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Legal Digital Assistant: Empowering Legal Awareness and KYR Framework Design for India

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Abstract: In India, the foundation of societal harmony and progress is deep-rooted in the principles of law and justice. However, its efficacy relies heavily on the dissipation of legal information and the cultivation of awareness among its populace. Successively, access to Legal literacy in a country as diverse and populous as India presents a pressing challenge due to linguistic variations, geographical disparities, and resource constraints. In recent years, the legal landscape has witnessed a significant transformation with the integration of digital technologies. One notable advancement is the proliferation of digital assistants, which have emerged as versatile tools, enhancing legal information access and awareness. This paper presents a comprehensive review of the functionality and impact of the digital assistant, coupled with a comprehensive Know-Your-Rights (KYR) framework tailored to the needs of Indian citizens. The digital assistant serves as a versatile digital interface accessible through web and mobile platforms and employs natural language processing (NLP) capabilities, and intuitive chatbot functionalities. By harnessing the power of technology and community engagement, the assistant aims to democratize legal awareness, empower citizens to assert their rights and foster a culture of accountability and transparency in India's legal ecosystem.

Keywords: Law and justice, Legal literacy, Digital assistant, Natural Language Processing (NLP), Chatbot, Know-Your-Rights.

I. INTRODUCTION

The advent of emerging technologies has revolutionized various domains, offering innovative solutions to address pressing issues. In the legal sphere, technology plays a crucial role in enhancing legal awareness and facilitating access to justice. However, despite significant advancements, enabling access remains a formidable challenge for a considerable segment of the Indian population, particularly those residing in rural areas and with low literacy rates.

This research paper proposes the development of a digital assistant integrated with a comprehensive Know-Your-Rights (KYR) framework tailored specifically to the Indian context. The primary objective of this digital assistant is to empower individuals with the knowledge and tools necessary to access justice and safeguard their legal rights effectively.

The digital assistant will serve as a user-friendly interface accessible through web and mobile platforms, offering a wealth of legal information and resources in a simplified manner. Leveraging advanced technologies such as natural language processing (NLP) and artificial intelligence (AI), the assistant will be capable of interpreting user queries, providing personalized responses, and offering guidance on legal matters. Furthermore, the assistant will support multilingual communication to accommodate India's linguistic diversity, ensuring inclusivity and accessibility for all users. Integrated within the KYR framework, the digital assistant will complement existing initiatives aimed at promoting legal awareness and empowerment. Through educational campaigns, community outreach programs, and collaboration with legal aid organizations, the assistant will facilitate the dissemination of legal information and resources to underserved populations, including rural communities and marginalized groups.

The proposed digital assistant represents a promising solution to bridge the gap between legal rights enshrined in law and their practical realization. By democratizing access to legal information and empowering individuals with the knowledge they need to navigate the legal system, the assistant has the potential to catalyze positive social change and foster a culture of justice and accountability in India.

II. PROBLEM STATEMENT

Developing a Digital Assistant for Legal Awareness in India entails creating an accessible platform that educates citizens about their rights. This entails designing a comprehensive Know-Your-Rights (KYR) framework, tailored to India's legal landscape. The framework should cover key areas such as civil rights, labor laws, consumer protection, and constitutional provisions. Utilizing user-friendly interfaces and multilingual support, the digital assistant aims to empower individuals with crucial legal knowledge, fostering a more informed and empowered society.

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III. RELATED WORK

This section delves into an examination of prior case studies and existing projects within the realm of digital assistants for legal information and awareness. These include:

A. Case Study 1: NyayGuru

Developed by Brainwave Technologies, NyayGuru stands at the forefront of legal technology in India as an AI-powered chatbot. It leverages a comprehensive database of Indian legal statutes, case laws, and principles to provide users with guidance on a wide array of legal topics, spanning criminal, civil, family, and property law. However, it's crucial to underscore that it is intended as a supplementary resource rather than a substitute for professional legal counsel. As the inaugural legal AI chatbot in India, it endeavors to democratize legal knowledge and empower users with a deeper understanding of their rights and obligations, promoting legal literacy within the populace.

B. Case Study 2: Law Bot Pro

Law Bot Pro, an altruistic endeavor by Rare Labs, an Indian legal tech enterprise, delivers AI-driven tools tailored for the legal fraternity. This AI chatbot, honed on Indian legal statutes, stems from a recognition of the acute need for widespread legal aid. Traditionally, legal assistance has been restricted, leaving many underserved. Since its inception, Law Bot Pro has gained prominence for furnishing free legal guidance to Indian citizens. With a user base exceeding 130,000 as of July 25, 2023, Law Bot Pro exemplifies the demand for such services and underscores the unwavering dedication to meeting this critical societal need.

C. Case Study 3: LawRato

LawRato is a legal tech platform that connects people with experienced lawyers across various legal areas. Users can seek legal advice, consult with lawyers, and find legal help for their specific needs. The platform also offers resources such as legal articles and guides to educate users about their rights and legal procedures.

D. Case Study 3: Vakilsearch

Vakilsearch is an online platform that offers legal services to individuals and businesses in India. It provides services such as company registration, trademark registration, legal documentation, and legal consultation. The platform aims to make legal processes more accessible and affordable for people by offering online solutions.

IV. METHODOLOGY

The methodology comprises several sequential steps:

- A. Identification of Relevant Laws and Regulations: This initial phase involves the compilation and categorization of laws and regulations essential to the lives of Indian citizens. Legal language is simplified to enhance comprehensibility.
- B. Design and Development: Subsequently, a user-friendly website or mobile application with multilingual support is created. Interactive features such as chatbots, utilizing Botpress technology, are integrated to facilitate user engagement.
- C. Integration of KYR Framework: The digital assistant is embedded within the Know Your Rights (KYR) framework, ensuring seamless accessibility to legal information for users.
- D. Training and Testing: The digital assistant undergoes training using datasets containing Indian constitutional laws and rights documents. Its performance is evaluated through rigorous user testing and feedback mechanisms.

This structured approach ensures the comprehensive development and effective deployment of the digital assistant within the KYR framework, ultimately enhancing legal awareness and accessibility for Indian citizens.

V. CONCLUSION

The significant challenge of accessing legal information and awareness in India persists, particularly among rural residents, illiterate individuals, and marginalized groups. This knowledge gap impedes their ability to assert their rights and navigate the legal system effectively. Addressing this gap requires the development of a user-friendly and accessible platform for legal awareness. The proposed solution involves creating a digital assistant embedded with a KYR framework tailored to the Indian context. Leveraging AI technology, this platform would provide conversational and easily understandable legal guidance. Moving forward, it is essential for stakeholders, including government agencies, NGOs, and technology developers, to collaborate closely in the successful development and implementation of this solution. In essence, the convergence of digital technology and legal awareness initiatives holds immense potential to democratize access to justice and uphold the principles of equality, fairness, and accountability in India's legal landscape.

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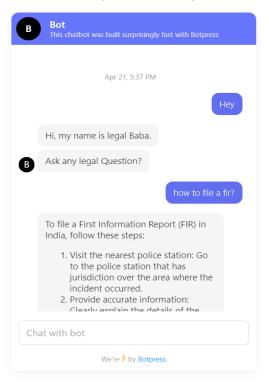


Fig. 1 Project Snapshot

VI. FUTURE SCOPE

The future scope of the Digital Assistant for Legal Awareness and the KYR framework in India is expansive, marked by advancements in technology, accessibility, and community engagement.

- A. Localization and Customization: This entails tailoring the digital assistant and KYR framework to suit the linguistic and cultural diversity prevalent across India, ensuring accessibility and relevance for all users.
- *B.* Community Engagement: Involving grassroots organizations, legal aid clinics, and community leaders in spreading legal awareness fosters a bottom-up approach, reaching underserved populations and enhancing community participation.
- *C.* Policy Advocacy: Advocating for policy reforms and institutional changes that prioritize legal education and awareness acknowledges these as foundational rights, thereby promoting systemic improvements in legal empowerment.
- D. Continuous Improvement: Regularly refining the digital assistant based on user feedback and emerging legal trends ensures its ongoing relevance and effectiveness in addressing the evolving needs of users and the legal landscape.

REFERENCES

- [1]. Laptev, Vasiliy & Fedin, Vladimir. (2020). Legal Awareness in a Digital Society. Russian Law Journal. 8. 138-157. 10.17589/2309-8678-2020- 8-1-138-157.
- Hoque, Md & Ashraf, Mahfuz & Malik, (2014). Creating Legal Awareness through Information Communication Technology for Development (ICT4D) Project in Bangladesh: A Case Study. International Technology Management Review,., ISSN: 2213-7149, Atlantis Press. 97-104. 10.2991/itmr.2014.4.2.4.
 L. Pimentel, A. Reis, M. do Rosário Matos Bernardo, T. Rocha and J. Barroso, "Virtual Assistants in a Digital Governance Environment," 2022 26th
- [3]. L. Pimentel, A. Reis, M. do Rosário Matos Bernardo, T. Rocha and J. Barroso, "Virtual Assistants in a Digital Governance Environment," 2022 26th International Conference on Circuits, Systems, Communications and Computers (CSCC), Crete, Greece, 2022, pp. 182-187, doi: 10.1109/CSCC55931.2022.00039.
- [4]. Queudot, M.; Charton, É.; Meurs, M.-J. Improving Access to Justice with Legal Chatbots. Stats 2020, 3, 356-375. https://doi.org/10.3390/stats3030023
- [5]. Qasem, Rabee & Tantour, Banan & Maree, Mohammed. (2023). Towards the Exploitation of LLM-based Chatbot for Providing Legal Support to Palestinian Cooperatives.
- [6]. Mohammed, Kashim Kyari. (2020). Robot Lawyer: Development of a Virtual Legal Assistant. 10.13140/RG.2.2.11415.80808.
- [7]. Amato, F.; Fonisto, M.; Giacalone, M.; Sansone, C. An Intelligent Conversational Agent for the Legal Domain. Information 2023, 14, 307. https://doi.org/10.3390/info14060307
- [8]. Omar, R., Mangukiya, O., Kalnis, P., and Mansour, E. (2023). Chatgpt versus traditional question answering for knowledge graphs: Current status and future directions towards knowledge graph chatbots. arXiv preprint arXiv:2302.06466.
- [9]. Sil, R. and Roy, A. (2020). A novel approach on argument based legal prediction model using machine learning. In 2020 International Conference on Smart Electronics and Communication (ICOSEC), pages 487–490. IEEE.
- $[10]. \ Becerra, S.\ D.\ (2018). \ The\ rise\ of\ artificial\ intelligence\ in\ the\ legal\ field:\ where\ we\ are\ and\ where\ we\ are\ going.\ J.\ Bus.\ Entrepreneurship\ \&\ L.,\ 11:27.$