IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429
Volume 6, Issue 1, January 2026
Impact Factor: 7.67

Digital Bookshelf

Keerthana M[1], Bhavyashree K P[2], Jananya K H[3], Inchara Manjunath Achar[4], Dr. Sanjay Kumar N V[5]
Students, Department of CSE [1-4]
Associate Professor, Department of CSE[5]
Kalpataru Institute of Technology, Tiptur, India

Abstract: *The rapid evolution of digital reading platforms has transformed the way users discover, consume, and interact with books. However, most existing systems focus on isolated aspects such as book discovery, social interaction, or digital commerce, resulting in fragmented user experiences. The Digital Bookshelf project addresses this limitation by proposing a unified, intelligent, and community-driven digital reading platform. Developed using the MERN stack (MongoDB, Express.js, React.js, and Node.js), the system integrates Artificial Intelligence–based book recommendation, community blogging, and secure mock e-commerce functionalities within a single interface.*

The platform employs a hybrid recommendation approach combining content-based filtering, collaborative insights, and heuristic mood-based mapping to deliver personalized book suggestions. Users can explore books, publish written reviews and blogs, engage with the community through likes and comments, and simulate secure book purchases with order tracking. The backend architecture ensures scalability, security, and efficient API handling, while the responsive frontend provides an intuitive user experience across devices.

Performance evaluation demonstrates low API response times, stable scalability for concurrent users, and high usability scores based on structured user feedback. By merging intelligent personalization, social engagement, and commerce, Digital Bookshelf redefines the traditional digital library model and establishes a foundation for future advancements such as sentiment-based recommendations, voice-assisted search, and mobile application support..

Keywords: Digital Library, MERN Stack, Artificial Intelligence, Book Recommendation System, Social Reading Platform, E-Commerce

DOI: 10.48175/IJARSCT-30708