

The Role of Modern Technology in Preserving and Evolving Indian Classical Dance and Music Traditions



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Abstract

There are a few terms with differences in the meanings but the basic concept is approximately the same i.e. Music and Technology, Musical Technology, Technological Music, Technology and Music, Technology with Music, Music with Technology, and so on. Sound work as a joining bridge between them brought a profound change in the field of music, according to the upcoming generation students should have a basic knowledge of scientific procedures and systematic analysis of different musical phenomena. The utilization and delicacy handling of devices like gramophone records, microphones, amplifiers, radio, talkies, television, computer technology, and printed matters, etc. are the basic demands for this technological generation. From ancient times music in India was practiced since the Vedic period and was named Guru shishyaparampara where students were the followers of their teachers and were the source of knowledge and curriculum. Nowadays the involvement of technology occupies this place not completely but to some extent. Indian Classical Dances are also not unaware of the involvement of technology. Here in this paper, the things will be discussed how the involvement of technology and how it affected (both ways positively and negatively) the music and tradition of Indian Classical Dance forms. Technologies like machines, operating devices, instruments, and computer applications that made performances and practices quite easy and affordable will be discussed in this article.

Keywords: Music, Technology, Indian Classical Dance, Sound, Devices

Research Paper

Introduction

Indian classical dance forms are an integral part of the civilization of India which traces its origin from the Vedic era. These are the customary artistic expressions and traditional cultures with deep historical roots in India. Classical dance forms are the collaboration of glorified body postures, facial expressions, intricate rhythmic foot patterns, codified hand gestures, and graceful presentation of mythological stories. Indian Classical Dances are nine in number with their geographical emergence from different states in India. Nine prominent classical dance styles create an environment of unity which makes all dance forms with their difference in culture and traditions as one.

Eight classical dance styles of India are:

- Kathak (North India)
- Bharatnatyam (Tamil Nadu)
- Manipuri (Manipur)
- Odissi (Odisha)
- Kathakali (Kerala)
- Mohiniattam (Kerala)
- Kuchipudi (Andhra Pradesh)
- Sattriya (Assam)

In all the aspects an Indian classical dancer needs an effective communicative medium for the success of the presentation and here comes the significant role of Music and Technology.

Influence of Music

“According to the 13th-century Indian musicologist: Pandit Sarang Deva- to sing (lyrics), to play (instruments), and to dance is the complete definition of music. The amalgamation of these three is known as Sangeet(music). In fact, all three arts are independent from each other, yet they are related to each other.

He also described – “नृत्यंवाद्यानुगमप्रोक्तंगीतानुवर्तीच।” ॥

संगीत रत्नाकर (१/२४)

Meaning is: that dance follows the instrument because the dancers need the support of Mridang, Tabla, or other percussion instruments for rhythm, whereas the instrument follows the song and melody. After all, while singing and playing, the instruments follow the song. That is why these three are the dependent variables to each other and thus create a terminology which is known as Music”. (कर्ण 99) “According to Swami "Pragyananda" in his article which is published in Cultural Heritage of India, says "the theory of music consists of grammar, history, science, acoustics, physics ethnography, psychology, aesthetics, philosophy, and holds many dimensions in it".

Humans by nature are communicators and always in search of mediums to express their thoughts to share the innermost expression outside the world and same happens with the dancers who express the presentation of mythological stories where music and technology or music with technology act as an extremely effective mode of expression and communication. In this, the audience too is part of this generation and wants to witness some exclusive productions where the use of technology adds a larger-than-life spectrum. (Paul 1) Indian Music accompaniment develops a traditional bond between dance and music and both music and technology have had a significant impact on Indian classical dance, shaping the way it is performed, taught, and appreciated. The music associated with the classical dance of India is an essential component, often following melodic and complex rhythmic patterns.

Classical Indian music is traditionally categorized into two main streams:

Hindustani (from northern India) which is commonly accompanied in Kathak, Manipuri, Sattriya, and Odissi where the music is performed with traditional instruments like the tabla, pakhawaz, khol, violin, shehnai, sarangi, sitar, santoor, sarod, flute and accompanied by vocalists on harmonium.

Carnatic (from southern India) which is seen in Bharatnatyam, Kuchipuri, Kathakali, and Mohiniattam where the music is performed with traditional instruments like veena, mridangam, kanjira, violin, tambura, ghatam, morsing, veena, flute and accompanied by the vocalists.

“According to the instrumental classification system of Erich Moritz von Hornbostel and Curt Sachs or we can say Hornbostel-Sachs’s instrumental classification system, instruments are classified in 5 different categories according to the production or creation of sound from them that are Idiophones: sound produced by the body vibration of the instrument. Membranophones: sound produced by the vibrating of tightly stretched membrane i.e. drum. Chordophones: sound produced by the vibration of a string stretched between fixed points i.e. guitars, violins, etc. Aerophones: sound produced by vibrating air and Electrophones: sound produced by electric action or amplification”. (Oyer) In Indian terminology according to the Natyashastra, Acharya Bharat Muni also classified the instruments into four broad categories: Tat Vadya(chordophones): string vibrating instruments, AvanadhVadya (membranophones): stretched vibrating membrane instruments, SusirVadya(aerophones): mass of air and reed to vibrating instruments and GhanVadya(idiophones): striking and vibrating as whole instruments”. (अनामिका 30)

Indian Classical Dance uses all four categories in the accompaniment of Dance. For Example- Kathak Dance is a North Indian classical dance that follows Hindustani Classical Music and is accompanied by vocalists generally with a harmonium which is a reed instrument played by blowing of air inside the box, melody on flute which falls under the aerophone category, metronome on the Sitar, Santoor, Sarangi or Sarod which are string instruments falls under chordophones, rhythm on Indian drum known as Tabla and Pakhawaj which falls under the category of membranophone category and the dancer itself wrap bells Ghungroo which is an example of idiophones. Musical instruments with the artists build great support for the dancer and many scholars believe that the mind body and soul of the Indian classical dance fall on the rhythm, melody, and expressions where rhythm and melody are directly followed by the accompanying artists during the performance.

Technology in Indian classical music

Technology is derived from the Greek word "Technologia" and music also comes from the Greek word "mousike" and there is a very strong bond between them. (Torkel Son 65) The involvement of technology in



the music of Indian classical dance made it more efficient and affordable in terms of learning and performing. Nowadays performances, stage techniques, decorations, costumes, designing and crafting, music production, etc. there is a huge involvement of technology. With the development of global technologies, Indian classical dance also adopted several techniques for performances and learning. Several terminologies are introduced such as social media, media promotions, recording audio and visuals, preserving and saving, digital learning, set designing, etc. are now a day a basic requirement for the success of the presentations. Digital initiatives taken by the institutions and organizations during the COVID period were only the platform for the performers to perform and for the students to learn and seek knowledge is the ideal situation for the involvement of technology in Indian Classical Dance. The studio recording, live sound equipment, motion capture suits, interactive backdrop themes, spotlight choreographies, and immersive digital experiences, technology has breathed new life into the classical dance forms by captivating the dancers and audience with its boundless potential for innovation.

To understand the involvement of Technology in Indian Classical Dance forms I broadly divided it into 3 major parts:

Audio

Video

Light

- **Audio:** Advancements in audio technology, the influence of Western instruments, the use of tonal vibrations, the recording of the sound in studios, and the use of high-tech gadgets have transformed the Indian Classical Dance which is now taught, learned, and performed. The use of microphones, electrical devices, and computer software is an essential and crucial part of live performances. Maximum performances are performed on pre-recorded audios or tracks in which dancer with musicians collaborates in the studios. Recording, mixing, and mastering of musical tracks are in high demand for performers, video creators, choreographers, and directors. "Traditionally, the recording was done on tape but now after the involvement of technology and several terminologies like recording, overdubbing, and multitracking are providing a lot of scope to the performers to explore and equip their choice of music in which they are going to perform" (Weekhout). Besides the normal microphones

vocalists are now using a cardioid dynamic microphone for the live performances which cuts the external noise. Percussion instruments like tabla, mridangam, khol, kanjeera, maddalam, etc. use microphone condensers for a better quality of sound also there is a technology of a clip size microphone attached on both the membrane bass and treble side of percussion instruments. Dancers are using mouse-shaped small foot microphones which clarify the foot sound mingled with the Ghungroo, high quality of mixers and condensers are used for multiple programming in live shows of Classical Dances now a day. For the practice, there is an availability of several apps or application software on both computers and cell phones such as:

- Lehra Studio Sarangi
- Lehra Studio Pro
- Lehra Studio Ultimate
- Kathak Studio
- I-shala, e-tabla
- How to Dance Bharatnatyam
- Learn Kathak
- Natya
- Learn Dance - Kuchipudi
- KathakSaangi etc.

These are now helping a lot to the dancers to correct their acknowledgment of rhythm and its cycle, knowledge of tunes, correction of time signatures, variations in instrumentalism, and many more features that are an essential part for the students and performers in their training.

Video

Indian classical dances are profile dance forms that are now captured easily with camera technologies and devices. Even every person has quality pixel cameras on their cell phones. Platforms like Facebook, YouTube, Instagram, and other social media channels have provided classical dancers with a global stage to showcase their talent. Dancers can now reach a wider audience, garnering appreciation and recognition beyond geographical boundaries through hybrid virtual live streams, digital resources, video tutorials, and online platforms. Dancers sharing their artistry work via video and getting rewarded by the public success is making the art of a dancer more creative and innovative. Capturing slow-motion videos, the concept of multi-camera concerts, moving cameras, and many other

concepts are now a day introduced in the live performances of Indian classical dance concerts. Again, there are various applications and software that are being used by video creators, promoters, and dancers themselves.

Light

Lights and light design have great importance and use on modern stage. The design of the light has a major influence on the mood of the dancer concerning the audience's experience. A very necessary and crucial requirement on the stage for live performances is the designing and plotting of the lights. Here also technology is at its height that was not possible before. Traditionally Indian Classical Dance forms relied on sunlight and lamp light, earlier; gas pots were used for lighting lamps after the invention of electricity, and huge power bulbs and tube lights plotted with reflectors were used for the arrangement of light on stage. Evolution continues with a variety of lightings such as spotlight, solar light, daylight, baby spotlight, and flood light. "Projection Lamps" (Azad 241) are also being introduced for the lighting on the stage which involves frontal condenser lenses used for intense lightning. With the drastic evolution of technology, the lights are being used as backdrops, shadow lightings, spot lightings, DMX (digital multiplex) lightings, over overshoots are now processed with electronic devices. Dancers are designing costumes according to the stage and lights are giving charm to the face makeup and costumes are now being introduced in Indian Classical Dance forms.

Conclusion

Intervention of the technology and music in the Indian classical dance forms has given it a new dimension and different direction which made it easy to acknowledge and entertain. Traditional music and musicians with the help of technology are now able to create new compositions which are highly appreciable and beneficial for the Indian classical dancers. Even dancers can bring him or her in front of the audience in a systematized way so that the audience can easily understand and appreciate this traditional art form. Although everything has both the perspective with positive and negative sides to it, on one side it has helped in spreading and expanding the limit of the performance, on the other side it is depolarizing the experience of the traditional teaching-learning system which is not favorable for the upcoming generation. It promotes escapism of the demerits in artists by presenting and highlighting its positive aspects only. Various websites and applications are serve as a learning resource and can be easily accessed anytime and from anywhere. Besidethe fiber-optic connections and high-performance routers internet connectivity and networking is a common and complex problem in India. During the COVID-19 pandemic, people were forced to be quarantined at home that time apps, software, and the internet worked as blessings for people all around the world. However, smartly handling the technology may be quite fruitful and productive in terms of learning. With all the discussions above we can say there is an impact of music and technology on Indian classical dance.

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