DEVELOPING A TEXT-TO-SPEECH E-BOOK READER APPLICATION FOR DISABILITIES USING ANDROID-BASED SERVICES

MUHAMMAD FATHAN RAMADHAN
Informatics Study Program, Faculty of Science and Technology,
University of Technology Yogyakarta
Jl. Ringroad Utara Jombor, Sleman, Yogyakarta
E-mail: muhammad.fathan.ramadhan@gmail.com

ABSTRACT

One of the emerging innovations in digital reading technology is the integration of text-to-speech (TTS) features within e-book reader applications. This study aims to design and develop an Android-based e-book reader application capable of converting written text into spoken audio, thereby facilitating content access for users without the need for manual reading. The application was developed using the Agile software development methodology, enabling iterative improvements based on continuous user feedback. Key features include an intuitive user interface, customizable voice settings such as speed and voice type, and support for multiple e-book formats including ePub, PDF, and TXT. The TTS functionality is specifically implemented to assist individuals with reading difficulties or visual impairments. Initial testing and feedback from early users indicate that the application significantly enhances accessibility and offers a more flexible and comfortable reading experience. Therefore, this text-to-speech e-book reader is expected to serve as an effective solution in promoting digital literacy and inclusivity for diverse user groups.

Keywords: *E-Book Reader, Text-to-Speech, Accessibility, Digital Literacy.*