

IMPACT OF TECHNOLOGY ON CREATIVE INDUSTRIES: A STUDY OF THE INDIAN FILM INDUSTRY - Dr. Padma Rani

ABSTRACT:-Creative industries refer to a range of economic activities which are concerned with the generation or exploitation of knowledge and information. Creative industries comprises of various things like music, radio, television, films, publishing, art, architecture etc. Creative industries are seen to have become increasingly important for the economic well-being, proponents suggesting that human creativity is the ultimate economic resource. The industries of the 21st century will depend on the generation of knowledge through creativity and innovation.

The Indian entertainment and media industry has had remarkable growth in the past i.e. 2004-2008; at a rate of 16.6% while the GDP grew at 14.48% during the same period. There has been a slowdown in 2009 due to the economic crisis but still it has registered a growth of 8%.

This paper seeks to study the impact of technology on the Indian film industry. The Indian film industry produces the largest number of films in the world approximately over 1000 movies annually. Over 3.2 billion movie tickets are sold annually in India; this makes it the largest in the world. It was worth Rs.107 billion in 2008. Foreign Direct Investment (FDI) inflow continued in the entertainment and media segment in India.

Drastic technological changes have been taking place in the film industry in terms of digital cinema, 3D screens, Direct to Home services, mobile phones and animation. Indian animation segment has witnessed significant growth due to outsourcing by international studios as well as an increase in demand of animated content nationally.

This paper seeks to explore the impact of technology on various facets of the film industry and proposes to put forth certain key aspects which can be adopted by film industries across South Asia, in order to make them enterprising and successful.

INTRODUCTION:

Creative industries are those companies or organizations which produce or use knowledge and also included are those which use advanced scientific knowledge. [1] For example media, arts and design organizations and universities. The term creative industries also overlap with cultural industries and media industries. These include advertising, television, radio,

newspapers, internet publishing, magazines, book publishing, film and theatres. These have attracted the attention of the government in developed societies because of the earnings that they generate.

UNCTAD definition of the creative industries

The creative industries:

- are the cycles of creation, production and distribution of goods and Services that use creativity and intellectual capital as primary inputs;
 - constitute a set of knowledge-based activities, focused on but not Limited to arts, potentially generating revenues from trade and intellectual Property rights;
 - comprise tangible products and intangible intellectual or artistic Services with creative content, economic value and market objectives;
 - stand at the crossroads of the artisan, services and industrial sectors;
- And
- constitute a new dynamic sector in world trade.[2]

Certain common features of creative industries are:-They all involve the management of creativity; the production of material is dependent on individuals like writers, scriptwriters, journalist etc; the individuals are not directly employed; most of the things are outsourced and the unpredictability of sales.

The quality of a product of creative industries has two implications:-first, the consumption of a media product by one person does not mean that another person cannot consume the same product. These products are public good. Second, most creative goods especially media goods cost very little to produce and distribute to increasing numbers of consumers; the internet further lowers the cost of distribution and digital technologies lowers the cost of production [3]

The Marxist theorists Adorno and Horkheimer created the term "cultural industry" to describe how in a capitalist society traditional art and culture is squeezed out by the growth of mass, industrialized culture .[4]A particularly powerful driver of globalization of demand in creative industries is social identification. Demand for creative products such as films, fashion and books is very strongly influenced by peer selection or "word of mouth", which leads to a virtuous circle of rapid value legitimisation and demand acceleration, and creating

a "winner- take-all" effect.[5] This can be accelerated by mass media advertising, promotion and sponsorship, traditional and virtual. Demand also tends to be driven by fads and fashion, i.e. on what is 'en vogue. There is a spurt in demand for certain goods in a short period of time. Creative products are also more prone to global demand owing to the "star" effect [6]. As film studios, fashion stores and book publishers know well, people world-wide are more likely to watch the latest film starring their favourite actor or buy the latest book by their favourite author. The effect on theatre- goers of a good review from a respected critic is well known

Technology can bring about changes in creative industries. The change is in the form of “digital convergence”, which can be of three types: technological convergence (a shift in patterns of ownership of media, such as film, television, music and games), media convergence (allowing users to consume different media at the same time using a single personal computer) and access convergence (all production and distribution Of media and services are being reengineered to work on a distributed network platform; i.e., everything is becoming available or doable on the Internet). [7]

Digitization creates a number of new possibilities for distribution. With digital formats, reproduction is free of degradation and incurs no extra cost per item. This opens up the possibilities for infinite expansion of markets and reduces or eliminates the need to warehouse or store products.

In a digital age, however, it is potentially possible for producers and consumers to be in direct contact, thereby bypassing the control of the gatekeepers of the distribution system, which are economically powerful. [8]

Because stockholding costs are minimal for digital products, maximum choice is available; this is called the “long tail” hypothesis.[9] In the long term, however, the potential for monopoly profits are reduced, hence posing a threat to the current media structure but opening up significant possibilities for small producers. Under a system of direct micro-payments, for example, profits may be spread thinly and hence little traditional benefit from the creative economy will be realized.

Therefore, ICTs may play a major role in this transformation process, reducing costs, improving productivity in the value chain and making companies more visible in the global market. The impact of ICT is visible in those creative industries depending on technology at their very core (software, games, multimedia content).

REVIEW OF LITERATURE:

A number of studies have been carried out about the impact of creative industries on economic development and related issues.

Dominic Power has studied the place of cultural industries in Sweden's economy [10] In Sweden, these industries have come to be of great importance to employment, regional development, and international competitiveness, as well as to wider social goals. Worldwide, film is an important industry with impacts on cultural life. Swedish film has enjoyed considerable critical and commercial success, with filmmakers, such as Ingmar Bergman, creating an early reputation upon which a thriving industry has grown. The data shows a pattern, it closely follows the urban structure of the country, with the lion's share of cultural industry activities and employees concentrated in the most populous and urban areas: the Stockholm metropolitan region, Göteborg-Trollhättan-Borås in the west, and the southern Malmö-Helsingborg region. The dominant position of these principal metropolitan regions and the general tendency toward urban agglomeration apparent in the Swedish cultural industries system are supported by other studies of Swedish cultural industries.

In a study by Millar, Choi and Chen on how globalisation has impacted the cultural industries.[11] The production cost of the average US movie has grown from \$20m in 1987 to \$53m in 1997, and the printing and advertising costs from \$9m in 1987 to \$22m in 1997 (The Economist 1998, p. 16). Distribution is the engine which drives the process (FPRG 1998, pp. 13-14), together with large scale advertising - equally valid for cultural industries, fashion and FMCG. A second feature is the use of large-scale marketing - achieving a reduction in costs through expanding the market. A third one is mass production technology, enabling cost reduction through economies of scale in increasing production, particularly relevant for consumer electronics and computer hardware. A feature of both these sectors in recent years has also been the increasing use of standardised components that can be produced cheaply, often in low-cost countries or else sourced locally in order to circumvent trade barriers. A fourth way in which many of the highly globalized companies have managed to reduce costs has been through the use of information technology in their global logistics system Information technology has been a particularly important factor in the globalization of those firms whose products can be digitized (i.e. stored as data on computer

systems). These include firms in software (Microsoft), computer games (Nintendo, Sega) and news (Reuters, News Corporation). One of the key economic benefits of information and communication technologies has been a sharp reduction in the cost of reproduction and distribution of digital products (McKee-Mason/Varian 1994). In the case of the so-called "cultural industries" such as media and entertainment it is also necessary to consider the cultural production system.

John M. Mezias and Stephen J Mezias in their study of the American film industry investigated its population dynamics.[12] Specifically, they examined the hypothesis that concentration among large generalist firms will be associated with higher rates of findings of specialist producers and specialist distributors. They also investigate the question of whether these specialists are more innovative. Specifically, they examined the hypothesis that specialists were more active than were generalists in the creation of new film genres in the early years of the American film industry. They found that increased concentration among generalists had a positive effect on findings of specialist producers and specialist distributors, and that the specialists were more active in the creation of new film genres.

In a study titled "Creative Industries in the Netherlands: Structure, Development, Innovativeness and Effects on Urban Growth" by Erik Stam, Jeroen P. J. de Jong and Gerard Marlet(2008) Based on an empirical study in the Netherlands explore the effect of creative industries on innovation, and ultimately on employment growth in cities[13]. In the Netherlands the three specific domains of creative industries-arts, media and publishing, and creative business services-make up 9 per cent of the business population. Drawing on survey data they found that firms in creative industries are indeed relatively innovative. Yet substantial differences are found across the three domains: firms in the arts domain are clearly less innovative, most likely due to a different (less market-oriented) dominant ideology. In addition, firms in creative industries located in urban areas are more innovative than their rural counterparts. They also analyzed how the concentration of creative industries across cities is connected with employment growth. With the exception of the metropolitan city of Amsterdam, they found no measurable spill-over effect from creative industries. The presence of the creative class (in all kinds of industries other than creative ones) appears to be a much stronger driver of employment growth than creative industries.

The study “Cultural Production in a Digital Age” by Eric Klineberg and Claudio Benzecry have indentified three schools on the basis of how they look at the impact of the digital age.[14] The three groups are:- the digital revolutionaries, the cyber-skeptics, and the cultural evolutionists. Digital revolutionaries argue that new technologies have generated deep structural changes in the fields of cultural production. The Cyber-skeptics do not deny that digital technologies have helped change cultural production, but they see digitization as a mechanism through which culture industries advance larger projects, thereby threatening the integrity of creative fields or the relative autonomy of artists and intellectuals. Moreover, they believe that technology is not a primary causal force of change as much as it is an effect of investments driven by economic, political, or cultural interests. Cultural evolutionists share elements of Bourdieu’s approach, but they emphasize the slow pace of organizational and institutional change between periods of technological development, arguing that deeply embedded practices, routines, and beliefs structure the incorporation of new materials into any production process.

In a review essay, Richard Peterson and N. Anand (2004) proposed that there are six key facets of the cultural production process: technology, law and regulation, industry structure, organizational structure, occupational careers, and the market. Citing the printing press, the pianoforte (which allowed Beethoven to express his skills), and music recording devices, the authors acknowledge that "changes in communication technology profoundly destabilize and create new opportunities in art and culture." Yet even these powerful technologies were filtered through the other five facets of cultural production, just as the Internet is today. The implication of this model is that social scientists should be cautious before directly attributing change in the culture industries to digital devices.

As in the film, music, and publishing industries, technology companies flourish in geographically concentrated "milieux of innovation" [15], which facilitate face-to-face interactions between co-workers and blur the lines between social and professional spheres in ways that (managers believe) increase creative productivity. It is important to identify the prevalence of spatial clustering in certain fields of cultural production since the notion that advanced communications technologies have rendered place irrelevant is one of the leading popular myths of the digital age. Once these technological changes attain a critical mass, they can have a shattering effect on the existing industry equilibrium. Due to the imminent impact of these and other technologies, the successful media and entertainment companies will be the ones that are prepared for their disruptive effects on their business models and the industry structure.

THE INDIAN FILM INDUSTRY:

Based on current trends, the Indian entertainment & media industry is expected to reach the INR 500 billion barrier by 2013. The industry is entering a second phase of growth, which has technology as one of the key drivers. This growth phase is the consequence of a combination of quality infrastructure and the gradual penetration of digital connectivity, which has redefined the way entertainment content is delivered and consumed. The Indian film industry is Rupees 14,000 crore industry it is the world's largest in terms of volume.[16] With the impact of technology slowly it is moving to be the world's most lucrative industry.

Impact of digital technology on cinema is all encompassing. It is shot edited and distributed without a single film. The impact of technology is that it changes both the art of film-making and the business of film making. Digitisation has enabled the release of films on the same

day. This has killed piracy of films to a great extent. The craze of lots of fans to watch the first show has also been exploited by the advent of digitalisation. Currently there are 3000 digital cinema screens in India. UFO Moviez is converting another 1000 screens to digital screens by 2012. 3D movies are also doing well in India the 3 D movie tickets are priced at Rupees.500-8000 as compared to Rs 100-300 for normal multiplex movies. There are 12,000 odd screens in India.

The increasing number of films that are being shot in the digital format is paving the way for digital production, digital post-production, and digital release (DDD) structure. For instance, in 2009 Sathyam Cinemas and Real Image Media announced their first Tamil film production “Thiru Thiru Thiru Thiru”. The film was reportedly India’s first end-to-end digital movie that was shot, colour-graded, and released entirely in the digital format.

Slumdog Millionaire becoming the first movie shot mainly in a digital format to be awarded an Academy Award for Best Cinematography³², and Avatar, the highest grossing film of all Time, receiving accolades for its visuals that were shot and displayed using digital technologies .The first full length animation feature film –Roadside Romeo was produced by Walt Disney in association with Yash Raj films in 2008. Various international production houses entered the Indian market such as Walt Disney, Fox STAR Studios, Mexican global multiplex operator Cinepolis etc.

Digital production:

Character-building is done using technology in various ways. The film are shot on blue or green screen then tweaked until the director is satisfied. Visual-effects gurus can track subtle facial expressions. They are “moving beyond the cut” satisfied to see how their characters would look on screen. In such circumstances, the director’s have less cost pressure which means they have more creative freedom. Digital cameras and software hybrid are an added advantage to the production team.

Digital distribution:

Ad labs use fibre optic cable for telecommunication laid by their telecom subsidiary for transmitting movies directly to screens. Currently, cinema halls in Ahmadabad, Valhi, Nasik and Gandhi agar have been connected to the optical fibre cable. Ad labs, which runs its movie exhibition business under the Big Cinemas brand in India, Malaysia and US, has already started the process of digitalisation in its US movie theatres.

Ad labs have also announced the launch of its BIG Digital 3D at the Ad labs Cinema in New Mumbai. It had also pioneered the use of 6D in the first screen of its type in the Ad labs Cinema in Agra in partnership with Israel-based Cinema Park Network.

Satellite rights

The intense competition among the General Entertainment Television channels (GEC) has led to a favourable change in dynamics of satellite right revenues for film producers. Several block deals are being done for sale of satellite rights, some of which are as below:

- UTV has a syndication deal with Colours with slate of 27 movies on a non exclusive basis. Colors will have the rights for five airings spread over two and a half years. Zee network also has a syndication deal to telecast 21 UTV movies. Colors will get to telecast the movies, for which it has purchased the rights, ahead of Zee. UTV, however, will get to screen the movies first on its Hindi movie channel
- Colors had earlier acquired two-year telecast rights for 55 Sahara movies for multiple airings through a deal with Baba Arts.

Home Video Segment

There is a growing emphasis on home video owing to falling DVD prices, the availability of more titles due to shorter-release windows of theatrical releases and new international titles being launched.

- Shemaroo Entertainment and Acentic announced a deal to exclusively provide South Asian content, including Bollywood content, through video on demand (VOD) on Acentic's in-room hotel entertainment platform across Europe, the Middle East and Africa. Under this agreement, guests in more than 1,300 hotels using Acentic's in-room entertainment services will now have access to a content library of the latest movies from South Asia, including Bollywood releases, as well as activities such as instructional fitness videos (Yoga).

Indian Filmed Entertainment Industry

Key revenue streams

There are four key revenue streams from Indian film industry; the domestic box office collection, the overseas box office collection, home videos and ancillary revenues.

Home Video

Home video segment consists of sales and rentals of movie DVDs and VCDs. This segment is heavily affected by piracy with only 10% revenues sneaking into the industry. The multiplex strike came as a blessing in disguise for this segment. With the lack of

entertainment options in the form of new movies, consumers resorted to buying DVDs and VCDs of classic Hindi and Hollywood movies. Home video segment was estimated to be Rs. 6.5 billion in 2009 as compared to Rs. 5.9 billion in 2008.

Furthermore, there is an inherent change in the business model of home video in India. The home video market is converting to sell-through from rental, which constituted 100% of sales in 2004. By 2014, sell-through is expected to capture 90% of the market. The migration To sell-through is leading to sharp declines in rental spending. This change in business model was spurred by the entry of Moser Baer in the market in 2007. Moser Baer slashed the retail prices of its DVDs and VCDs to the levels at which pirated products were sold and rented. As a result of this disruptive strategy, other players in the business were also forced to slash their prices to similar levels as Moser Baer. This encouraged the sell-through market as DVDs were now available to consumers at low prices.

Ancillary Revenues

Ancillary revenues include revenue from cable and satellite syndication (broadcast syndication), mobile, online and other new age media avenues. Broadcast syndication and mobile emerge as the two major segments in this revenue stream.

Broadcast Syndication: consists of film content, live action and animation content.

Film content forms 85% of broadcast syndication content aired on channels. The acquisition prices for rights to content for broadcast shot up significantly in 2008. A new model emerged, where rights were split among multiple broadcasters. Such that, on an overall basis, The revenues of film producers were secured and the broadcasters continued to obtain and broadcast new film content which was key to their business.

Apart from broadcasting on television, new revenue streams were evaluated. Broadcasting of new movies was done in association with DTH service providers.

A number of films such as Slumdog Millionaire, AaDekhen Zara, Main Aur Mrs.Khanna and Ajab Prem KiGhazab Kahani were released on DTH in 2009 within a couple of weeks of their domestic theatrical release.

Mobile: With the arrival of 3G, there would be a burgeoning of content supplied over mobile. Telecom operators are waiting to utilise the bigger bandwidth to provide host of services to their users in form of mobileVAS. Bharti Airtel recently launched Airtel Talkies, This provides subscribers access to movie contents such as film soundtrack, key dialogues, storyline and so on before movie release. Airtel Talkies offers both upcoming new releases

and all-time classic movies in five languages - Hindi, Tamil, Telugu, Kannada and Malayalam. This would also act as a promoting mechanism for the movies.

New trends:

- For Spider-Man 3, Sony had released 558 prints across the country. Of these, 261 prints were in Hindi, 162 in English, 156 in Tamil and Telugu, three special IMAX prints and six in Bhojpuri. It was a first for a Hollywood movie. A three-month long marketing campaign covered nine metros and nearly 70 small towns. The Bhojpuri version of the movie ran to packed houses at halls in Bihar's interiors.

- Hollywood blockbuster Avatar, has grossed over Rs 100 crores in India, making it the biggest ever film for Fox in India after breaking Titanic's record collections of Rs. 55 crores. Avatar heralds the trend for viewers to pay higher prices for a 3D movie experience.

- A recent trend has been the release of children films by US / International studios in India in the summer season and their stupendous success at the box office. Last year, the two stars of Hollywood for Indian summer were Harry Potter and Night at the Museum.
- Reliance BIG Home Video: Launched 20 titles which have won 'Best Picture' award at Oscar such as Gladiator, The Godfather, Gone with the Wind, The Departed, Shakespeare in Love and Casablanca.
- In the long run, growth in Blu-ray high definition ("HD") videos will offset a declining DVD market and propel overall sell-through. Rental company Movie Mart launched its online Blu-ray disc renting and selling facility in 2009. It is claimed to be the first online Blu-ray discs renting website in India.
- A number of Hollywood and Hindi films have realised the potential of regional cinema and there have been increased instances of international Bollywood films being dubbed in other languages.

For example- It's a Wonderful Afterlife, Gurinder Chadha's latest English film is dubbed in Punjabi and Hindi.

- Toy Story 3: Hindi dubbing
- Shrek Forever After: Hindi dubbing
- Avatar: English, Hindi, Tamil, and Telugu
- Ninja Assassin: Hindi, Tamil, and Telugu, English

A number of English movies are now dubbed in local languages as they yield better returns than the English version of the same.

Regional Languages:

Within regional languages, the South-Indian segment is a pivotal market in terms of number of film releases within the four Southern states comprising Andhra Pradesh, Tamil Nadu, Karnataka and Kerala together accounting for a majority of the total number of film releases in India. Other regional language markets in India include films made in Bengali, Bhojpuri, Marathi, Punjabi and others. The total domestic box-office collections from regional language films in India are estimated to be about Rs. 15 billion.

As South India market forms the major part of the regional cinema revenue and due to the fact that single screens dominate the South Indian market.

Regional market also leads over Hindi films for digitisation across the industry. It is estimated that around a third of the films produced in regional language are in digital format. This also helps in combating piracy. Technologically also, South Indian films are leading over Bollywood with the use of digital intermediates, VFX and computer imagery.

Distribution

As with many industries, distribution plays an important role for the film industry in facilitating the delivery of content to film viewing audiences.

In recent times, many large players have developed an integrated presence in film Production and distribution in order to increase their control and bargaining power in the Industry value chain. “Corporates are here to stay and the industry will get more organised as a result of this” – **Sanjeev Lamba**, CEO - BIG Pictures

“Corporatization of the film industry has seen the decline of independent distributors, who are now aligning themselves with corporate distribution houses to remain in business.” – **Rajesh Thadani**, Independent Distributor

Innovative marketing and promotions

With decreasing theatrical windows, an integrated marketing campaign by the producers, distributors and exhibitors to attract audiences and drive better monetisation within the limited theatrical windows available today is critical for the industry.

“Every movie is a brand unto itself...it is not enough to create a product, the Marketing, promotion and timing of a movie is crucial to the success of a movie”

– **Anil Arjun**, CEO - Reliance Media Works

Some of the films have taken the online route for marketing like 3 Idiots; Avatar. They had social forums on Facebook, Flickr, YouTube and Twitter. For the marketing of the movie 3

Idiots the hero- Aamir Khan went in disguise from one city to another and most of the cities he visited were b and c class cities. This was given wide publicity by the media. During the release of the movie Gajani-the hairstyle of the protagonist was promoted in various publicity materials. There were contest held for the hairstyle.

Exhibition

With the growing relevance of multiplexes over the last few years, the Indian film exhibition Industry has undergone a metamorphosis. The first multiplex came up in Delhi in 1997 and Today the total number of multiplex screens in the country stands at over 80024; by 2013 the number of multiplex screens in India will likely cross 1,60027.

Over the last few years multiplexes have brought back audiences to the theatres. As Compared to the poorly maintained condition of many single screen theatres, multiplexes Offer an enhanced viewing experience that has attracted audiences despite higher ticket Prices. Growing disposable incomes, favourable demographic changes, increase in the Number of films targeted at niche audiences and entertainment tax benefits granted by Various states have contributed to the growth of multiplexes.

Even though multiplexes typically have lower capacity per screen as compared to a single Screen theatre (nearly 300 for multiplexes compared to 500 for single screens) they currently Contribute around 25 percent of the total domestic theatrical revenues for the overall Indian Film industry and as much as 60 percent for Hindi films^{24, 25}. This is due to the fact that ticket prices and occupancy levels are much higher in multiplexes. The ticket price in multiplexes is nearly four to five times that in single screens while the occupancy in multiplexes is approximately 30-35 percent compared to nearly 20-25 percent in single screen theatres. According to the CEO of Inox Theatres-Alok Tandon

“We don’t wait for people to come to the box office; we take the box office to Them by providing services such as, tele-booking, home delivery of tickets, Online, SMS & GPRS bookings, thus making the process of booking tickets easy And convenient for the consumer”

CONCLUSION:

The impact of technology on the Indian film industry is not only in terms of innovations in production, distribution but also the growth of various other ways of marketing the film and also associated products like music, tracks of scenes etc. The various advantages of digital cinema are:

1. Savings in Print Cost
2. Nominal one time investment for Digital Prints. Possibility of releasing old films also
3. No investment for Digital Prints
4. No increase in ticket costs
5. Savings of foreign exchange in importing film stock
6. Wide Release of Film
7. Early release in all centres protects film from piracy and adverse publicity
8. No investment for Digital Prints allows distributor to give as wide a release
As possible with no extra costs
9. Digital distribution reaches even C and D centres on day of release; audiences in these centres get access to new releases on day of release.
10. Increase in cinema collections means increased entertainment tax revenues
11. Durability of Media-As opposed to optical prints which deteriorate in quality, digital prints will have virtually unlimited shelf life
12. No expenses on reprints in case of a hit film and no loss in case of a flop
13. No hassles such as bad quality prints, delivery dates and so on
14. Good and uniform viewing experience
15. Good quality prints shall result in increased collection
16. Curb on Piracy Digital content protection software restricts piracy
17. Maximises a film's theatrical potential in the initial period thus increasing revenues
18. Access to good quality theatre viewing in the early part of a film's life
19. Curb on piracy will increase cinema collection
20. Producers are able to experiment with newer genres of cinema. Provides access to newer variety of cinema
21. No risk situation since investment in prints and copyright is minimal
22. Encourages film production and enhances revenue potential

There are several advantages of digital cinema screens, most prominent of which includes savings on print costs, reducing piracy and efficiency in production

Technology has brought about newer and easier ways of doing things but also has stifled creativity to a large extent. With the emergence of digital technology one does not need to search for a location, it can be created in the studio. The backgrounds become the property of

the designer and he can earn from it a number of times. Slowly films need not be shot with the help of actors and actresses the whole film can be created with their images.

These impacts will affect individual creativity. We no longer need large sets with all the spot boys, lighting, cameraman, extras etc but standardisation of production with the help of technology will throw a lot of people out of employment.

The publicity of films is no longer in terms of hand painted hoardings or a poster everything has been taken over by digitisation. All across the country the publicity material is the same. This again has thrown a lot of painters out of job; the great painter M.F.Hussin began his career by painting posters of film stars and movies.

Another phenomenon is it has created hubs in urban centres like Mumbai, Chennai and Hyderabad where all the facilities related to film production co-exist and grow.

The two greatest impact technology has had will be the loss of individual creativity and loss of employment for unskilled workers who learned on the job. This will affect the employment prospects of people who are unskilled but are creative.

The south Asian countries have certain common historical and cultural roots the films can be shared with the help of technology. All films can be dubbed in a number of languages. This would widen the reach of the cinema. One can see movies on mythology with the help of animation like Jai Hanuman(The Monkey God) Ganesha (The Elephant God). Similarly mythological characters of other countries can also be produced and distributed. The use of software for production and distribution has provided a source of employment to a large number of technically qualified people. A number of animation companies from USA are outsourcing their work to India, especially in cities like Chennai. It is a newer employment opportunity for the technically qualified individuals.

To sum up, content creation has benefitted significantly from technological breakthroughs, especially in the areas of sound, visual effects and animation. This has benefitted audiences by providing them with a high-tech content viewing/ listening experience. The growing adoption of digital television around the world has forced leading global broadcasting companies to put development and use of new technologies at the centre of their core strategies. For a content distributor, future will come by specialised offerings, such as high-resolution pictures, high-speed Internet access, online games and information, pay-per-view electronic commerce services and voice telephony. It is this trade off that needs to be evaluated before an investment is made in any new technology. If one were to look at

emerging trends in technology and their impact on entertainment consumption, the most significant trends are seen in the areas of media distribution, though some may be regarded as product innovations.

END NOTES:

1. Abercrombie, Nicholas & Longhurst, Brian (2007)- Dictionary of Media Studies; Penguin Books; England.
2. UNCTAD Creative Economy Report; 2010
3. Anderson, Chris (2006)- The long Tail: Why the future of businesses selling less of more; Random Business House; UK.
4. Millar, Carla C. J. M.; Choi, Chong ju ; Chen, Stephen (2005)- Globalization Rediscovered: The Case of Uniqueness and "Creative Industries"; Management International Review, Vol. 45, No. 1, The Limits to Globalization and the Regional Strategies of Multinational Enterprises Published by: Springer Stable URL: <http://www.jstor.org/stable/40836125> .Accessed: 21/04/2011 07:11
5. ibid
6. ibid
7. Klinenberg, Eric and Benzecry, Claudio (2005)- Introduction: Cultural Production in a Digital Age; Annals of the American Academy of Political and Social Science, Vol. 597, (Jan., 2005), pp. 6-18
8. UNCTAD Creative Economy Report; 2010
9. Anderson, Chris (2006)- The long Tail: Why the future of businesses selling less of more; Random Business House; UK.
10. Power, Dominic (2002)- "Cultural Industries" in Sweden: An Assessment of Their Place in the Swedish Economy; Economic Geography, Vol. 78, No. 2 (Apr., 2002), pp. 103-127
11. Millar, Carla C. J. M.; Choi, Chong ju ; Chen, Stephen (2005)- Globalization Rediscovered: The Case of Uniqueness and "Creative Industries"; Management International Review, Vol. 45, No. 1, The Limits to Globalization and the Regional Strategies of Multinational Enterprises; Published by: Springer Stable URL: <http://www.jstor.org/stable/40836125> .Accessed: 21/04/2011 07:11

12. Meziar, John M and Meziar, Stephen J (2000)- Resource Partitioning, the Founding of Specialist Firms, and Innovation: The American Feature Film Industry, 1912-1929; *Organization Science*, Vol. 11, No. 3, Special Issue: Cultural Industries: Learning from Evolving Organizational Practices (May - Jun., 2000), pp. 306-322
13. Stam, Erick; Jeroen P. J. de Jong and Marlet, Gerard (2008)- Creative Industries in the Netherlands: Structure, Development, Innovativeness and Effects on Urban Growth *Geografiska Annaler. Series B, Human Geography* Vol. 90, No. 2 (2008), pp. 119-132
14. Klinenberg, Eric and Benzecry, Claudio (2005) - Introduction: Cultural Production in a Digital Age; *Annals of the American Academy of Political and Social Science*, Vol. 597, (Jan., 2005), pp. 6-18
15. Castells, Manuel and Hall, Peter (1994)-Technopoles of the world: Making the 21st century Industrial complexes; Routledge; UK.
16. In the film business, India is divided into one overseas and six major domestic territories which are further sub divided into 14 territories²³. Distributors buy the rights of a film for a particular territory and recover their costs from the exhibition of the film.
17. Greenwald, William I (1956)-Substance, Quality, and Social Content of Films; *Journal of Educational Sociology*, Vol. 29, No. 8 (Apr., 1956), pp. 330-339
18. Robins, James A (1993)-Organization as Strategy: Restructuring Production in the Film Industry; *Strategic Management Journal*, Vol. 14, Special Issue: Corporate Restructuring; Stable URL: <http://www.jstor.org/stable/2486423>
19. Pricewaterhouse-Coopers--Indian entertainment and media outlook 2009
20. FICCI-Pricewaterhouse-Coopers-The Indian Entertainment and Media Industry: Unravelling the potential; March 2006.
21. FICCI-Pricewaterhouse-Coopers-The Indian Entertainment and Media Industry; March 2008.
22. FICCI-Pricewaterhouse-Coopers-The Indian Entertainment and Media Industry; March 2010.
23. Kohli-Khandekar, Vanita (2009)-The Indian Media Business; 3rd edition; Sage Publication; New Delhi.
24. Gurevitch, Leon (2010)-The Cinemas of Transactions: The Exchangeable Currency of The Digital Attraction; *Television & New Media* 11(5)367-385

