

Task 1: Topic Modeling Research Dashboard

Compare LDA, NMF, and BERTopic models with comprehensive evaluation

Dataset: 1000 documents from 20 newsgroups

Models trained successfully!

Model Comparison

	Model	Perplexity	Coherence
0	LDA	4713.2907	None
1	NMF	None	None

Discovered Topics

LDA NMF

- Topic 1: mb, x11r5, motif, os, professor, sabbath, thanks, uk
- Topic 2: just, edu, know, thanks, use, card, don, mail
- Topic 3: muslim, armenian, armenians, peace, russian, population, muslims, games
- Topic 4: turkey, objective, probably, attention, used, paper, related, want
- Topic 5: drive, port, irq, isn, steve, tell, sure, wrong
- Topic 6: window, server, menu, user, line, display, app, gas
- Topic 7: people, like, think, don, know, just, god, say
- Topic 8: serial, game, trade, meg, batf, play, went, bus

Install pyLDAvis for interactive topic visualization