

ABSTRACT

The proliferation of digital technologies has transformed various sectors, yet rural areas often remain underserved due to limited access and awareness. Bridging this gap, rural scheme-based chatbots emerge as innovative tools designed to facilitate information dissemination and service delivery related to rural development schemes. This paper presents an exploration into the design, implementation, and impact of such chatbots. At the core of these chatbots is the integration of natural language processing (NLP) techniques tailored to understand and respond to vernacular languages, ensuring inclusivity for users with varying linguistic backgrounds. User-friendly interfaces, often text-based or voice-enabled, make these chatbots accessible even to those with limited digital literacy. A crucial aspect of their functionality lies in real-time updates and notifications regarding scheme applications, eligibility criteria, and benefits. This timely information empowers rural communities to make informed decisions and capitalize on available opportunities. Preliminary studies indicate a positive reception among rural users, highlighting the chatbot's role in demystifying bureaucratic processes and fostering a sense of agency. In conclusion, rural scheme-based chatbots hold immense potential in democratizing access to information and services, catalyzing rural development, and fostering digital inclusivity. Future research should focus on refining their capabilities, addressing challenges, and scaling their adoption across diverse rural landscapes.