Feature/Capability	Our Platform	Semantic Scholar	ArXiv	ResearchGate	AMiner
Built-in Role-Based Access Control	Multi-role: Admin, Moderator, Publisher, Reader	-	-	Limited (Researcher only)	-
Full-Stack Ownership (Open Source)	Custom-built Django + MySQL + LLM + Realtime	Closed source	Partial	Closed source	Closed source
Transformer-Based Semantic Search	Elasticsearch + Transformers + OpenSearch reranking	some BERT use, not user-customizable	Basic keyword search	-	AI search, no OpenSearch
Hybrid Recommendation Engine (CF + CB)	With scikit-learn integration	-	-	basic suggestion	research network-based
Citation Graph + NetworkX Analysis	Fully implemented in-app	-	-	-	research graph, but external
Real-Time Collaboration (Chat, Rooms)	Live group discussions per paper	-	-	-	-
LLM-Powered Q&A Chatbot	Fine-tuned on papers	-	-	-	-
Summarization & Trend Analysis	NLP pipeline for abstracts + research trends	-	-	-	-
Bookmarking, Ratings, Progress Tracking	Personalized reader experience	-	-	yes	-