

## ABSTRACT

Historical data regarding Indonesia's transformative era from 1965 to 2000 is dispersed across various sources, posing accessibility difficulties for students, researchers, and educators. This research tackles the challenge of developing a comprehensive Historical Event Knowledge Graph for Indonesian historical events through artificial intelligence and multi-source integration methodologies. The research examines the extraction of information from historical articles into a knowledge graph format, the integration of this information into a cohesive EventKG system, and the facilitation of significant conclusions and insights via natural language interfaces for non-technical users.

The study utilizes a design science methodology that incorporates 19 Wikipedia articles, 13 online news sources, and 97 pages of OCR-processed historical textbooks through automated processing pipelines, employing advanced OCR technology, Large Language Model-based entity extraction via Neo4j's Graph Builder, and Indonesian natural language query interfaces. The results indicate outstanding performance, with OCR attaining a Character Error Rate of 0.38%, a Word Error Rate of 1.70%, and a Named Entity Preservation Rate of 96.34%. The completed knowledge graph comprises 1,313 entities and 8,871 relationships, depicting 313 historical events, with a coverage assessment indicating 90.6% unique specialized content absent from mainstream sources. Correctness validation attains 73.1% accuracy for verifiable content, whereas query performance achieves 80% accuracy for basic historical inquiries but diminishes to 30% for advanced reasoning tasks.

The research definitively establishes that multi-source integration attains markedly superior completeness and accuracy relative to single-source methods, with academic sources exhibiting 95-100% reliability compared to 24.5% for individual web sources. The research formulates essential methodologies for AI-augmented historical education in Indonesia, simultaneously providing validated frameworks for digital humanities in resource-limited languages. The results illustrate that automated methods can preserve and democratize access to specialized cultural heritage knowledge while upholding scholarly accuracy standards, thereby offering scalable solutions for the development of historical education technology in emerging economies.

**Keywords:** Knowledge Graph, Indonesian History, Digital Humanities, Event-Centric Modeling, Natural Language Processing, Historical Information Systems