Evolution Of Editing In Film And Television

Introduction

In the last 100 years the way we edit film and television has changed dramatically with the introduction of new software and hardware it has been made possible to change the way we perceive and create digital media all together. From physically cutting with the camera, to slicing film, to creating a sequence using green screens, CGI etc. the television and film world has drastically improved for consumers and developers alike. The focus of this essay will be editing in television, but I will be exploring parts of film editing history to back up my arguments, I want to find out how developments impacted the industry and the benefits for consumers and creators of television programmes.

To begin with I will be looking at how editing began, and the way creators would make their films to try and tell a story even with a lack of specific shots being put in an order, I will then look at how editing advanced and directors began to make their films more dynamic with use of composition, lighting and cutting. As modern technology arrives, I will discuss the different formats available and their pros and cons in the industry. I will find out what benefits consumers and creators the most with updates to software and hardware and tools being much more readily available for even amateurs to use.

The late 1800s – mid-1900s

Film and moving image dates from as early as 1895, films in these days were less than a minute long and included no cutting or what we would consider editing. In about 30 years the basics of editing began to evolve. However, very little thought was put into the composition of shots, lighting etc. “Lighting was notional (no dramatic intention meant), even for interior scenes.” This is of course very different to how film and television is made today as weeks and months go into just merely thinking about the composition of shots before anything is put into practice. In the beginning there was sound only and no moving image. The first device created to record audio was made by Thomas Edison in 1877. The tin foil phonograph worked by having foil stretched over a brass cylinder with a groove in, when someone spoke into the diaphragm it would vibrate and the brass cylinder would rotate. The needle would move around the grooves leaving indents in the foil. Once the recording was complete the cylinder would be wound back and played again, the needle moving over the indentations would vibrate the diaphragm creating audible playback. Not long after the “dawn” of film came a man who is thought to have revolutionized the film making industry with his use of dramatic editing. Edwin S. Porter is most well-known for his films The life of an American fireman (1903) and The great train robbery (1903) Early on in Porters career he was a projectionist which is thought to be one of the main influences in his editing techniques

“The process of selecting one-shot films and arranging them into a 15-minute program for screen presentation was very much like that of constructing a single film out of a series of separate shots.” This is of course still very different to the world of editing today but was revolutionary for its time and Porter is highly respected for his work and influence into the film world. In 1927 came the movie The Jazz Singer. The Jazz Singer is thought to be the first

talking picture, up until then films had been mostly silent with occasional sound effects and potential live musical accompaniment “The Jazz Singer was Vitaphone sound-on-disc using Bell Telephone Labs then state of the art Orthophonic recording with reproduction through western electric high power amplifiers and newly designed loudspeakers”. We can already see that in the last 50 years technology has drastically improved allowing for talking image that doesn’t need a live band and can be played back to the audience multiple times. A few quotes from directors of the time show that not everybody was happy with talking pictures: D.W. Griffiths: 'We don't want and never shall the human voice in our movies'. Paul Rotha: 'A film in which the speech and sound effects are perfectly synchronised and coincide with their visual image is absolutely contrary to the aims of cinema. It is a degenerate and misguided attempt to destroy the use of film.' It’s very bizarre to see directors believing that sound in film wouldn’t catch on as nowadays a film without sound wouldn’t catch on at all, it is interesting to see how times have changed already.

In 1929 Russian film maker Dziga Vertov created ‘A man with a Movie camera’ this film is hailed with showing the potential of editors and how important they are in the production of a movie. Lez Kuleshov, a soviet filmmaker discovered the effects of cutting different shots together and how the order of shots would convey different emotions and tell different stories. “He found that depending on how the order that shots are cut together, the audience will relate specific meaning or emotion to it.” This is of course very relevant to today’s editing techniques as really the focus of editing is to create and order of things that convey a specific emotion and lead the audience’s emotions in a way that keeps them captivated. In 1924 the Moviola was invented by Iwan serrurier, it was the first machine created for editing and allowed editors to view film while they cut it. Many large companies began to use the Moviola like Warner Brothers, Universal studios, etc. The Moviola allowed for editors to precisely cut film making it much easier to put together shots. A moviola In 1934 the academy awards introduced an award for film editing, the first award being given to Conrad A. Nervig this award was a big step in the editing world as it meant editors became much more recognised in the production of films and the public began to realise how important editors where. The award would have also likely given a confidence boost to other editors as the academy now also recognised them as being a major part of film production and worthy of their own separate award. In the beginning of the film and television industry everything was done in black and white up until around the 1930s despite technicolour being created in 1915. People, where used to black and white films and studios, were reluctant to use colour because of how cumbersome it was to employ into the production process. The main difficulty was the technology at the time. Nowadays colour is in almost all feature films and TV programs unless a stylistic choice has been made to put it in black and white.

“The birth of Technicolor in 1915 is remembered as a decisive event in the history of coloured films.” A 3-strip process for colour was released in 1932, two 35mm strips of black and white negative would be place in the camera, one sensitive to blue and the other sensitive to red. They would be running together with a magenta filter, ran through the camera’s mirrors would create a colour image. One of the biggest problems with colour in film and is still an issue these days is that a lot of light was needed, and it needed to be kept consistent, this meant that most shoots where done indoors in a controlled environment with large lights. This is still like todays studios as even with exterior shoots additional lighting is required to keep it consistent and looking good. After the Moviola came the Flatbed editor. The Flatbed made an appearance around the 1970s but never fully replaced the Moviola as some people preferred this way. The Flatbed worked by having picture and sound rolls laid separately onto a set of plates, these

plates then moved forward and backwards until the editor found the point at which the clapperboard snapped to create video and audio synchronicity. “analog editing systems used physical prints of the film, usually struck from the original negative. These were loaded into a series of rollers, which were then synchronized by hand”, cutting film by hand is very different to how film is edited today, using an analog system meant editors had to be very careful as to not destroy the film as once it was cut it couldn’t be repaired, nowadays if something is cut wrong it can be undone very easily and instantly.

At the start of the 1950s came the invention of the video tape recorder. The video tape recorder was influenced by audio recordings being done on tape and people wondering if the same could be done with video, to achieve this the tape would have to be run at very high speed to achieve the bandwidth required to record video. The initial problem with tape recording was the immense amount of tape needed to record video this made them quite unpopular to begin with. Not long after the first creation of the tape recorder a Dr. Norikazu Sawazaki created a prototype helical scan, this allowed recording heads to be mounted into a spinning drum allowing much more data to be collected and making the whole process much less cumbersome. “Because of its US$50,000 price, the Ampex VRX-1000 could be afforded only by the television networks and the largest individual stations.” This is of course very different to todays times. Access to equipment and software is much more readily available and affordable allowing smaller companies or individuals to enter the market so it isn’t just dominated by mega-corporations. Of course, some equipment is still very expensive and only major studios can use it but the number of things available to film makers is much vaster than it was in the mid-1900s.

Mid-1900s – Current

Around the 1960s editing hadn’t really advanced much and film-makers were used to following a formula to edit. Then came the French new wave and the American new wave. These new waves reinvented the way film was shot and edited and tried to against the grain and try uncongenial new tricks to portray scenes and stories differently to how major companies would be doing it. The use of jump cuts and montages began appearing as a way to increase the pace of a film, these techniques are used quite commonly in todays film and television and the French and American new wave influence current editing techniques very heavily. Then came the digital age of film. Around the 70s and 80s development of new technology had pretty much stopped and editors where used to everything they had and not a lot was changing. As computing became bigger and bigger more and more software was created for it epically CGI and animation which is largely used in todays film and tv industries. One of the first digital editors was the CMX 600