos from homemade family videos to popular film and TV shows and they all emulate each other. Sorenssen cited from Habermas as follows:

Use of the Internet has both broadened and fragmented the contexts of communication. This is why the Internet can have a subversive effect on intellectual life in authoritarian regimes. But at the same time, the less formal, horizontal cross-linking of communication channels weakens the achievements of traditional media. This focuses the attention of an anonymous and dispersed public on select topics and information, allowing citizens to concentrate on the same critically filtered issues and journalistic pieces at any given time. The price we pay for the growth in egalitarianism offered by the Internet is the decentralized access to unedited stories. In this medium, contributions by intellectuals lose their power to create a focus. (Sorenssen 2008, p.54).



If we put aside the criticisms of online environments' increasingly crowded space, they have a democratic potential and the power that is given to the users. These digital environments provide opportunity to amateur filmmakers who most of the time don't have an access to the mass media to share their productions with wide audience. These kinds of digital channels which are open to the millions of users to access the content and upload their own works allow creation of new filmic expression styles.

CONCLUSIONS

In the history of cinema from experiments on visitual perception and optical devices to obtaining the photographic image on a surface, each step and invention have a signifacant role. Cinema as an art form for the masses develops rich narrative possibilities in course of time with help from the early filmmakers and technological change. During the early years of the cinema, documentary films gave a special attention to the stories from real life and separated themselves from fiction productions with their subject matter and structure of narration. The very first films in the cinema history are documentary films and they represent the daily life of their time. In the first years majority of the films at the movie theaters were consisted of documentary productions. In later years documentaries lost their dominant role and featured films took their place in cinema industry. The invention of the moving pictures became a very large and profitable industry even some of the inventors thought the otherwise at the begining. In this industry documentary productions continue their existence with the influence of technological developments.

Advances in technology have a widespread impact on narrative forms, prodoction, post production, and distribution proceses, filmmakers, etc. For example in the 1950s and 1960s video and audio devices became more mobile that allowed emergence of new documentary styles in different countries. Thanks to the developments in video technology documentary filmmakers became more independent. Digitalization in the 1990s brought innovations to the field of documentary film making.

The advantages which are provided by the new communication technologies can be listed as follows: easy usage of digital production equipment and easier access to them, innovations in the narrative forms, democratization of filmmaking field and the emergence of new distribution channels. People from different areas join the field and share their productions with others on the new digital distribution channels. This opportunity gives freedom to the amateur filmmakers. Since the digital technologies are less expensive there are more individual initiatives. Producing and editing equipments presented in the market via new and cheaper products and these products provide an available atmosphere for the newbies and their works. There are also a wide variety of distribution channels for reaching the audiences. People living in the remotest corner of the world can spread their messages to a broader audience by using these channels. At the same time more personal stories can find the distribution possibility on these channels. Even there are millions of videos on the online platforms, these distribution channels provide opportunities to the people who don't have an access to the mass media and cannot distribute their productions.

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