

LEVERAGING EXPLAINABLE AI (XAI) FOR TRANSPARENT SENTIMENT ANALYSIS

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With the growing reliance on artificial intelligence for sentiment analysis across various platforms, the demand for transparency and trust has become crucial. Explainable AI (XAI) offers solutions to the black-box nature of AI systems by providing interpretable and understandable insights into model decisions. This paper explores how XAI can enhance transparency in sentiment analysis models, enabling users to understand AI-driven decisions. We examine various explainability techniques, discuss their practical applications in content moderation, recommendation systems, and social media marketing, and highlight the challenges and future directions in the field. Emphasis is placed on the need for a balance between explainability, performance, and user experience, ensuring ethical and transparent AI systems that foster user trust and engagement.