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VAIDIKA: AI Story Telling Platform

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Abstract

The preservation and dissemination of ancient spiritual and cultural knowledge in the digital age demand innovative technological frameworks that honor the diversity and depth of global traditions. This project presents VAIdika, an Artificial Intelligence-powered story-telling platform designed to synthesize and narrate stories from Indian epics, Puranas, and philosophical texts, alongside narratives from various religions across multiple languages and audience profiles. By integrating Natural Language Processing (NLP), neural Text-to Speech (TTS), and AI-generated video synthesis, Vaidika offers adaptive, voice-enabled story-telling experiences excluding modern colloquial (Gen-Z) dialects to preserve reverence, clarity, and authenticity. These are then vocalized and visually rendered using multimodal AI pipelines, incorporating Google's Video Generation APIs and high fidelity TTS engines such as ElevenLabs. A multilingual, web-based interface enables user interaction, voice tone customization, and regional language output. The platform's age-specific tone adaptation and religious context modeling allow it to respectfully and effectively communicate across faiths and cultures. This work highlights the transformative potential of culturally sensitive generative AI in interfaith education, spiritual story-telling, and digital heritage preservation. Styled with emphasis on "AI" within Vaidika, the platform symbolizes a modern conduit through which the ancient, the divine, and the philosophical are preserved, personalized, and propagated for future generations.

Keywords: Artificial Intelligence; Natural Language Processing; Multimodal AI; Text-to-Speech Synthesis; Cultural Storytelling Systems; Digital Knowledge Preservation

1. Introduction

Storytelling has historically played a significant role in transferring knowledge, preserving cultural traditions, and providing entertainment. With the advancement of digital technology and artificial intelligence, storytelling platforms are evolving beyond traditional static content to generate dynamic narratives. Artificial Intelligence and Natural Language Processing (NLP) techniques allow computers to generate coherent stories automatically by analyzing language patterns and narrative structures.These

technologies make it possible to develop systems that adapt storytelling content according to user preferences and audience types.

This research proposes **Vaidika**, an AI-driven storytelling platform capable of generating personalized stories and presenting them through avatar narration and audio output. The system aims to improve storytelling engagement and support educational learning through intelligent narrative generation.

Table 1: System Modules Description

Module	Description
UI Components	Allows users to interact with the system
Frontend Module	Sends requests to backend server
Backend Server	Handles processing and APIs
AI Engine	Generates storytelling content
Voice Synthesis	Converts text to speech
Database	Stores stories and user preferences

1. Literature Survey

Title: Automated Story Generation using Artificial Intelligence Author: R. Pérez y Pérez and M. Sharples

Year: 2001

Description:

This research focuses on the development of automated storytelling systems using Artificial Intelligence. The system generates narratives by analyzing relationships between story events and characters. It also models emotional interactions to improve narrative creativity. The study demonstrates how AI can be used to generate structured and meaningful stories automatically. However, the system mainly focuses on narrative creativity and does not provide adaptive storytelling for different audiences.

Title: Learning to Tell Tales: A Data-Driven Approach to Story Generation
Author: D. McIntyre and M. Lapata

Year: 2010

Description:

This work presents a data-driven approach to automatic story generation using machine learning techniques. The system learns narrative structures from large text datasets and generates stories based on learned patterns. The research highlights the potential of Natural Language Processing in generating coherent narratives. However, the approach lacks personalization and does not adapt storytelling style according to audience requirements.

Title: Narrative Planning: Balancing Plot and Character
Author: M. O. Riedl and R. M. Young

Year: 2010

Description:

This research introduces narrative planning techniques for automated storytelling systems. The proposed model balances character goals and plot development to generate coherent storylines. The system ensures logical event progression and improves story consistency. Although the model improves narrative structure, it does not address adaptive storytelling based on audience characteristics.

Title: Event Representations for Automated Story Generation with Deep Neural Networks
Author: L. Martin, P. Ammanabrolu, X. Wang, W. Hancock, and M. Riedl

Year: 2018

Description:

This study explores the use of deep neural networks for automated story generation. The model learns event representations from large text corpora and generates stories by predicting event sequences. The approach improves narrative coherence and diversity in generated stories. However, the system primarily focuses on event prediction and lacks audience-adaptive storytelling features.

Title: Language Models are Few-Shot Learners
Author: T. Brown et al.

Year: 2020

Description:

This research introduces large language models capable of generating high-quality natural language text. These models are trained on massive datasets and can generate coherent stories based on prompts. The study demonstrates the effectiveness of deep learning for automated content generation. However, the model does not specifically focus on educational storytelling or cultural narrative adaptation.

1. Proposed System

- The proposed system introduces an AI-driven storytelling platform that dynamically generates narratives based on user inputs and storytelling themes. The platform allows users to select a theme and audience category, after which the system generates a story using AI-based language models.
- The generated story is then processed by an adaptive engine that modifies the narrative according to the audience type. Stories for children use simpler language and moral-focused content, while stories for adults contain more detailed narratives.
- The system also integrates avatar narration and audio generation to enhance storytelling interaction and user engagement.

1. System Architecture

The architecture of the Vaidika AI Story Narrator is designed using a modular structure that integrates user interaction, AI-based story generation, backend processing, and data storage. The system consists of several interconnected components including the UI components, frontend module, backend server, AI engine, and database layer. These modules work together to generate stories and produce narration output.

1.1 User Interface Layer

The user interface layer represents the interaction point between the user and the storytelling system. Users interact with the system through UI components such as the **User Interface, Story Selection module, Language Selection module, and User Predictor module**.Through this interface, users can select the story type, choose the preferred language, and provide inputs required for generating personalized storytelling content. The UI components communicate with the frontend module to process user inputs and display the generated results.

1.2 Frontend Module

The frontend module acts as the bridge between the user interface and the backend system. It receives user inputs from the interface and sends requests to the backend server for processing. The frontend module manages the communication between UI components and backend services using API calls.This layer ensures smooth interaction between users and the system by displaying generated stories, narration outputs, and avatar-based storytelling results.

1.3 Backend Server

The backend server handles the core processing of the system. It manages API communication, request handling, and system logic. The backend server processes incoming requests from the frontend and coordinates with the AI engine and database to generate storytelling content.The backend server also performs functions such as request handling, response generation, and module integration to ensure efficient data flow within the system.

1.4 AI Engine

The AI engine is responsible for generating storytelling content using Artificial Intelligence and Natural Language Processing techniques. It processes the user input received from the backend server and generates meaningful story outputs.The AI engine uses **Natural Language Processing (NLP) algorithms** to analyze text patterns and generate narratives. The generated output is then sent to the **voice synthesis module** for narration generation.

1.5 Voice Generation Module

The voice generation module converts the generated story text into audio narration using **voice synthesis technology**. This module produces audio outputs that enhance the storytelling experience by allowing users to listen to the generated stories.

1.6 Voice Generation Module

The database layer stores important system data such as **stories, user preferences, and multilingual data**. The database ensures efficient storage and retrieval of information required for the storytelling process.

The backend server communicates with the database to retrieve stored data and update generated storytelling content.

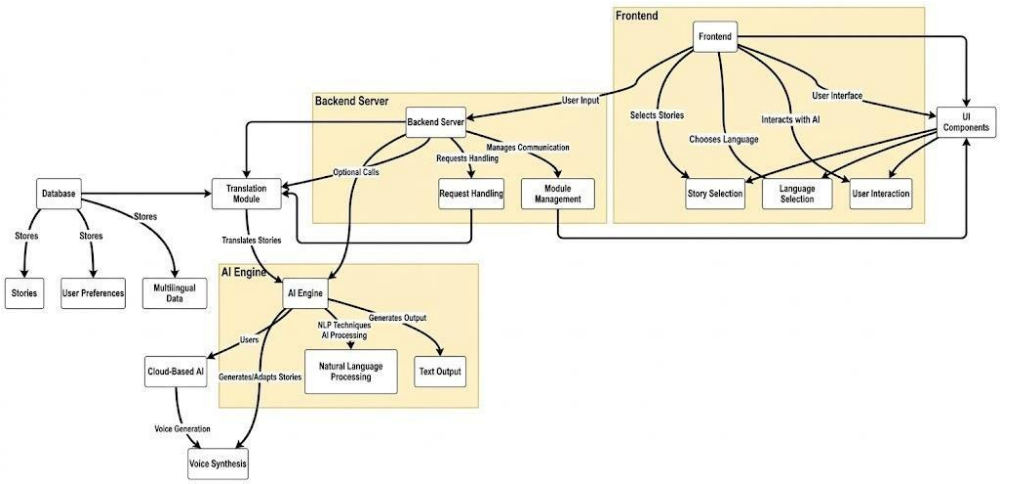

Figure : System Architecture of Vaidika

2. Implementation

The Vaidika storytelling platform is implemented using **Node.js, Express.js, and JavaScript**. The backend server handles requests for story generation and avatar narration. Natural Language Processing techniques are used to generate narratives based on user-selected themes.The system also integrates avatar video generation and text-to-speech technologies to convert generated stories into visual and audio narration formats.The implementation includes modules for story generation, narration generation, and database storage, which work together to provide interactive storytelling experiences.

3. Results and Discussion

The developed system successfully generates stories based on user-selected themes and audience categories. The platform also produces avatar narration videos and audio outputs, providing an interactive storytelling experience.

The results demonstrate that AI-driven storytelling systems can improve user engagement and provide personalized narrative experiences. The system performs efficiently in generating stories and delivering narration outputs.

4. Conclusion

This research presented Vaidika, an AI-driven adaptive storytelling platform capable of generating

personalized narratives using Natural Language Processing techniques. The system integrates story generation, adaptive storytelling, and avatar narration to enhance digital storytelling experiences.

The results show that artificial intelligence can significantly improve storytelling engagement and support educational applications through automated narrative generation.

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Declaration of Conflicting Interests

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