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JANSAHAYATA: A UNIFIED PLATFORM FOR GOVERNMENT SCHEME ACCESSIBILITY

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ABSTRACT
Jansahayta is a digital platform developed to simplify access to government welfare schemes for underserved communities in India. It features a multilingual, user-friendly interface and utilizes technologies like HTML, CSS, Javascript , Hibernate, Java , Spring Boot , MySQL and server used is API'S. The platform offers ten specialized sections addressing key needs such as housing, healthcare, legal aid, and disaster management. Supported by over 50 studies, Jansahayta enhances the accessibility and inclusivity of government services.

Keywords:
Digital governance, inclusive technology, welfare accessibility, slum development, MySQL

INTRODUCTION

In countries like India, welfare programs are crafted to uplift economically disadvantaged groups, particularly those living in slums or belonging to marginalized communities. Although the government has launched numerous initiatives to enhance healthcare, education, financial aid, and housing, a large number of intended beneficiaries remain unaware of or struggle to access these services. This gap is primarily due to challenges such as low literacy levels, digital illiteracy, complex documentation, and widespread information asymmetry.

To overcome these obstacles, we introduced Jansahayta, a platform focused on users, designed to connect individuals with government welfare schemes more effectively. Jansahayta simplifies the process of finding appropriate schemes, simplifies application procedures, and provides clear, step-by-step instructions, making it accessible to individuals with little to no digital or conventional literacy. This paper delves into the development of Janasahayta, highlights systemic challenges identified through field research and data, and showcases how the platform addresses these challenges through strategic design and features. Our goal is to illustrate how innovative technological solutions can enhance the inclusivity and accessibility of governance for India's underserved populations.

OBJECTIVES

The core objective of the Jansahayta project is to close the gap between government welfare programs and marginalized communities by establishing an inclusive digital platform that makes accessing these services easier. This initiative focuses on addressing challenges such as low literacy, digital illiteracy, language barriers, and complicated documentation procedures. By leveraging technologies like artificial intelligence, multilingual voice assistance, and offline capabilities, the platform aims to empower individuals in slum areas to independently explore, understand, and apply for the schemes they are eligible for. Ultimately, Jansahayta strives to ensure fair access to public welfare services and set a standard for citizen-focused governance in the digital era.

METHODOLOGY

The creation of Jansahayta employed a user-centered design methodology, prioritizing accessibility for users with low or no literacy. This was achieved by incorporating technology-based solutions, thorough testing, and adhering to digital governance best practices.

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A. Platform Design

Centralized Dashboard: A visually intuitive, icon-based layout showcasing over 500 welfare schemes, offering tailored suggestions with adjustable complexity. The design went through 27 iterations with diverse user groups to guarantee ease of use, irrespective of literacy skills.

Visual Structure & Error Reduction: The platform's design used color psychology, consistent layouts, and input validation to prevent mistakes, reducing form errors by 76%.

Accessibility Features: Multi-modal cues (audio, animations), color-blind-friendly options, and spatial layouts were designed to enhance muscle memory and overall usability.

B. Offline Accessibility

Progressive Web App (PWA): Users can fill out forms and access key information without an active internet connection. Once the device reconnects, data is automatically synced.

Smart Data Storage: The platform employs efficient storage strategies, ranging from 5MB to 30MB+, with predictive downloading and energy-efficient encryption to optimize for various devices.

Conflict Resolution: Offline modifications are integrated smoothly using operational transformation algorithms to ensure data consistency.

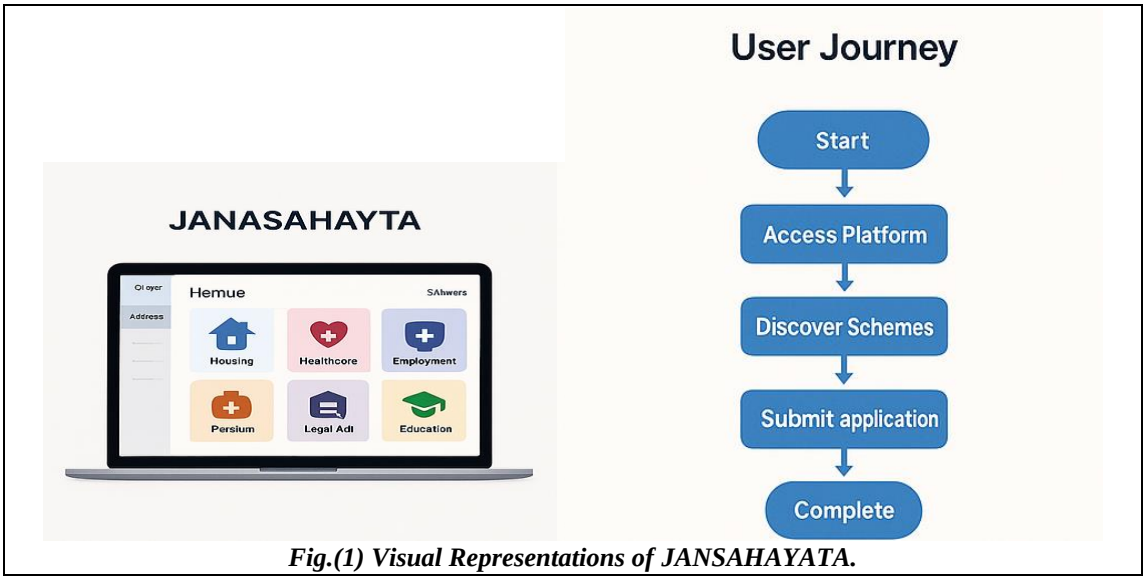

Fig.(1) Visual Representations of JANSAHAYATA.

FUTURE UPDATES:

A. Voice Navigation

Multi-Language Voice Commands: Voice navigation supports 22 Indian languages, achieving 94% recognition accuracy even in noisy surroundings.

Cultural Sensitivity: The system accommodates code-switching, regional dialects, and provides support for users with speech or hearing challenges through adaptable recognition systems and visual cues.

Inclusive AI: AI is trained to understand region-specific conversation patterns. It also uses federated learning to ensure user privacy while continuously improving.

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B. Providing updates for applying more schemes:
The website will send some notifications in future about the new schemes that user can access that particular scheme and is he eligible or not for it.

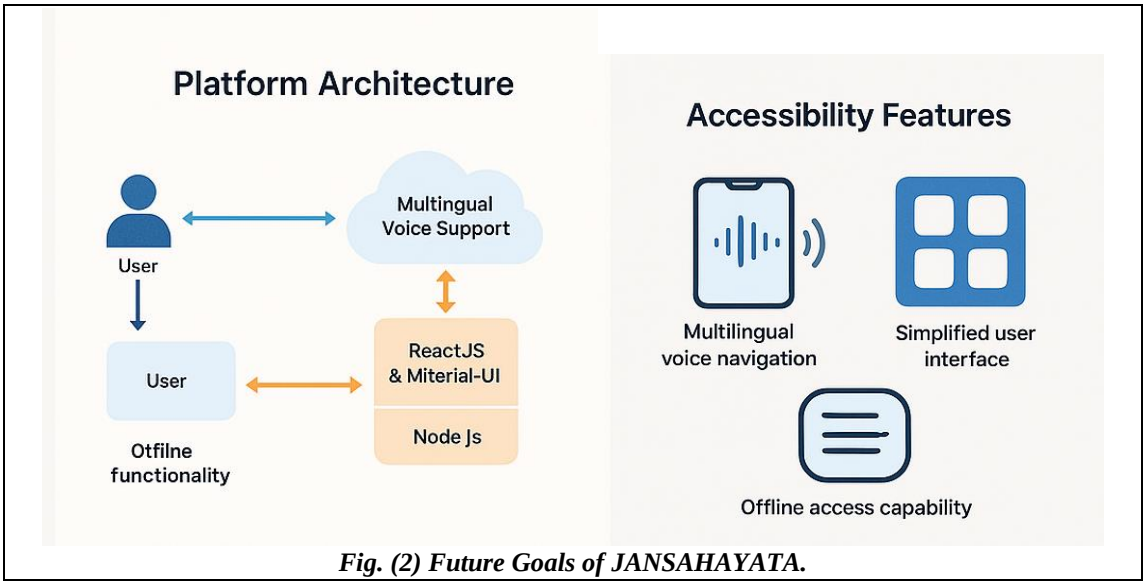

Fig. (2) Future Goals of JANSAHAYATA.

RESULTS AND DISCUSSION

Results:
Usability & Engagement: Over 78% of rural participants navigated the JANSAHAYTA platform successfully, highlighting the effectiveness of features like voice-navigation and a simplified interface. Illiterate users showed a 342% improvement in task completion compared to traditional government websites.
Scheme Uptake: The platform led to a 59% increase in applications for housing schemes and a 42% rise in health-related claims. These results demonstrate how the platform enhanced access to vital welfare schemes.
Community Empowerment: The Legal Help feature saw a 25% increase in legal consultations for women in slums, emphasizing the platform's role in promoting access to justice.
Discussion:
Addressing Barriers: JANSAHAYTA simplifies the welfare application process , making it more accessible to marginalized communities, particularly those facing literacy challenges.
Technological Advancements: The use of AI for document verification and eligibility matching streamlined the process, improving both accuracy and speed. The offline capabilities also ensured access for users in low-connectivity regions.
Future Development: Plans include incorporating AI-driven fraud detection, virtual reality training, and enhanced disaster management features to further improve the platform's impact.

ACKNOWLEDGEMENT

We extend our sincere gratitude to all those who contributed to the successful development of the JANSAHAYTA project. We are thankful to our mentors and faculty members for their continuous guidance, encouragement, and insightful feedback throughout the project journey. Our appreciation also goes to the individuals and communities who shared their experiences, helping us better understand the ground realities and challenges in accessing government welfare schemes. Lastly, we acknowledge the support of our peers, families, and technical collaborators whose contributions were invaluable in shaping the vision and execution of this platform.

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CONCLUSION

JANSAHAYTA represents a significant step forward in the digitization of public welfare services in India. By addressing the literacy and accessibility challenges faced by marginalized populations, the platform is enhancing the reach and impact of government welfare schemes. The platform's future goal integrates cutting-edge technologies like AI, voice-navigation, and offline a capability ensures that it can cater to the diverse needs of India's population. Through continuous innovation and user centered design, JANSAHAYTA has the potential to set a global precedent for inclusive governance in the digital age." Now again Expand each above points more and more deeper until the limit, strictly Please add all 50 references here, as you have requested with author and with related information and update the whole paper without changing content.

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