We are IntechOpen, the world’s leading publisher of Open Access books
Built by scientists, for scientists

6,600
Open access books available

177,000
International authors and editors

195M
Downloads

154
Countries delivered to

TOP 1%
Our authors are among the most cited scientists

12.2%
Contributors from top 500 universities

WEB OF SCIENCE™
Selection of our books indexed in the Book Citation Index in Web of Science™ Core Collection (BKCI)

Interested in publishing with us?
Contact book.department@intechopen.com

Numbers displayed above are based on latest data collected.
For more information visit www.intechopen.com
Abstract

Puppetry has always remained a major tool of storytelling for masses. From its inception, this communicative art form has undergone changes, and with the advancement of technological interfaces, its structural space has received a series of modifications. Most puppetry involves storytelling, and its impact is determined by its ability to create patterns into the psycho-spaces of viewers. With changing times, the analog formats of puppetry are getting replaced by the digital objects. These digital objects are computer mediated in nature and have a key characteristic of engaging audiences with multimodal performative interactive system. In the current scenario, under the deep influence of ‘convergence culture,’ the traditional puppetry art form has not remained insulated from the digitized formations. These spaces are allowing a new alternative media output, which is digitized, watched, as well as promoted on digital screens. Under the wider array of networked spaces, this paper is an attempt to theorize the changing landscape of traditional puppetry art form into the corridors of digital objects. These digital objects have a nature of accommodating themselves into multiple channels of communication and triggering a plethora of imaginative spaces for spectators.

Keywords: multimodal, technical structures, puppetry, computer-mediated, communicative spaces

1. Introduction

Puppetry, as a traditional art and practice, involves storytelling, which is determined by its ability to create a fictional space for the viewers. However, with the advancement in the digital technology, there is a huge progression in the mode of “spectatorship.”

The animation of digital objects triggers the imagination of spectators in a different way. More and more spectators interacting with digital objects enter into a fictional space, which can be transformed into real time, which will provide possibilities for the process of engagement and co-creation.
With advancement in modern technology, we can simulate and preserve our cultural arts and heritage in a more interactive manner compared to only plain recording [1]. According to Kaplin [2], the digital puppetry is a revolutionary idea that expands the notion of puppetry beyond all definitions. He also describes that digital forms of puppetry will not mean the death of puppetry; rather, it's the preservation of historical, spiritual, and folkloric values.

While delineating the aspects of puppetry in India, there are different forms and practices among which string puppets, rod puppets, glove puppets, and shadow puppets are the most popular ones. The strings, rods, and gloves often used by puppeteers to animate and inanimate are getting replaced by animatronics and computers in this DIGI-driven spaces. According to Stephen Kaplin, there is a direct relationship that revolves around performers and the performing objects. He highlights the role of technology in assembling the gap between the performers and the performing objects. Specifically, the crafting pattern of various puppets comes up with the mechanism that helps puppeteers to involve into conversation through various means of technological possibilities.

"The puppet, poised between man and machine, a figurative, anthropomorphic character, but operated by technological means—whether rod, string, or something more—provided an artistic site through which to explore new potentials and anxieties around these developments" [3].

2. Extending the frontiers of puppetry into technological spaces

Puppetry as a communicative art space is gaining more and more momentum across multiple corridors, and in a parallel manner, it's becoming more globally interconnected. The relationship between the human actors and the puppets is undergoing drastic change. According to Kaplin [2], the actors and puppeteers do the same job of projecting characters. Generally, actors involve with the character through voice modulation, action, gestures, and costume elements. The mask becomes an aided element for projecting character, which gets classified into a crafted object. The crafted object when executed into performance takes the shape of a performing object. It is to be noted that as the distance widens between the object and the actor, more and more complex technological interfaces are needed to maneuver around the object and performance. To understand the relation between humans and the inanimate world, we need to have an entry point through puppetry, which depicts our daily practices with technology. Jane Benett, in philosophical terms, theorizes the new paradigm with a term she calls "thing power."

"Thing power has the rhetorical advantage of calling to mind a childhood sense of the world as filled with all sorts of animate beings, some human, some not, some organic, some not. It draws attention to an efficacy of objects in excess of the human meanings, designs, or purposes they express or serve. Thing-power may thus be a good starting point for thinking beyond the life-matter binary, the dominant organizational principle for adult experience" [4].

The spectators associated with this art form go through the process of imagination through the animation of digital objects and digital puppets. The imaginative space
is fictional in nature and has the key characteristic of digital “beings.” Digital objects are computer mediated and can be transformed into different ways that also provide opportunities for engagement and co-creation.

3. Puppetry and the newer aspects of media production

The digital puppetry is broadly dissected into two major segments, namely, puppetry in digital media and puppetry in live theater. While delineating this form of puppetry with digital media, it is to be noted that “mediatisation” plays a vital role in the meta-process through which almost all areas of social and cultural life are affected by the increasingly dominant role of modern media [5]. For this paper, the term “mediatisation” here generalizes the transfer and migration of puppetry to modern digital media. According to Tillis [6], digital puppetry offers the greatest challenge to conventional puppetry theory. Unlike live puppetry performances, puppetry in digital media is lacking in its presence in time and space, its unique existence at the place where it happens to be, and its aura of performance [7]. The digital puppetry is the process under which the digital code takes the form of live puppetry performances. The numerical representation of binary codes takes the shape of performative objects on the digital screens and creates fictional images in psycho spaces. Due to its flexibility and wider acceptability, digital puppetry has gained enough momentum among the masses. According to Wang [5], digital puppetry is without a doubt much more advantageously positioned in the marketplace when it competes directly with theater and other forms of live performance.

Despite drawing a strict line between puppetry and virtual puppets or performing objects, Kaplin [2] mentions four types of puppetry in digital media that are contradictory to the definition given by Levenson. These four types of puppetry, which Kaplin calls as “emerging sub-genres” of media puppetry, are: (i) docu-puppetry, (ii) virtual-puppetry, (iii) hyper-puppetry, and (iv) cyber-puppetry. According to Tillis [6], the digital puppetry performance is recorded, and the recordings further can be edited or manipulated prior to showing them to the audience. In this type of puppetry, the performance at all times works under the control of a human puppeteer performing in “real time.” The “real time” generally defines the synchronicity between the puppeteer’s control and the puppet’s result but not the vocal performance. From the media production aspect, the “tangible puppet” holds a significant position. According to Tilis [6], the tangible puppet is that which is capable of being touched physically, and it also refers to the digital films and video images that are a direct reference to original materials. Further, Tilis [6] proposes another theory on digital puppetry that classifies digital puppetry into three broad categories: (a) digital puppetry using tangible puppets or performing objects that are tangibly moved or manipulated; (b) digital puppetry using virtual puppets or performing objects; (c) digital puppetry using tangible puppets or performing objects that are intangibly moved or manipulated. On the other hand, “intangible or manipulated” puppets are related to the computer input device such as keyboard, mouse, and the joystick, which can be used for the movement, control, and manipulation of the puppets without puppeteers’ involvement in physical spaces.

While discussing digital puppetry, it is mandatory to discuss about CG (Computer Generated). According to Sinha and Udai [8], there are two main divisions of CG: non-interactive and interactive. Non-interactive or passive CG is a form of CG that
only allows one way of relaying information in which observers have no control over the images. On other hand, interactive CG allows users to interact with it. An example of this type of CG is a game of chess whereby the user makes a move before waiting for the computer to make its move. There are instances when interactive systems can be converted into passive computer-generated objects. We may take the example of a printed digital photograph, which has a nature of passive viewing and non-interactivity, but with proper usage of electronic data and appropriate CG software, it can be manipulated into an interactive object.

4. Puppetry as an instrument of storytelling

In India and in other parts of Asia, there are numerous forms of storytelling processes, and one of the classical ways is puppetry. Taking consideration of India, Katha (story) and Kathakar (narrator) plays an important role in narrating stories from societal, political, and cultural spaces. In this age of digital techno spaces and with the advent of new-age media culture, puppetry as a communicative space is getting under serious danger of extinction.

The starting point of this traditional storytelling process had evolved from theatrical performances, which has its anchoring in the oral material tradition. Gradually, storytellers used different visual devices and oral instruments such as scroll paintings, shadow figures, dolls, and other musical instruments. The process of storytelling got augmented by body movements, dance, mime, and gesticulation.

In different parts of India, there is puppetry culture. Rajasthan has Phad (Scroll Painting), in which the narrator tells a story on a huge picture scroll. The scroll has important scenes from local traditions. The storytelling process evolved with shadow theater that primarily focused on picture panels and scrolls. Themes of the shadow theater centred around Puranas and great epics like the Mahabharata and the Ramayana. In Indian states like Kerala, Karnataka, Maharashtra, Andhra Pradesh, and Odisha, the shadow theater genre is popular.

Sizes of puppets differ from 10 centimeters to 1 meter, and symbolically, puppets are linked to the traditional visual arts of different regions. With the passage of time, three-dimensional puppet theaters (rod puppets) and glove puppets (operated with a hand inside the puppet) evolved in India.

5. Involvement of puppetry in digital media

The computer performance and the digital technology have been major disruptive forces between humans and puppets. Specifically, in a DIGI-driven society, digital advancement and computer-generated imaginary provides ample space to come up with different categories. The most popular categories are:

a. Live puppetry in digital media that may be edited; b. Stop-action puppetry; c. Non-interactive virtual puppetry; d. Interactive virtual puppetry.

The digital revolution of computing and communication technology that has taken place since the 1980s has resulted in a rapid switch from analogue mechanical to digital technology. During the beginning of the 1990s, it was already time to affirm that digital was the emerging dominant media form, replacing analogue
television technology [5]. Over the past few decades, CG technology has become an area of proven artistic and commercial potential and has had significant impacts on non-interactive puppetry in digital media. In the present scenario, many recordings of live puppetry performances have been refined and blended with visual effects and computer animations prior to their releases. Apart from digital shadow puppetry that uses 2D, flat and tangible, puppets, there are also some examples of using recordings of hand shadows in digital media. Also known in cinema as silhouette, hand shadowgraph is a genre of shadow play where shadow images and videos are created using human hands. Although hand shadowgraph technically does not belong to the category of shadow puppetry, the terminology and visual aesthetics of both performing arts are the same.

Digital media has been used not only to produce and create puppetry but also as a practical medium of preservation. The development of television and archiving of recorded broadcasts provide an excellent way to document puppetry performances [9].

Stop-action puppetry in digital media is also known as stop-motion animation or stop-motion photography [10]. Any tangible object can be used as a performing object of a stop-action puppetry animation; it generally consists of three major categories: jointed 3D marionette puppets, 2D paper cut-outs, and clay objects. The jointed 3D puppets or models for stop-action puppetry are made of latex, silicone, or silicone skin with a wire armature. Stop-action puppetry film and animation that uses 2D cut-outs was influenced by the development of shadow theater in Europe. The most famous and commonly used input device and approach in interactive digital puppetry is the motion capture as some computer technology experts simply employ the term “motion capture” when referring to digital puppetry or computer puppetry. Sturman [11] defines “motion capture” as the combination of the art of puppetry (animating inanimate objects through direct manipulation) with computer animation.

Unlike real puppets, virtual puppets are not bound by natural and physics laws and are able to distort, float, and contort in any manner that may be unnatural to their physical versions. The virtual puppets can be controlled or manipulated by animator(s) using computer keyboard or other input devices without the participation of recognized conventional puppeteer(s). With the advancement of technological interfaces, the dimension of puppetry is undergoing meteoric changes while maintaining its social structure and cultural values. The digital interface is enabling the traditional communicative art form to relocate its venture into the virtual environment while upholding the basic tenets of communicative principles.

6. Conclusion

With the advancement of technology, there has been significant growth in storytelling techniques. The storytelling spaces are getting adjacent with digitized devices marked with the feature of convergence, interactivity, and non-linear synchronicity. However, since puppets have their roots in the traditional storytelling process and with the advancement of technological spaces, the digital code is transcendent in live puppetry performances. This transformation marks the significance of binary codes that take the shape of the ‘screens performative object’ and play an essential role in the storytelling spaces.

In the computer-mediated storytelling process, gestures and expressions do not remain confined to tangible and physical objects; the dramatic enactments cross over
to digital objects. This evolved space is powerful enough to acquaint with cognitive competence and also to interline with the contemporary storytelling process assisted with features of motion-sensing technology and computer animation. Interestingly, puppetry as a communicative platform has a classical storytelling orientation; however, with the growth of medium and technological shift, this medium transcended into an ‘Object,’ capable enough to acquaint with digital-storytelling mediums.

Author details

Neelatphal Chanda
Department of Media Studies, Christ University, Bangalore, India

*Address all correspondence to: neelatphalchanda48@gmail.com

© 2023 The Author(s). Licensee IntechOpen. This chapter is distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/3.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.
References


