

Lights, Camera and AI: Redefining the movie making landscape**Dr. Arkin Chawla****Assistant Professor, Management Education and Research Institute (New Delhi)****Abstract**

Indian cinema has had a remarkable and legendary growth worldwide. Indian movies have a dedicated fan base that loves and adores them wholeheartedly. The journey of Indian movies is as diverse as India itself, with different cultures and languages every 100 km. Indian cinema has developed alongside India as a developing nation. The evolution of Indian cinema continues to grow rapidly along with the advent and popularization of streaming on OTT platforms. But as we live through one of the biggest changes in all of humanity, it is a great reminder of the importance films occupy in our lives. Movies, no matter the year they're released or the year they're watched, continue to be our safe haven and entertaining escape in the bad times as well as the good ones. This paper will discuss the established software's and AI used in the Film Production process and proves their relevance in the film industry. This paper is based on the Technological Determinism theory.

Keywords: Indian Cinema, Growth of Hindi Movies, AI and Technological Determinism.

Introduction**❖ Journey of India cinema**

An artist who later became a filmmaker, Dadasaheb Phalke, had the audacity to insist that "Indians must see Indian movies on the Indian Silver screen" in 1913. The first feature film in India was "Raja Harishchandra," a silent Marathi full-feature film with mythological influences. It is frequently referred to as the "Father of Indian Cinema."

As technology advanced, sound could help make films a lot more interesting and engaging. In 1931, Alam Ara (The Light of the World) directed by Ardeshir Irani became the first 'talkie' i.e. the first film to employ speech and sound.

It is also interesting to note that during this time, most of the films were historic-themed. They were about nobility and observed the distinct Pre-British Raj grandeur which were at large an attempt, a plea, a celebration of the undefeated spirit. Amidst the turbulence of freedom struggle, World Wars and overall existential grievances, cinema became a comforting escapism.

As it is with any historical tragedy, bleak reality is followed up with a resurgence and celebration of life and all it has to offer. Similar was the case with Indian cinema where as we progressed into the 1950s, we observed the 'Golden Age' of Indian cinema with an upsurge of filmmakers and films. One of the key reasons behind this was the inclusion of color. The dreary monochromatic films were now enlivened with bright colors. Filmmakers that were significant to the golden age of Indian cinema included: Bimal Roy, Raj Kapoor, Mani Kaul, Kumar Sahani and so on. Bimal Roy's Devdas gave what Indian cinema (more particularly Bollywood) has so dearly attached itself to: antagonising love triangles. Love. Especially an unreachable, unfathomable and unpredictable love. Hence the 1950s saw a little bit of everything: romance, drama, realism, musicals — all while probing themes of life. Soon after watching the love-struck hero, the Bollywood silver screen in the 1960s and 70s, welcomed a new kind of hero. The breakaway from the traditional mould of a filmy hero was propagated and quite frankly popularised by legendary actor Amitabh Bachchan for his role in films like 'Namak Haraam', 'Agnepath', 'Shahenshah' and so on. The 'Angry Young Man' trope was further litigated by actors such as Anil Kapoor and Mithun Chakraborty. The most remarkable film to be released during this era, which played a huge role in shaping modern cinema of India, was Ramesh Sippy's 'Sholay'.

It is interesting to note how greatly the themes of regional cinema differed from that of Bollywood. With funding and sponsorship being the factors that consequently decided the production value, much of the mainstream attention was directed towards Bollywood.

Finally, the famous 90s. The one period of cinema that most of us readers would be familiar with, we grew up watching 90s films or saw their reruns on Set Max. The 90s was the period of romance and music and irrefutably, There is no better way to profess your love than to do it with a song; at least that's what Bollywood taught us. With romance-musicals gaining popularity, films such as Dilwale Dulhania Le Jayenge, and Kuch Kuch Hota Hai set the stage (and benchmark) for how romance is depicted on-screen.

As we move onto another decade of films, Indian cinema grew tremendously not just in the number of films it produced but also the quality of the storytelling of the films. With growing commercialisation, a lot more thought was put behind production design, costumes, casting and script. Shah Rukh Khan who dominated the screens in the 90s, shared his limelight with upcoming actors like Hrithik Roshan, Abhishek Bacchan, Deepika Padukone, Aishwariya Rai and so on. As for women characters, except performances delivered by Rani Mukherjee in Black and Kareena Kapoor in Jab We Met, the Indian screen didn't give enough credible female characters. Just like that, the evolution of Indian cinema continues to grow rapidly along with the advent and popularisation of streaming on OTT platforms. But as we live through one of the biggest changes in all of humanity, it is a great reminder of the importance films occupy in our lives. Movies, no matter the year they're released or the year they're watched, continue to be our safe haven and entertaining escape in the bad times as well as the good ones.

❖ AI

The power of a digital computer or a robot under control of computers to carry out actions usually connected with intelligent beings is known as AI. An artificial intelligence developed by humans that is capable of carrying out tasks intelligently without needing direct instruction. Now a days we talk to AI in various forms through voice controlled system (Siri, Alexa or any other) which we used in our day to day life. AI became an inseparable part of our lives and we are also depending on AI for numerous things.

❖ Literature Review

1. In this paper the author **Anandraj K.C and Dr. S. Aravind** states the potential impact of AI in the field of filmmaking is immense. It has the ability to completely transform the business by providing novel tools and techniques that can boost creativity, streamline production processes, and captivate audiences through inventive means. By adopting AI in a responsible and ethical manner, filmmakers may access new opportunities and produce innovative cinematic experiences that deeply connect with global audiences
2. In this article by **V. J. and Dr. V. Vishnu Vardhan**, elucidates about movies generated through AI, how popular movie production companies like 20th Century Fox, and Warner Bros. use AI as a tool to enhance their films, AI which are used to generate films, and jobs that AI is unlikely to replace. This article concludes by stating how humans should use AI in order to sustain in this era of AI
3. This paper By **Yaxing Lee** focuses on three areas: script writing, special effects production and video restoration, and highlights the application of technologies such as Benjamin, flux system and ESRGAN in these three areas. By analyzing the positive impacts and potential risks, this paper points out that AI technology and human artistic creation are indispensable for the healthy development of the film industry only when they complement to each other

❖ Hypothesis

H₁: AI is affecting Film industry with its new tools and technology.

H₂: AI tools and technology make tasks easy.

H₃: AI is overshadowing the creativity of human mind.

H₄: AI became the part of social change which is inevitable.

H₅: Growth in technology is the important source that causes frequent changes.

❖ Objectives

1. To know the affect of AI and new tools and technology on Film Industry.
2. To know the how AI is making production tasks easy.
3. Get to know how AI tools can overshadow the creativity of Human's mind.
4. To know that AI became inevitable part of our Social change.

❖ Theoretical Background

Technological determinism theory

This paper is strongly based on the theory of Technological determinism theory as science and technology is getting in the roots of life and making everything about new technology Aka AI. For instance, every morning we wake up we want to know the time we look for our phone or ask Siri or Google about the time. This is about a basic habit human's develop throughout the time and similar to this incident human's are co-dependent to technology for every other habit in their daily routine.

"Technological determinism is a reductionist theory that aims to provide a causative link between technology and a society's nature. It tries to explain as to whom or what could have a controlling power in human affairs. The theory questions the degree to which human thought or action is influenced by technological factors"

❖ Research Methodology and Design

For this research paper researcher opt Qualitative method and from that researcher elect Observation method. This method is concerned with more of description and explanation more than measurement and quantification. For this research, researcher discusses all the software's commonly used in the film industry and became part of the process.

❖ Data Analysis

With the help of these software the Writer/Producer/Story boarder/ Director has only one work to do is to write something creative and nothing more which can feel like a boon to a writer who have to learn all the rules and regulations and formal formats of screenplay and in between all this work their creativity get lost and that feels like he lost the soul of the story which is the worst thing can happen to a story as well as to a writer also. In Industry if someone wants to mark their work or name they have to have efficient with all the technical aspects with the combination of creativity.

- **Celtx:** Celtx is basically software which helps in the pre-production process. It's a script writing and story development software. It also co-writes, create and collaborate in the writing process which gives a new perspective to the story as well to the writer's team. Celtx will easily format your amateur script to industry standard script so that writer can only concentrate into creative part not in technical part which can put effect on the final production of the story. Celtx can organize or break down scenes one by one or in sequences also with that it can easily break down the shots, find suitable locations etc.
- **Final Draft:** Final draft is a screenplay writing software where any writer can easily convert his rough script into a professionally written screenplay with all the formal rules and that easily match the industry standard. Final draft offers wide range of professional template and formatting options so that writer can decide according his story which one suits best or work best at that time period.
- **Studiovity:** Studiovity is a AI powered Film-TV production management and screenplay software. With the help of the studiovity software writer can have scenes and schedule breakdown which can play a crucial role at the time of the production or shooting. It can write your screenplay and also plan according to the beatboard and Index cards which can create a professional image of writer. It will also create a production calendar, budgeting and a shooting schedule that maps out the locations and scenes for the whole film.
- **Audacity:** Audacity is the software is used for the editing and recording of the audio. Audacity is basically a free software which is easy to use and can be used by anyone who want to be creative with the audio medium. With the help of the audacity the user can produce any kind of music, podcasts which are trending now days, recording voice-over or to record Memos and get creative with the sound. Audacity is open source that can be used by everyone. It is also multi-track editing software for a professional editing experience
- **Shot Design:** Shot design is the software meant for the directors and the director of photography that creates animated camera diagrams, animation, shot design (storyboard or director vision finder) for the director. This software can do the directors work and can give an overview that how a director also have to do a lot before shooting and what kind of planning he or she have to do behind the scenes where no one do anything. Shot design creates a preview of all the camera diagrams, real time visualization of characters and importantly gives a preview how things are going to look at the end of the shot.
- **Gorilla:** Gorilla software is scheduling software for the film production. This software consists features of importing the screenplay, it will breakdown your script and schedule the shoot for the production. Gorilla will create strip board and call sheet for the cast and crew and also mention the description of props and who is bringing that prop which can be great help in the process. It will create a storyboard (animated visuals), a list of shots with all the description about the event and it will also provide a sample image of your location where the actual shoot is going to happen. Gorilla is also known for its budgeting feature which makes a name for software in the industry. It not only arranges the budget but also list your tax credits within a single template which is revolutionary.
- **Studio Binder:** Studio binder is film production management software. This software can easily do every hectic and time consuming work that any creative person can be bored very easily. Studio binder can create call sheets, AV Scripts, Screen writing, Shot list, Story Board, Mood Board, Script Board, Shooting Schedule, Script sides, Task Board, Production Calendar.
- **Shot Designer:** Shot designer is a pre-production support application, Shot designer is known for its fast speed and easy usage for every age group. Shot designer expertise in directing, can create a camera diagram in 30 sec. It can final a scene with all the important positioning like: actors, details of all kinds of shots for that specific scene and most importantly in the form of diagram not in the spreadsheet which helps a lot in visualization. Shot designer will animate the scene in real time which can be great help in pre-visualization.
- **Film Ustage:** Film Ustage is an AI powered pre-production technology. It can easily generate script synopsis with the help of AI and also can determine the scope of the project and streamline resource allocation. This also can categorize your VFX according to the need of the story. With the help of the Film Ustage scheduling tool, one can schedule into three layer sorting and AI will automatically organize and prioritize scenes. It will create your DOOD report as well. Film Ustage will create a synopsis for the whole script as well as for the individual scenes.
- **Adobe Audition:** Adobe Audition is an inclusive tool or set of tools that includes multi track, wave form and spectral display for creating, mixing and restoring of the audio content for every media. It can easily create record, mix and export every kind of audio for the various purposes like: Podcast. It can conveniently easily rearrange any kind of audio as per the need of the project. It will edit the noise level, changes in the frequency (Low and High) according to necessitate. With Adobe Audition, one can effortlessly add audio effects and craft audio with their creativity.
- **Adobe Premiere:** Adobe Premiere is basically a video editing tool as well as AI supported software. It had three point editing with narrative. With Premiere, one can do text based editing and text based search of a particular scene. Just edit in the text document and it will edit the scene automatically which can be very helpful. This software will set the tone and balance the colours, add (build-in) effects and templates, animated titles and templates.
- **Davinci Resolve:** Davinci resolve is a tool for color grading, color correction, visual effects and edit the video in the post-production stage of the film production. Davinci Resolve is known for its All in one solution for all the whole process of post-production. It can cut and edit pages, the Fusion page for visual effects and motion graphics, the color page for color correction, the Fairlight page for audio, and the media and deliver pages for media organization and output are all used for editing purposes.
- **Cinema 4D:** Cinema 4D is a professional 3D animation, modeling, simulation, and rendering software program is called Cinema 4D. This robust toolkit, which is quick, strong, adaptable, and stable, improves the accessibility and effectiveness of 3D workflows for design, motion graphics, visual effects, AR/MR/VR, game development, and all forms of visualization.
- **Autodesk 3Ds Max:** With the Autodesk 3Ds Max, one can create huge worlds and high-end designs using Autodesk 3ds Max, a professional 3D modeling, rendering, and animation program. In this tool, one can utilize the modeling tools to give landscapes and settings alive. With the help of simple texturing and shading techniques to create intricate designs and props. In this tool one can iterate and create renderings of expert quality while maintaining complete creative control.

CONCLUSION

In the end we can surely state that in such a little span of time period AI became a significant part of everyone's life as well became an integral support in each and every profession. AI rapidly enters into every field and profession. AI became a part of entertainment industry where with the help of AI tools we can have recommendations on every streaming platform and service like Netflix, Spotify and Prime Video etc. AI tools automatically suggest the user similar kind of Movies, Shows and music which that particular user watched the last and with specific preferences it changes the suggestion with the new releases and recommend new things for the users. AI is transforming the film industry in so many ways and it creatively offers many more possibilities that can effortlessly improve the working efficiency across the whole film making process. All the discussed software and AI tools play a crucial role in the film production and it will continuously keep on going with its vast speed and becoming crucial part of Film industry so that Human's can work only on creative work not on mind tiring work which can be easily done by AI software and Tools. All of these AI powered tools and software will be growing with time and we will be also growing with them and in future also it will be continuously be an important part of our lives.

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