Leveraging Pre-Trained Language Models for Fact-Checking in the Context of Detainment Laws - Empowering Civilians with Immediate Access to Accurate Information

Abstract: My thesis proposes using pre-trained language models like GPT-4 or Microsoft's language models for fact-checking detainment laws. The goal is to develop an application that automatically processes user statements, generates a response with a pre-trained language model, and checks its accuracy against relevant laws. The application empowers civilians to hold authorities accountable and promotes transparency and informed decision-making. The system will use speech-to-text conversion, natural language processing, and fine-tuning on domain-specific data to improve accuracy and relevance. To ensure transparency, users will link a social media account capable of live streaming when downloading the app, allowing the app to fact-check statements from the officer's voice and activate a video stream for compliance.

Introduction: Advances in natural language processing, including GPT-4 and Microsoft's language models, allow for more effective processing of text, generating coherent and relevant responses. My thesis aims to leverage pre-trained language models to create an application for automatic fact-checking of detainment law-related user statements, providing accurate and reliable information.

Methodology: The proposed system will include a speech-to-text converter, a pre-trained language model, a fine-tuning module, a legal dataset, and a fact-checking module. Existing tools and libraries like Hugging Face's Transformers, OpenAI's GPT-4, and Colorado's detainment laws dataset will be utilized.

Expected Results: The system is expected to generate accurate responses to user statements related to detainment laws, evaluating its accuracy and relevance using test cases and user feedback. The performance will be compared to traditional fact-checking methods.

Conclusion: My thesis aims to use pre-trained language models for fact-checking detainment laws, providing users with accurate information and empowering them to hold authorities accountable. The effectiveness and usability of the system will be assessed through test cases and user feedback. The proposed approach promotes transparency, accountability, and informed decision-making, and can be extended to other legal domains. Requiring a live stream ensures transparency and accountability in the fact-checking process, further empowering civilians.