

**A STUDY ON THE IMPACT OF COMPUTER
ANIMATION ON CHILDREN IN THREE CITIES OF
KERALA (CALICUT, COCHIN & TVM)**

(SYNOPSIS)

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INTRODUCTION

Today there is so much to know so quickly that the role of communicator has become very important. The world is experiencing communication revolution and communication explosion. One's ability to influence others is closely linked with his ability to communicate his/her ideas.

Computer animation influences family functioning in varied ways. Learning and education, leisure and entertainment, household routines, work from home, personal development, extended family communication, e-commerce and civic involvement are possible affected domains. Computer Animation has shaped our culture and social system. The present study intends to examine what we give children through computer animation in terms of visual media.

One cannot talk about media consumption by children without including in the discussion of how children's communicative activities vary ontogenetically. Major changers in children's communicative development occur in at least three domains: the linguistic, the social, and cognitive.

COMPUTER ANIMATION

Computer animation is the art of creating moving images via the use of computers. It is a subfield of computer graphics and animation. Increasingly it is created by means of 3D computer graphics, though 2D computer graphics are still widely used. Sometimes the target of the animation is the computer itself, sometimes the target is another medium, such as film. It is also referred to as CGI (Computer generated imagery) or CGC (Computer Generated Character) especially when used in movies.

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ANIMATION & CHILDREN

Childhood as a stage in the human life cycle encompasses a period of phenomenal biological, physiological, psychological, and social growth. Between infancy and the beginning of adolescence, about age twelve, the human acquires major life skills – the ability to walk, talk, read, care for oneself, and come to know the world around him or her. During this time, the child first encounters the major agents of socialization: the family, peers, schools, and media.

Animation Effects on Children

In India today, children below 15 years constitute almost half of the country's population. It is only after the age of 13 or 14 that most children begin to develop clearly formed values and habits. Up to this age, the children's personality, his code of ethics, and his values – all these are open to socializing influences in his environment. Today, visual media which has the power to reach such a vast number of people at one time can help tremendously in fostering the development of desirable values and habits in our country's children.

How will these new media affect children's lives? What kind of evidence do we have about the power of this new media to influence children's cognitive, social, emotional and even physical development? What sort of research do we need to better understand the role of this new media in children's lives? And can we suggest research that will inform media producers, public policymakers and parents?

PURPOSE OF THIS STUDY

These are just several characteristics that vary across computer animation, and accordingly, may influence the impact of such media on children's development. We need descriptions of the way children of different ages use new media in the context of their relationships with others and social institutions such as schools, museums and libraries. How do children of different ages use digital technologies in general across these locations?

In this study, we offer a view of children's development as shaped by processes of media socialization. Within that framework, we discuss the special role of computer animation in child development. We draw from varied theoretical backgrounds to examine both the potential and actual evidence of how computer animation influences children.

There have been five major areas in which effects are seen, (1) Animation : Use & Access, (2) Cognitive Development & Learning, (3) Effects on Children's Cognitive Development (4) Social Development, and (5) Special Concern: Health and Safety issues.

THE PRESENT STUDY OBJECTIVES

1. To understand the impact of computer animation on children and its impacts on their behaviours, especially on violence, formation of character and their studies and real life situations.
2. To find out the impact of computer animation on children, especially on the transfer of ideas on children in comparison with other media.
3. To find out the impact of computer animation on cognitive, social and health related development.
4. To assess the characteristics, development and applications of Computer animation and its many manifestation in day-to-day life.
5. To find out the content treatment and different phases of computer animation.
6. To find out the achievement made by Computer animation in TV and Film production.
7. To find out the impact of gender difference in matters of comprehension, social learning and attitude changes.
8. To find out the reason for the global Animation to search India as the destination for animation industry.
9. Emergence of Indian animation is the revival of Indian mythology, epics and heritage which is going to be rich contribution.

METHODOLOGY

Primary Data

With the main objectives in mind, the researcher has opted a combination of survey method and content analysis of animation which is meant for children. The researcher has scientifically studied the content and characteristics of 2D and 3D animation on children in visual media especially in TV, Internet and Film in Kerala over a period between July and Nov in 2008. Thus the researcher has scientifically designated a questionnaire with the main objectives in mind.

With scientifically developed questionnaire, the researcher has conducted a survey among the children in the age group of 13 to 15 who are mainly pursuing their studies in 9th and 10th standards. Further the researcher has selected a sample size of 687 samples of children belonging to three cities of Kerala - Trivandrum, Cochin and Calicut, giving adequate representation to different socio-economic and religious groups.

Thus the researcher was able to get 687 completed questionnaires in all respect. The researcher has also collected secondary data from many other sources to find out the **Impact of Computer Animation on Children in CALICUT, COCHIN & TVM**. Thus the scientifically collected data is presented in the next chapter for inference and interpretation.

Secondary Data

The researcher has collected the needed secondary data from the institutions and libraries both from India and abroad like the university of Ryerson in Toronto, Humber – Digital Imaging Training Centre in Toronto, Toronto Public Library and also from the Canadian Centre in New Delhi and papers from the various seminars conducted by ICCS (International Council for Canadian Studies) and IACS (Indian Association Canadian Studies).

Thus the data obtained from the field survey and historical research is presented in the forth coming chapters with tabular presentation according to the relevant characteristics for the needed inference and interpretation.

LIMITATIONS

- In Kerala, the animation industry is in its embryonic stage. So the researcher was concentrating mainly in metropolitan cities to get the respondents.
- The researcher could not give adequate representation to rural children since animation is not very popular to them due to the inaccessibility to animation industry.

SOME OF THE FINDINGS

The present study provides an overview on the effects on the use of computer animation on children's physical, cognitive, and social development.

1. The evidence indicates that the use of computer animation increases better academic performance.
2. Animation helps for better interaction compared with recognition, collaboration and problem solving.
3. The research findings indicate that use of computer animation especially playing games has a negative impact on children's friendship and family relationships.
4. The survey shows that increased use of the animation causes loneliness and depression.
5. The study revealed that playing violent computer animation games may increase aggressiveness and de-sensitize a child.
6. The study has revealed that majority of the respondents stated that violent Animation programs can cause violent behaviour in children.
7. Animation programs reduce the practice of body exercises and causes increase of body weight and ill-health.

Computer Animation & Revival of Indian Mythology

The various end user segments of animation that constitute the opportunity areas for animation producers in India are feature film production, TV programmes, advertising/ commercials, games, online education, CAD/CAE, and industry specific applications (architecture, medical, legal/ insurance, etc.). Recognizing the potential, India's animation sector is witnessing a major boom. Overseas entertainment giants like Walt Disney, Imax and Sony are increasingly outsourcing cartoon characters and special effects to India. Other companies are outsourcing animation from India for commercials and computer games.

1. Embedded deep in our cultural heritage are gems like *Jataka*, *Panchatantra*, *Mahabharata* and *Ramayana*. These stories lend themselves naturally and beautifully to animation. Besides history and mythology, each region has its own local folk tales history. All these being just the tip of the proverbial ice bergs, which is already happening. Our entire “cultural heritage” gets overwhelmed and lies buried and forgotten forever.

2. Indian animation products currently under production like Pancha tantra, Tenali Rama, Chhota Birbal and others do make significant viewer-ship dent (like the localization of Star Plus channel being a perfect example for mantra of success) and also manage to pull off merchandising and licensing deals thereby recovering costs and making good profits. In this scenario, the researcher envisage that there will be space for at least 50 large studios to provide at least 4 hours of programming content per day.

FUTURE OF INDIAN ANIMATION

STRENGTH	WEAKNESS
<ul style="list-style-type: none"> • RICH HISTORICAL HERITAGE- MYTHOLOGICAL CHARACTERS ETC. • LARGE ENGLISH SPEAKING BASE • 8-10% LOWER PRODUCTION COSTS THAN ABROAD 	<ul style="list-style-type: none"> • RELUCTANCE ON THE PART OF INDIAN PRODUCERS TO INVEST IN FULL FLEDGED 3D ANIMATION • LIMITED MARKET TO SHOWCASE MYTHOLOGICAL CLASSICS • LESSER NUMBER OFD STUDIOS (75) AS COMPARED TO COMPETING COUNTRIES (SOUTH KOREA- 400) • SHORTAGE OF SKILLED MANPOWER • LARGELY UNORGANISED SECTOR
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • HIGH GROWTH ESTIMATES, NASSCOM STUDY PREDICTS IT TO GROW TO \$ 1.5 BILLION • INCREASING DOMESTIC MARKET, FEATURE FILM/TV PROGRAMMES, ADVERTISING, GAMES, ONLINE EDUCATION, AND INDUSTRY SPECIFIC APPLICATIONS LIKE ARCHITECTURE, MEDICAL AND LEGAL. • ENCOURAGING GLOBAL SCENRIO - GLOBAL SECTOR TO GROW TO \$ 51.7 BILLION 	<ul style="list-style-type: none"> • COMPETITION FROM CHINA

INTERPRETATION

Impact of Computer Animation on Children's Adolescent Development

It is time to assess the impact of computer animation on child and adolescent development. In Kerala, most children now have access to computer (at Home, School & public) and are using for playing games to doing schoolwork and chatting with friends via e-mail and for surfing the Web. The study revealed that parents buy home computers and subscribe Internet to provide educational opportunities for their children and to prepare them for the "information age." Although they are increasingly concerned about the influence of the Web on their children and are disappointed with their children's watching some of the online programs and the activities they engage in—such as games and browsing the Internet etc. Parents generally view computers favorably, and even consider children without animation programs to be at a disadvantage.

Impact of Animation on the Displacement other Activities

Some evidence indicates that children who use home computer animation may watch less television than non-users, but other evidence suggests that television viewing remains the same or might even increase with the use of computer animation. Children in homes with out TV and Internet spent more time doing schoolwork and reading magazines or newspapers, compared with children in homes with TV and Internet with computer animation.

Impact of Computer Animation on Physical Well-Being

Since in the early years of computer animation technology began with video games in the 1970s and playing games has been the predominant computer activity for children overall. However studies have indicated, that playing animated computer games causes number of physical risks in children, including seizures, hand injuries, and changes in heart rate.

Excessive computer animated game playing also has been associated with a form of tendinitis, called Nintendinitis, which is a sports injury characterized by

severe pain in the extensor tendon of the right thumb as a result of the repeated pressing of buttons during game play. To reduce the possibilities of such injuries, children should be given useful instructions for safe computer use, including such precautions as taking frequent breaks and positioning equipment properly.

Effects of Computer Animation on Cognitive skills and Academic performance

Computer animation and the Internet are used widely by children for schoolwork and to obtain information, but whether animation use can make children “smarter” remains to be seen. Nevertheless, playing specific animated games has been found to have immediate positive effects on specific cognitive skills, and use of home computers has been linked to mildly positive effects on academic performance.

Impact of Computer Animation on Children’s Social Interaction and Parental authority

The use of animation not only can influence children’s cognitive and academic skills, but can also determine children’s social interactions and development. Several studies have found that teenagers are more likely to help their parents with computers than parents are to help their children— with boys disproportionately helping their fathers and girls disproportionately helping their mothers.

Impact of Computer Animation on Academic knowledge, Violent and Social role

The research suggests that the social effects of children’s computer animation use vary widely, depending on the amount of time spent, type of activity engaged in, and the nature of content or information delivered. For example, the evidence suggests that computer games are most likely to lead to negative effects when the content of the games is violent.

CONCLUSIONS

The child's orientation during childhood will determine his/her behaviour pattern as an adult and will, therefore, shape the character of the future society. In a consumerist culture the child also acquires a strongly consumerist orientation as it were from the mother's womb itself.

The communication Revolution exposes the developing countries to international demonstration effect; this means the dissemination of the values and outlook of consumerism from the rich to the poor countries. The full significance of this menace from consumerism in the wake of communication revolution has not been adequately appreciated either by the ruling elite or the people. Animation has been converted into a powerful means of promoting consumerist values. In this background, the main challenge before developing countries is that of creating their own non-consumerist version on the animation revolution.

The limited evidence available also indicates that viewing animation program is linked to slightly better academic performance. However, regarding the effects on children's social development, the evidence indicates that the use of computers animation has a negative impact on children's friendships and family relationships. And also in viewing for longer duration may be linked to increases in loneliness and depression. And viewing violent animation programs increase aggressiveness and desensitize a child to understand the feeling of others and it blur a child's ability to distinguish real life from simulation. So there is a need for more systematic research in these areas to help parents and policymakers to maximize the positive effects and to minimize the negative effects of animation in children's lives.