UGC-CARE Listed ISSN: 2349-4654
Volume : 12, Issue-1, January 2024

Effect of advancement in audio technology on production of Bihu music and impacts on cultural authenticity

Dr. Ritupaban Kotoky
Guest Faculty, Department of Instrumental Music, Rabindra Bharati University, Kolkata

Prof. Sanjoy Bandopadhyay
Ustd. Allauddin Khan Professor (Retd.), Department of Instrumental Music, Rabindra Bharati University, Kolkata

Abstract

The advancements in technology strongly influenced human existence. The inquiry delved into understanding if technology, especially digital audio technology, substantially inveigled Bihu songs. If yes, then what are the implications? The investigation used twenty-one in-depth open-ended interviews with the stakeholders, including intimately involved Bihu musicians and recording engineers. A systematic thematic analysis of the received data helped to understand the changes in audio recording practices in the Bihu recording scenario. The impacts on the cultural authenticity of Traditional Bihu, influence on the dissemination process, and the creation of a new Bihu subgenres Bihu Suria Gaan, which is a blend of tradition and modernity.

Keywords : Digital Audio Technology, Cultural Authenticity, Analogue Recording, Dissemination, Suriya Bihu, Traditional Bihu

Research Paper

Introduction

Bihu is the most important festival of Assam. The agricultural calendar of Assam marks Bihu as a festival of dance and songs along with other cultural activities (Pathak and Kalita 117). There are three types of Bihu– *Bohag* or *Rongali*, *Magh* or *Bhogali*, and *Kati* or *Kongali* Bihu; the *Rongali* is the main among all these three types. The word Bihu also signifies the aspects like *Bihunach* and *Bihunaam*. Here, *Bihunach* denotes the dance styles, and *Bihunaam* the song styles. The people of the soil naturally compose and perform Bihu. The impromptu lyrics here primarily focus on joy, sorrows, sufferings, and challenges (Chetiapator 12). Some Bihu lyrics appear erotic(L. Gogoi).[1] Traditionally, Bihu uses musical instruments like Dhol, Taal, Toka, Pepa, Sutuli and Gogona. Bihu's iconic rhythm and melody are its identities. The Bihu sounds travel from the village streets to the loudspeakers in urban Assam (Kheshgi). The wide availability of advanced technology, especially digital recording technology, influenced changes in Bihu. This investigation tried to shed light on the changes in music production and the impacts on the cultural authenticity of Bihu music.

Evolution of Bihu music over the years

The evolution of Bihu music over the years in Assam is a fascinating journey marked by cultural dynamism and changing societal influences. Originating from the Assamese communities' agrarian rituals the Bihu music has undergone a transformation, retaining its cultural essence (L. Gogoi). Assam is an agricultural state. Agriculture being the chief occupation of the people, the civilization of Assam has tended to center round villages (M. Barua). *Husori,*[2] the traditional performance incorporates both *Bihunaam* and *Bihunach* and performed with traditional musical Instruments; these performances used to take place in the courtyards of the residents and bear spiritual flavor (Bora, Das). During 1826[3] Bihu faced some serious challenges but later received a tremendous boost when Bihu was presented at *Latasil* playground of Guwahati in a big way in 1952. This venue is the biggest Bihu *Moncho* even today (Pathak and Kalita 8)

A quick overview of digital audio technologies

Digital recording technologies have revolutionized music production, providing unparalleled flexibility and creative possibilities. Unlike analog systems, digital recording converts sound waves into numerical values, facilitating precise manipulation of audio data (Rumsey and McCORMICK 228). The digital audio workstations, acronym DAW, have become central to recording studios offering extensive editing and mixing capabilities. The other important area is the virtual musical instruments.

Digital audio recording environment

A DAW is a graphically depicted visual environment on a computer screen that facilitates the processing of two primary types of data: digital audio and MIDI data (Marrington 77-89). The audio industry gradually became digital during early 1980s when the CD made its debut as the first consumer digital music medium. Additionally, commercial sound systems are being developed creating significant advantages through digital technology. Analogue audio signals are transformed into digital data in digital audio systems, which is subsequently transferred and processed while in digital form (Yamaha). The audio engineers conveniently add different sound effects, add or reduce the sound levels, and also work on the waveforms; all these were not possible under the analogue recording setup (Producertech).

Virtual Musical Instruments

Any computer program that produces sound is known as a virtual instrument. So, one can compose music using virtual instruments (Edney). Virtual instruments and software synthesizers have expanded sonic options, fostering innovation in sound design. Virtual musical instruments are the products of Virtual Studio Technology or VST.

While digital technologies have democratized access to high-quality recording tools, mimicking analogue sounds, and also creating new sounds, debates persist about potential losses of warmth compared to analogue recordings and challenges in preserving authenticity, especially in traditional musical forms.

Impacts of Digital Recording Technology and Virtual Musical Instruments on Tribal Music

The transformative impact of digital recording technology on tribal music has profoundly reshaped traditional musical expression within indigenous communities. In contemporary popular music, the extensive use of Synth-pads has become prevalent, generating synthetic sounds that sustain for prolonged durations, contributing to the evolution of timbre and dynamics (Deruty et al. 38). Digital Audio Workstations [DAWs], in contrast to analog studios, offer numerous advantages, allowing seamless blending of multiple takes, application of audio effects, and creation of intricate musical arrangements with realistic virtual instruments (Marrington 78). The advancements with new facilities in audio recording industry with the introduction of DAWs led to the discontinuation of analog spool tape recording practices.

DAWs empower musicians to work flexibly from diverse locations, fostering the growth of independent music creation, blurring the line between production and composition. With high-quality acoustic options, artists now assume multiple roles, including composer, producer, and songwriter (Walzer 79-94). Virtual musical instruments, created from live performances transformed into sample libraries, play a prominent role in modern music production, replicating the expressive characteristics of real instruments (Edney). There is a deep concern about Auto-Tune's impact on cultural authenticity (Reuter). The reason is the Bihu note positions run on its traditional system and do not go as per the midi scale. The Auto-Tune facility rectifies the pitch deviations and convert the traditional renderings in midi scale. However, the digital tools facilitate collaborations, integrating traditional tribal sounds into contemporary music—a dynamic fusion bridging the gap between heritage and modernity.

The overall impact of digital recording technology on tribal music reflects a complex interplay of preservation, innovation, and the evolving dynamics of cultural identity.

Research Gap

In the culmination of this literature review, it becomes evident that while there are several research on Bihu music's cultural significance, historical evolution, and traditional aspects, there is a noticeable gap in exploring its intersection with digital technology. Despite the pivotal role technology plays in contemporary music production, the impact of digital recording and production tools on Bihu music remains relatively uncharted territory. As Bihu music evolves alongside the dynamic landscape of Assamese culture, further research delving into the assimilation of digital technology, its challenges, and its multifaceted impacts on authenticity, innovation, and dissemination within the realm of Bihu music is essential. This exploration promises a deeper understanding of the ongoing transformation of traditional music and sheds light on the delicate balance between preserving cultural heritage and embracing the opportunities presented by the digital age.

Methodology

Data Collection

The investigation into the impacts of digital technology on Bihu music spanned from March to July 2023, employing a systematic and thorough approach. Open-ended interviews were conducted with Bihu music experts, specifically those connected to music rendering and recording. The interviewees were queried about (a) changes in Bihu songs, (b) advancements in recording facilities, (c) alterations in dissemination methods in digital era, and (d) the effects on cultural authenticity.

Data Analysis

The qualitative data obtained from the interviews underwent thematic analysis. This analytical process was designed to extract meaningful insights into the cultural, distributional, and traditional implications resulting from technological influences.

This research methodology facilitated a comprehensive understanding of the evolving landscape of Bihu music production in response to technological advancements. By triangulating data from interviews with diverse perspectives, the research aimed to present a well-rounded view of the intricate interplay between tradition and technology in Bihu music.

Results

History of the transition from analogue to digital

Guwahati, used to rely on magnetic-tape spool recorders, emerged as a recording hub for traditional Bihu and modern compositions significantly influencing the region's music industry before the transition to digital recording setup (Dasmoran; Chakrabortty; M. J. Bora; Bora Oja).

Later, a private digital studio 'Audio World' was set up in Jorhat and came up as the pioneering Digital Recording facility in Upper Assam (M. J. Bora). The songs for the Keteki cassette recording by Bhupen Uzir was the first recording of Bihu songs. The music was recorded outdoors. This recording marked a history in the Bihu map and started an era of more effective distribution and archiving (Chakrabortty; M. J. Bora). Before dedicated studios, M. J. Bora used innovative methods, recording Bihu songs with a standard cassette recorder called 'Deck.' TASCAM DA88 was widely used in different popular studios in Assam. The tech-advancement jolt first affected the overuse of DA88 and opted for tools like Roland VS-1680. Digi 2 Music, in 1996–1997, first started a fully digitalized audio recording environment, and Bhupen Uzir's studio Auditek and Jatin Sarma's Film Craft were important ones to begin Private Studio culture in Assam (Dasmoran).

Evolution of Recording Technology

The evolution of recording technology reflects a transition from spool recording to the adoption of computer-based platforms such as Macintosh and Windows (Dasmoran). The modern recording facilities have embraced high-quality instruments and sound cards, exemplified by the transition to RME sound cards or the Antelope Audio Interface (M. Gogoi).

This evolution has not only impacted recording practices but has also influenced the music distribution landscape, moving from traditional formats like cassettes to more contemporary mediums such as CDs, DVDs, pen drives, and online platforms like Spotify and gaana.com (Ahmed).

Modernization of Bihu Music

In the context of Bihu music, the advent of digital audio technology has led to a transformative modernization of the genre, shifting from traditional live performances with full bands to a greater reliance on DJs (A. Saikia). Bora, a proponent of this evolution, advocates for aligning Bihu music with contemporary tastes. He suggests that alongside audio modernization, there should be a corresponding modernization in the visual aspects including performance outfits (R. Bora). The incorporation of Bass Guitar and Keyboard, alongside traditional instruments, further underscores the adaptability of modern Bihu music (Chakrabortty; M. J. Bora; Dasmoran).

Clash of Traditions and Modernity

A noticeable clash exists between supporters of modern instruments and those advocating for the preservation of the tradition. Some groups strongly criticize the use of guitars in Bihu, emphasizing the importance of maintaining traditional instruments like the Flute and Pepa (S. C. Barua; Borthakur). Cautionary voices, including Saikia and Kotoky, warn against excessive modernization, expressing concerns about the potential loss of the original composition's soul and authenticity (Kotoky; I. Saikia).

As an adverse consequence of these changes, there has been a noticeable decline in the significance of local instruments, leading to serious financial challenges for traditional musicians (A. Saikia). Bihu enthusiasts like Gogoi actively strive to preserve the traditional purity of Bihu, emphasizing the cultural authenticity that needs safeguarding (S. Gogoi). The shift from the traditional pentatonic structure to a more classical sound raises concerns about the potential loss of the music's traditional values (Phukon).

While some listeners are distinctly unhappy with the incorporation of EDM in Bihu that compromise the cultural authenticity, others, like Sarmah, argue that change is inevitable and stresses the importance of embracing new sound in the traditional Bihu frame to cater to a huge listening public with new changes in taste (Sarmah).

On Audio Recording Setup Development

The evolution of Bihu music recording reflects a journey from analogue to digital, impacting creativity significantly (Dasmoran). Initially, limited private studios in Guwahati used industry-standard machines like Tascam's DA88 for live Bihu song recordings (Dasmoran; Bora Oja; et.al). The shift to Hybrid recording, that focus on multi-track recording, witnessed the crucial role of the DA88 in studios like Jyoti Chitraban, while pioneers like Filmcraft and Auditek also emerged (M. J. Bora). The late 1990s marked a game-changing moment with fully digitalized audio recording, led by Digi Music-2's Roland VS-1680 in Guwahati. Subsequent versions revolutionized capabilities until around 2002-03 (Chakrabortty; Dasmoran). The transition to computer-based recording allowed for convenience and flexibility, leading to the decline of traditional studios. Artists, using software like Nuendo and Cubase, could now record individually in home studios (M. Gogoi).

In essence, Bihu music recording evolved from analogue to digital, culminating in computer-based recording, democratizing the process, and preserving the musical heritage for future generations (Ahmed).

Digital Recording and Applications of Non-traditional Musical Instruments

The evolution of Assam's Bihu music reflects a dynamic interplay between tradition and modernization, primarily shaped by the assimilation of digital audio technology (Dasmoran). Despite the positive impact of technology on enhancing the auditory experience and expanding the global reach of Bihu music, challenges arise as artists grapple with the implications of these changes (Chakrabortty). Financial pressures within the industry have driven musicians to invest in high-quality equipment, fostering innovative approaches to preserving Bihu music's essence (A. Saikia). This shift includes the incorporation of new instruments like drums, guitar, and keyboard, deemed essential for maintaining the genre's dynamism and relevance. Globalization further propels Bihu music onto international platforms, enhancing its global impact (R. Bora). However, with progress comes concern. The emergence of Bihu Suria Gaan introduces a commercial dimension with rhythm, bass, and distortion guitars (S. Gogoi).

Adverse effects of Technology Advancements on Bihu

Assam's cherished Bihu song tradition faces significant challenges due to technological advancements (Phukon). Modernization, recording techniques, commercialization, and EDM's influence threaten Bihu music's authenticity (I. Saikia). The clash between nostalgia for traditional methods and contemporary setups poses risks of compromising the raw and the authentic sound of earlier recordings. EDM is viewed as a serious threat to Bihu's rich heritage (Phukon; Kotoky; Pujari). The changes reflect commercial motives, diluting authenticity, and a growing gap between traditional and modern instruments.

People of the soil raise deep concern about YouTube videos as most of the videos are focused on commercialization and compromise with the core traditionality of Bihu (Pujari). Concerns over the influence of inappropriate music underscore the need to safeguard Bihu's cultural identity amid technological progress (Borthakur). The whole process calls for a serious attitude toward maintaining a good balance between tradition and modernization (Ahmed). On a similar tone, Chakrabortty feels that a careful and balanced strategy is necessary to navigate these revolutionary currents and ensure the continued cultural value of Bihu music in the changing musical world (Chakrabortty).

Discussions

The research data from interviews offers a comprehensive view of the evolution of Bihu music in Assam, specifically focusing on the transition from analogue to digital recording and their impacts on Bihu culture.

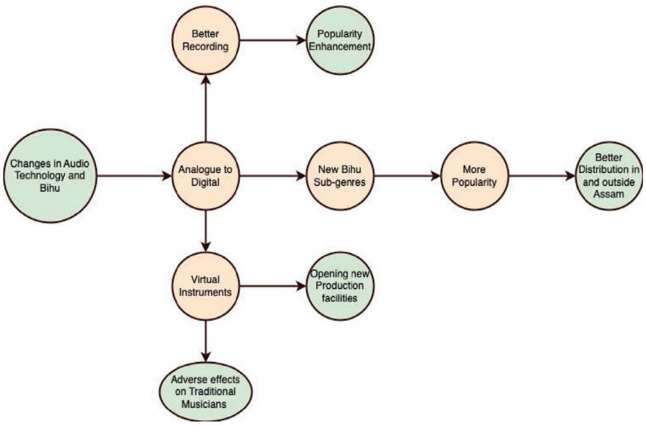

Figure 1. *New Audio Technology and Bihu*

Establishment of private recording studios was pivotal in this shift reshaping music production methods. Digital formats, such as CDs, DVDs, pen drives, and online platforms, replace traditional cassettes, transforming music distribution.

The investigation showcased the evolution of recording technology, progressing from spool recording to computer-based platforms, and the use of new musical instruments including the VSTs and DAWs. *Jyoti Chitraban* and Digi 2 Music Audio Studio played significant roles in these advancements. The incorporation of digital audio technology in Bihu music led to a move from traditional performances to increased reliance on DJs, sparking debates between tradition preservation and modernization advocates.

The adverse impacts of technology on Bihu music are discussed, including the decline of local instruments and financial challenges for traditional musicians. Preservation efforts, led by enthusiasts like Gogoi, emphasize safeguarding Bihu's cultural authenticity amidst changing to digital landscapes. The narrative on recording evolution, from analogue machines to digital recorders, highlights the democratization of the recording process, empowering individual artists and preserving Bihu's heritage.

The discussion explores non-traditional instruments' applications and the challenges of balancing tradition and modernization. Concerns about diluting Bihu's essence through excessive experimentation underscore the need to maintain regional identity. In summary, the qualitative research provides nuanced insights into the impact of digital audio technology on Bihu music, capturing the complexities of balancing tradition and modernization in the ongoing evolution of this folk tradition in Assam.

Conclusion

The development of Bihu music in Assam depicts a dynamic interplay between tradition and modernization. The shift from analog to digital audio recording across the state has revolutionized production methods, democratizing the creative process. The influence of digital audio technology has steered Bihu music away from traditional live performances towards EDM based music experiences, sparking a conflict between proponents of modern instruments and guardians of tradition. Unfavorable consequences include the diminishing presence of local instruments and financial hardships for traditional musicians, underscoring the importance for preservation initiatives.

Bihu's progression mirrors the intricate balance between innovation and the preservation of cultural authenticity. As the genre encounters transformative changes, upholding this equilibrium is pivotal for its enduring cultural significance.

Footnotes

1. There is an age-old folk philosophy all over the world that singing sexually explicit songs and performing sensual dance near the paddy field make the earth more fertile (L. Gogoi 25).
2. Husori incorporated the spiritual flavour into its repertory after the Nava-Vaishnavism movement in Assam in the 15th century, by Mahapurush Srimanta Sankardev (Das). Husori Bihu was initially performed under trees or on paddy fields.
3. In 1826, Treaty of Yandabo led to recruitment of Bengali clerks under the British administration in Assam. This newly created aristocrats looked down on Bihu music, branding it as lower-class culture. In 1898, an appeal to the British Government led to the ban of Bihu performances, citing it as erotic. Seni Gaabhoru and Moimat Tatinga along with Aanondo Das successfully convinced officials to lift the ban in 1898 through an energetic performance and explanation of Bihu's cultural significance (Das).
4. Here ‘live Bihu song’ indicates to the single take recording that record the Bihu song along with all supporting instruments.

References

Ahmed, Fahim Ziyad. *Personal interview with Fahim Ziad Ahmed by Ritupaban Kotoky*. In person, 8 Nov. 2023.

Barua, Maan. “Ecological Basis of the *Bihu* Festival of Assam.” *Folklore*, vol. 120, no. 2, Aug. 2009, pp. 213–23. *DOI.org (Crossref)*, https://doi.org/10.1080/00155870902969400.

Barua, Sanjeeb Ciku. *Personal Interview with Sanjeeb Barua(Ciku) by Ritupaban Kotoky*. In person, 11 Nov. 2023.

Bora, Mans Jyoti. *Personal interview with Manasjyoti Bora (Bubu) by Ritupaban Kotoky*. In person, 7 Feb. 2023.

Bora Oja, Somnath. *Personal interview with Somnath Bora Oja with Ritupaban Kotoky*. In person, 15 Aug. 2023.

Bora, Ranjit. *Personal Interview with Ranjit Bora by Ritupaban Kotoky*. In person, 8 July 2023.

Borthakur, Sangeeta. *Personal interview with Sangeeta Borthakur by Ritupaban Kotoky*. In person, 11 Nov. 2023.

Chakrabortty, Gautam. *Personal interview with Gautam Chakrabortty by Ritupaban Kotoky*. In person, 8 Nov. 2023.

Chetiapator, Tokendra nath. *Bihu Gitot Samajit Chitro*. Meghnath Borgohain, 1951.

Das, Monideepa. "Bihu – Then, Now and In-Between." *East India Story*, 14 May 2022, https://eastindiastory.com/bihu-then-now-and-in-between/.

Dasmoran, Anupam. *Personal interview with Anupam Das Moran*. In person, 8 May 2023.

Deruty, Emmanuel, et al. "On the Development and Practice of AI Technology for Contemporary Popular Music Production." *Transactions of the International Society for Music Information Retrieval*, vol. 5, no. 1, Feb. 2022, pp. 35–49. *DOI.org (Crossref)*, https://doi.org/10.5334/tismir.100.

Edney, Connor. "What Are Virtual Instruments? How to Make Digital Music." *RouteNote Blog*, 8 Sept. 2022, https://routenote.com/blog/what-are-virtual-instruments/.

Gogoi, Lila. *Bihu Eti Samikshya*. Durgeswar Hazarika, Dibrugarh Book Stall, Dibrugarh, Assam, 1969.

Gogoi, Madhurjya. *Personal interview with Madhurjya Gogoi by Ritupaban Kotoky*. In person, 7 Jan. 2023.

Gogoi, Sunit. *Personal interview with Sunit Gogoi by Ritupaban Kotoky*. In person, 7 May 2023.

Kheshgi, Rehanna. "Navigating Generational Frictions Through Bihu Festival Performance in Assam, India." *MUSICultures*, vol. 44, no. 1, 1, 2017. *journals.lib.unb.ca*, https://journals.lib.unb.ca/index.php/MC/article/view/26078.

Kotoky, Kashmiri. *Personal interview with Kashmiri Kotoky by Ritupaban Kotoky*. In person, 8 Aug. 2023.

Marrington, Mark. "Composing with the Digital Audio Workstation." *Bloomsbury Academic*, 2017, pp. 77–89.

Pathak, Dev Nath, and Moureen Kalita. "Folklore's Contemporariness: Dynamics of Value Orientation in *Bihu*." *Journal of Human Values*, vol. 25, no. 3, Sept. 2019, pp. 177–89. *DOI.org (Crossref)*, https://doi.org/10.1177/0971685819861220.

Phukon, Dilip. *Personal Interview with Dilip Phukon by Ritupaban Kotoky*. In person, 8 Nov. 2023.

Producertech. "What Is Digital Audio?" *Producertech*, 3 Jan. 2023, https://www.producertech.com/blog/what-is-digital-audio.

Pujari, Aditya. *Personal Interview with Aditya Pujari by Ritupaban Kotoky*. In person, 8 May 2023.

Reuter, Anders. "Who Let the DAWs Out? The Digital in a New Generation of the Digital Audio Workstation." *Popular Music and Society*, Oct. 2021, https://doi.org/10.1080/03007766.2021.1972701.

Rumsey, Francis, and Tim McCORMICK. *Sound and Recording - an Introduction*. 5th ed., Focalpress, 2006, https://nitsri.ac.in/Department/Electronics%20&%20Communication%20Engineering/(Music_Technology)_Francis_Rumsey,_TIM_MCCORMICK_-_Sound_and_Recording,___An_Introduction-Focal_Press_(2006).pdf.

Saikia, Ankur. *Personal interview with Ankur Saikia by Ritupaban Kotoky*. 7 Aug. 2023.

Saikia, Indukalpa. *Personal Interview with Indukalpa Saikia by Ritupaban Kotoky*. In person, 8 Aug. 2023.

Walzer, Daniel. "Blurred Lines: Practical and Theoritical Implications of a DAW-Based Pedagogy." *Indiana University-Purdue University Indianapolis*, vol. 13, no. 1, 2020, pp. 79–94.

Yamaha. "Better Sound for Commercial Installations." *Yamaha*, https://usa.yamaha.com/products/contents/proaudio/docs/better_sound/part1_06.html. Accessed 25 Nov. 2023.