**Automated popular science article generation with text simplification**

SE-E-11

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Scientific publications are essential for knowledge dissemination, but their complexity limits accessibility. As research advances, simplified content becomes increasingly important for informed decisions in fields such as healthcare and technology.  
This project has developed an LLM-based system that simplifies scientific texts while maintaining accuracy and coherence. Using NLP techniques, especially the T5 Transformer model, it processes multilingual texts and adapts to readability. Development involved dataset analysis, model training, and performance evaluation.  
The final system features a user-friendly interface for comparing original and simplified texts, bridging the gap between complex research and public understanding. Future enhancements will improve efficiency, expand language support, and address challenges in handling highly technical content.

Keywords: LLM, Multilingual Support, NLP, Scientific Accessibility, Text Simplification