



Handshake Of Artificial Intelligence With Folklore: Preservation And Integration In Teaching – Learning

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Abstract

National Education Policy (NEP) 2020 places a strong emphasis on Indian Knowledge System (IKS), integrating Indian culture and traditions within the educational system. This study examines the transformative function of Artificial Intelligence (AI) in accomplishing this goal of preserving, including and integrating Folklore in teaching-learning process. The study begins by discussing the role folklore plays in education, serving as a medium to impart cultural values, ethical principles, and historical knowledge. This paper explores the evolving role of AI in education, focusing on its potential to provide enriched teaching - learning experiences by integrating folklore. The paper also addresses how AI can contribute in the preservation of folklore, utilizing advanced tools for digitization, documentation, and global dissemination. Furthermore, the paper investigates the practical applications of AI for teachers for using folklore in the teaching-learning process. This includes developing folklore-based lesson plans, and designing interactive activities that engage students in exploring their cultural roots. The study also emphasizes AI's capacity for listing and categorizing folklore facilitates educators in identifying stories and traditions suitable to be integrated in teaching learning process.

Key Words: NEP 2020, Artificial Intelligence (AI), Folklore, Cultural Preservation, Teaching-Learning, Curriculum Integration, Digital Documentation, Cultural Roots.

Introduction

The rapid advancement of Artificial Intelligence (AI) has created new possibilities for the preservation, and integration of cultural heritage into education. UNESCO's 11th Sustainable Development Goal (SDG 11, Target 11.4) emphasizes the importance of developing sustainable cities and communities, with a particular focus on preserving both tangible and intangible cultural assets worldwide.

The Indigenous Knowledge (IK), which reflects the nation's rich tradition and culture of various communities, is a large repository of knowledge that spans science, the arts, literature, and oral traditions. NCFSE (2023) emphasized that education should be deeply anchored with the Indian and local context in terms of culture, traditions, heritage and customs to make learning more interesting and meaningful. (National council framework for school education [NCFSE], 2023). National Education Policy (2020) emphasizes incorporating traditional Indian knowledge, particularly tribal and local knowledge, into the curriculum encompassing humanities, sciences, arts, crafts, and sports.

IK, among its various elements, folklore are oral traditions that are passed on from one generation to other and it comprises of folktales, folksongs, folkdance, local art and craft etc. (Bascom, 1965). Incorporating folklore which are contextually relevant and interesting content in to the educational system may help students develop a stronger sense of cultural identity, develop values and enrich the teaching-learning process (Alakrash et al., 2021). However, less focus has been given on the preservation and dissemination of folklore of diverse cultures. This requires novel approaches to protect and preserve this invaluable legacy. Handshake with AI facilitating the easy preservation of the Indian culture and traditions through the digitalization, documenting, and systematic archiving of oral traditions, songs, and stories. Artificial intelligence (AI) offers groundbreaking solutions for the conservation and transmission of folklore. In addition to preservation, AI can support teachers to identify and collect Folklore such as folktales, folksongs, folkdance, proverbs, riddles, local art and craft, indigenous games. This can aid teachers to design interactive teaching material which will make teaching learning process more inclusive, engaging and culturally relevant in a holistic manner. This article addresses the critical importance of the infusion of folklore in to education, and how AI can contribute to its use and maintenance and be successfully implemented by teachers in to the school environment. It can serve as a catalyst for its use and preservation, enabling educators to successfully incorporate cultural heritage into the classroom.

Folklore as an enhancer of Education

Age appropriate, child friendly folklores can foster children's moral development, social skills and language; they are also important for children cultural identity (Sarwar, 2023). Not only development of values and preservation of culture, folklores have the potential to develop students' competencies such as environmental care, creative thinking, critical thinking and problem solving. Furthermore, they play a vital role in character education because they contain noble character values such as mutual cooperation, brotherhood, responsibility, obedience, gender equality, social values and communication values (Karmadi, 2023). Research studies emphasize the significance of folklore in promoting cultural awareness and appreciation among students. Utilization of indigenous and folkgame songs in early childhood education encourages children to interact with their environment and facilitates concept learning (Obeng et al., 2022). Revitalizing forgotten folktales can motivate children to engage with their cultural heritage and appreciate their environment (Yektingtyas & Silalahi, 2020).

AI for Preserving and Promoting Folklore and Cultural Heritage

Sidney L. Pressey pioneered the application of artificial intelligence (AI) in education, introducing devices that supplied pupils with fast feedback while relieving teachers' burdens (Pressey, 1950; Holmes et al., 2019). B.F. Skinner refined this notion in 1958 with his "teaching machines," which allowed for programmed instruction via a system in which students answered questions and received rapid feedback (Skinner, 1958). These early inventions paved the way for AI in educational technology. AI benefits both students and instructors, providing tailored learning experiences, talent identification, creativity development, and reduced teacher workloads (Gocen & Aydemir, 2020, p. 14). The main function of AI approaches in Language Technology (LT) is to create a variety of tools and systems that handle data with a more secure and accurate interface in several fields, including optical character recognition (image processing), text processing, and voice processing to preserve all types of data and information in the form of image, text and sound signals (Das et al., 2022).

Natural language processing (NLP), which is utilized for translation and analysis of folklore texts, is optimized by AI technologies in the preservation of culture. NLP powered machine translation helps to preserve and make indigenous languages accessible by translating texts in to widely spoken languages. It is used to restore and reconstruct damaged or incomplete folkloric texts. Traditional performances and rites have been analyzed using computer vision. Chatbots and virtual assistants assist in providing personalized experiences and answers to all questions. Furthermore, it has been shown that this facilitates machine translation, offers sentiment analysis, and identifies important themes and motifs. The practice

of effectively preserving the interests of the populace has benefited from this approach. (Kaswan et al., 2021, p. 45)

Development of Digital Writing Tool

Large speaker groups can facilitate and encourage the use of Indigenous languages by their communities, particularly among youth and young adults. Furthermore, as teens and young people are frequently the biggest users of digital tools, making it simple to write in Indigenous languages in these media is probably essential given the growing prevalence of digital tool and internet access. The codesign method, which involves prototyping, assembling, and testing various component tools with Indigenous speakers in developing Some of the tools that have been created for writing assistants in communities have been created through a co-design process in which various component tools are designed, assembled, and tested with Indigenous speakers in various task contexts (Pinhanez et al., 2024).

AI based tools can help in preservation and dissemination of folklore like:

New specific AI based applications can developed for the specific purpose of this noble cause. Many AI tools are developed which may also be diverted for the preservation and integration of folklore. Some of the tools and how it be used for this purpose is explained below:

Dictionary of Words: It can give users access to definitions, synonyms, and translations of words from folklore in indigenous languages. It can also help scholars, teachers, and students comprehend and analyze folklore texts while maintaining the writings' linguistic and cultural context. It can break down linguistic boundaries to make folklore accessible to all.

Completion of Words: it can help with the transcription of fragmentary or incomplete folklore texts, particularly oral traditions with ambiguous or insufficient documentation. Helps teachers and language learners use indigenous terminology in folklore correctly.

Completion of the Next Word: Predicts likely continuations to help rebuild incomplete folklore stories, melodies, or proverbs.

The Spell Checker: It can rectify spelling errors, especially in texts transcribed from oral sources, ensuring correct documentation of folklore. It ensures linguistic accuracy, which raises the caliber of instructional materials that use folklore.

Interpreter: It preserves cultural relevance while making folklore accessible to a larger audience by translating it between indigenous and globally dominant languages makes it possible to study folklore across languages, encouraging cooperation between academics and communities. Preserves linguistic diversity while guaranteeing accessibility by translating folklore into many orthographies of the same language.

Integrating Folklore into Education through Artificial Intelligence: Enhancing planning, transaction, and Evaluation Stages

Preservation and promotion of India's cultural heritage is crucial for India's identity and economic growth. The promotion of Indian arts and culture is vital not only for the country but also for every individual. Developing cultural awareness and expression in youngsters fosters a sense of identity, belonging, and appreciation for diverse cultures and identities. Building a deep understanding of one's own cultural history, arts, languages, and traditions can help youngsters develop a healthy identity and self-esteem (NEP,2020).

The NCFSE 2023 places a high priority on integrating Indigenous Knowledge Systems (IKS) into all educational phases to ensure that students continue to be connected to their cultural heritage while developing their academic skills. IKS at the Foundational Stage is taught through age-appropriate folktales, fables, and motivational stories from Indian history. Including traditional Indian music, art, and sports encourages innovation and cultural sensitivity. At the Preparatory Stage, IKS is strengthened through the study of basic art forms like rangoli, clay work, puppetry, and folk music to help students connect with their local culture and traditions. Students in the Middle Stage study art traditions from their state and neighboring areas, looking at regional styles and their social settings. The Secondary Stage involves the blending of IKS with creative traditions from across India. (National Curriculum Framework for School Education [NCFSE], 2023)

Resource Support and Interactive based Folklore Learning by AI

The revolutionary potential of Generative Artificial intelligence in education is emphasized by UNESCO, which highlights how it may improve teaching and learning procedures. Through collaboratively creating Lesson plans, curriculum, and assessments that are suited to particular learning goals. These resource support in the development of instructional strategies and content ideas, enhancing the creativity and accessibility of education. (Holmes & Miao, 2023). AI techniques have the potential to improve education and make folklore more approachable, engaging and interesting for both educators and learners (Lijuan & Rahman, 2024).

For Teachers:

The capabilities of GenAI can improve a number of teaching and learning strategies, including automated content, feedback, assessment, learning design, and learning regulation. (Giannakos et al., 2024)

Resource Curation and Content Organization: AI can help teachers organize and access a variety of instructional resources (Jagadesh Kumar, 2023). AI can give educators access to enormous archives of folklore, which include artwork, music, and storytelling. Teachers can design culturally rich lesson plans by selecting resources that align with age, topics, or learning objectives.

Personalized Learning: Chatbots or virtual assistants driven by AI can interact with instructors to exchange and compile school tales. (TeachFlow.ai, 2023)

AI-generated Multimedia Presentations, such as animated folk stories, interactive tests, and virtual storytelling platforms, can be used as interactive teaching aids to assist teachers introduce folklore to their students in fresh and engaging ways. (TeachFlow.ai, 2023) **Assessment and comments:** AI systems are able to evaluate student work, including artwork and folklore-based creative expressions, and offer immediate comments on originality and cultural sensitivity. This makes it possible for educators to evaluate pupils' knowledge of IKS and folklore more accurately.

For Learners:

The advent of AI chatbots has improved storytelling techniques and assisted in offering a more individualized experience, as a result, students experiences have grown, and their willingness to participate has also been observed to increase. (Madhukullya et al., 2024)

Interactive Learning: AI provides customized, interactive learning experiences, allowing for individualized learning paths via apps that adapt to users' skill levels (Nanduri, 2024). Students can immerse themselves in folktales, artwork, and customs from various locales through AI's ability to provide folklore in interactive formats like storytelling applications, Virtual Reality (VR), or Augmented Reality (AR).

Creative Expression: While providing ideas for innovation based on old styles, AI-powered programs might inspire students to reproduce folk art, crafts, or music. Students could become more creative and establish a stronger bond with their culture.

Cultural Exploration: students can learn about the diversity of Indian customs and the regional differences in folk art, music, and dance by using AI technologies that can recommend folklore from different places (Madhukullya et al., 2024).

Conclusion

The handshake of Artificial Intelligence in folklore preservation, inclusion, and integration in teaching-learning can come with enormous potential for enhancing education and preserving our rich cultural heritage. Both teachers and students can benefit from AI powered folklore repositories like quick access to local art and craft, folktales, folksongs and folkdance. Folklore can be easily used for interactive storytelling with the help of AI to engage students and create a culturally appropriate environment. The diverse personalized experiences and needs of students can be accommodated into the teaching learning with the help of AI tools. AI can ensure that folklore preservation and its significance is maintained into the curriculum and boost students' cultural identity and understanding.

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