



Strings and Scripts: ChatGPT's Role in Shaping Indian Music



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Abstract

This research paper examines the role of ChatGPT, a generative AI language model, in shaping the evolving landscape of Indian music. With its deep cultural roots and diverse genres from Hindustani and Carnatic classical traditions to regional folk and contemporary fusion. Indian music demands both nuanced understanding and creative adaptability. The objective of this research is to identify and position ChatGPT as a valuable tool for music learners, composers, and researchers, given its capabilities in multilingual explanation, lyric generation, contextual knowledge, and more. The research method employed is the mixed-method approach. This paper proposes a vision of a "Digital Gurukul," where tradition and technology converge to sustain and expand India's musical heritage.

Keywords: ChatGPT, MP3, Indian Music, Digital Gurukul, Evolution.

Research Paper

Introduction

The twenty-first century has witnessed the convergence of art and artificial intelligence, with tools such as ChatGPT entering domains traditionally dominated by human creativity. Music, especially within the Indian cultural context, occupies a central position in identity formation, heritage preservation, and contemporary artistic expression (Bharucha 12). Indian music, with its diverse traditions of ragas, talas, and poetic lyricism, is deeply rooted in oral transmission and improvisation. ChatGPT, a generative language model developed by OpenAI, has become increasingly influential in musical workflows. It can suggest lyrics, generate thematic variations, and provide structural outlines for compositions (OpenAI). While in Western contexts AI-generated music is primarily evaluated for novelty and efficiency, in Indian music the questions are layered with concerns about authenticity, cultural representation, and fidelity to traditional grammar (Moore 209–223). This study evaluates how ChatGPT is perceived as a creative

partner, a disruptive force, and a potential pedagogical tool in shaping Indian music.

Research Problem

The central research problem addressed in this study is the tension between creativity, authenticity, and usefulness in ChatGPT's role in Indian music. While ChatGPT has demonstrated its ability to generate new lyrics, suggest ragas, and streamline compositional workflows, there is uncertainty about whether these contributions align with the cultural and aesthetic requirements of Indian music (Srivastava 88–110). Specifically, the study investigates how different stakeholders : musicians, producers, and listeners perceive ChatGPT's integration into Indian musical traditions.

Objectives of the Study

- To analyze audience perceptions of ChatGPT in enhancing creativity, maintaining authenticity, and supporting usefulness in Indian music.
- To compare the views of musicians, producers, and listeners on the role of ChatGPT.

- To evaluate the significance of ChatGPT in shaping the cultural trajectory of Indian music in contemporary society.
- To contribute to the discourse on artificial intelligence as a cultural and creative collaborator rather than merely a technological tool.

Hypotheses

H1 (Creativity Hypothesis): There is a significant difference between musicians, producers, and listeners in how they perceive ChatGPT's role in enhancing creativity in Indian music.

H2 (Authenticity Hypothesis): There is a significant difference between musicians, producers, and listeners in their rating of ChatGPT's usefulness in shaping Indian music.

The null hypotheses (H0) propose no significant differences among the groups in these areas.

Relevance of the Study

This study is academically and socially relevant. For the academic community, it contributes to computational creativity and ethnomusicology by situating AI within Indian musical traditions (Boden). For society, it highlights the interaction between technology and cultural heritage (Katz). ChatGPT may democratize access to music creation and assist in education, but it may also risk diluting traditions if not carefully contextualized. The study is therefore important for musicians, cultural policymakers, educators, and audiences alike.

Research Methodology

This research employs a mixed-method approach, integrating quantitative and qualitative methods:

Quantitative Component: A survey of 100 respondents—musicians, producers, and listeners—collected perceptions on creativity, authenticity, and usefulness. Data were analyzed using ANOVA to examine group differences (Patil et al. 692).

Qualitative Component: Open-ended responses were coded thematically to capture nuanced perspectives on ChatGPT's role in Indian music. This ensured that cultural and emotional dimensions, often missed in quantitative surveys, were adequately represented.

Discussion

The findings suggest a dual perception of ChatGPT in Indian music. On one hand, it is valued for its practical utility and creative stimulation, with producers and some musicians acknowledging its role in breaking creative blocks. On the other hand, questions of authenticity and originality dominate the discourse, especially among traditionalists. The significance lies in recognizing ChatGPT as not merely a technological instrument but a sociocultural actor. Its role extends into debates about authorship, pedagogy, and cultural representation. As the data reveal, there is cautious optimism about its future potential, provided it is refined with culturally specific training and integrated responsibly.

Results:

Quantitative Results: Audience Response Summary

Table 1. Audience Response Summary

(N=100)

Finding	% of Respondents	No. of Respondents out of 100
ChatGPT helps generate creative musical ideas.		
Age group : 16-24 years	68%	68
ChatGPT outputs feel culturally authentic to Indian traditions.		



Age group : 20 - 30 years	42%	42
ChatGPT is useful for composition/production		
Age group : 20 - 30 years	75%	75
ChatGPT saves time and effort in the music making process.		
Generation : Gen Z group	70%	70
ChatGPT could replace some traditional processes.		
Age group : 30 - 40 years	28%	28
Respondents are concerned about the loss of originality.		
Age group: 30 - 50 years	55%	55
Would consider integrating ChatGPT into their creative workflow.		
Age group: 18 - 40 years	60%	60

Qualitative Results: Thematic Analysis

Table 2. Qualitative Data Analysis

Theme	Sample Responses (Open-Ended)	Interpretation
Creativity Boost	“ It gives ideas I wouldn’t think of.” “Helps break creative blocks.”	AI is perceived as a co-creator that enhances ideation and novelty.
Cultural authenticity doubts (Dr. Amrapali, Asst. Professor vocal dept, Dr. Manisha Violin etc)	“The raga suggestions don’t always match traditional grammar.” “Feels westernized.”	Musicians in particular are skeptical about ChatGPT’s cultural fidelity.
Practical usefulness (Freelancers like Jatin, Shehnaaz etc).	“Quick for rough drafts of lyrics.” “Saves me hours of brainstorming.”	Procedures and technologies see strong practical advantages.
Concerns about originality (Srijan Dhir, Research Scholar, Mathura, Jagdev Netam, Asst. professor, Khairagarh, etc)	“If everyone uses ChatGPT, songs will sound the same.” “It reduces the human touch.”	Highlights anxiety over homogenization and loss of individuality.
Future potential (Bands, upcoming classical learners and instrumentalists)	“Could be amazing if trained on more Indian classical data. “Useful but needs refinement.”	Optimism for improvement and integration with tradition.

ANOVA Results

Table 3. ANOVA Summary

Variation	Source of variation	F-value	p-value	Interpration
Creativity	Between Groups	4.21	0.017	Significance difference among groups.
Authenticity	Between Groups	6.08	0.004	Strong group indifference, musicians were more critical.
Usefulness	Between Groups	5.33	0.009	Significant; producers rate usefulness higher.



Interpretation of Hypothesis

H1 (Creativity): Supported. Producers and some listeners find ChatGPT more creatively stimulating than musicians.

H2 (Authenticity): Supported. Musicians rated authenticity significantly lower than producers and listeners.

H3 (Usefulness): Supported. Producers rated usefulness higher than musicians and listeners.

Conclusion

The study reveals that ChatGPT is widely recognized as a creative stimulant and efficiency tool, yet its adoption in Indian music is restrained by concerns of cultural authenticity and originality. Producers embrace it as a collaborator, while musicians, especially those rooted in classical traditions, express skepticism about its ability to capture the intricacies of ragas and cultural depth.

ChatGPT proves to be an efficient and innovative tool for simplifying tasks in the field of Indian music, its inability to convey or interpret the emotional depth that forms the very foundation of all artistic expression. Art, and particularly music, thrives on evoking emotions and creating human connections and this dimension remains beyond the current capacity of AI-based systems. Thus while ChatGPT can serve as a powerful aid, it cannot operate as an independent entity in the realm of music. However, when employed under human supervision, it has the potential to revolutionize workflows, provide fingertip accessibility to knowledge, and enhance both teaching and research processes. In this way, ChatGPT does not replace the human element of human creativity but complements it, demonstrating that technology, when guided by human insight, can create meaningful advancements in the preservation, dissemination and study of Indian Music.

Note:- For verifying the authenticity and experimentation, the exact same prompts were given to ChatGPT from different sources and devices. And the output received was different everytime which leads to the conclusion that if all musicians use ChatGPT for creative writing or content creation, the theme structure may align with each other but the overall output still remains significantly different from each other. And also, it completely depends upon the user command given to ChatGPT that how the output can be manipulated and that ChatGPT still requires a human supervision and some prior knowledge of music to understand the received output and differentiate between authenticity and plagiarism.

If used properly and ethically, technology and human creativity can go hand in hand. ChatGPT proves to be a great tool for creative block that many artists face in their art especially music and hence can be used as a guide when creating art.

Future Research Directions

Building on the findings of this study, several avenues emerge for future inquiry into the intersection of ChatGPT and Indian music:

Cultural Data Integration

Future research should investigate how ChatGPT can be fine-tuned with Indian classical, folk, and regional musical datasets. Incorporating raga-based compositions, tala structures, and indigenous lyrics could improve cultural fidelity and reduce Western bias.

A comparative study between general GPT outputs and fine-tuned Indian music models could provide insights into authenticity gaps.

User-Centered Design Studies

More empirical work is needed to examine how different groups (musicians, producers, listeners, educators) engage with ChatGPT in real-world music-making contexts.

Longitudinal studies could track how sustained use of ChatGPT influences creativity, skill development, and artistic satisfaction.

Quantitative Validation

The present study used exploratory ANOVA methods; future research could employ larger samples, multi-city surveys, and cross-genre comparisons for stronger statistical validity.

Experimental designs (e.g., musicians creating with vs. without ChatGPT) could reveal measurable effects on output quality, creativity ratings, and emotional response.

Ethics and Authorship

Scholars should interrogate the ethical implications of AI-generated music: who owns the rights to an AI-assisted raga composition? How should credit be attributed between human and machine collaborators?

Research could also examine how audiences perceive authorship and originality when they know AI has contributed to the composition.



Pedagogical Applications

ChatGPT's role in music education is an underexplored frontier. Studies could test whether AI can assist beginners in learning ragas, rhythm patterns, or lyrical composition.

Comparative experiments could measure student engagement and retention when traditional instruction is supplemented with AI tools.

Interdisciplinary Fusion

Future inquiries may explore fusion genres where ChatGPT bridges Indian music with global styles (jazz, EDM, hip-hop). This could reveal whether AI serves as a cultural mediator or risks further homogenization.

Psychological and Social Impact

Investigating the psychological experience of musicians working with AI could shed light on issues of confidence, self-expression, and identity.

Social research could also examine whether AI widens or narrows access to creative opportunities across socioeconomic groups in India.

In summary, future research must go beyond technological performance and engage with cultural depth, human agency, and ethical responsibility.

Future research should therefore focus on integrating affective computing and emotion-recognition models with music-oriented AI systems to better capture the expressive qualities of Indian Classical traditions. Exploring interdisciplinary approaches that combine musicology, psychology and artificial intelligence may help bridge the gap between technical efficiency and emotional resonance. Such advancements could lead to more nuanced and human-centered applications, ultimately allowing AI to engage not only with the structural but also the emotional dimensions of music.

ChatGPT is not merely a technical instrument but a sociocultural actor in the evolving narrative of Indian music. Future research should focus on integrating affective computing and emotion-recognition models with music-oriented AI systems (Wang et al.; Patil et al. 692; Livingstone and Russo 283–296).

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