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 the use of pre-trained language models, such as GPT-4 or Microsoft's language models, for fact-checking in the context of detainment laws. The goal is to develop an application that can automatically process a user's statement related to detainment laws, generate a response using a pre-trained language model, and check the response against relevant laws to assess its accuracy and alignment. By providing immediate access to accurate information, the proposed application empowers civilians to hold authority figures accountable and promotes transparency and informed decision-making in society. The proposed system will leverage techniques such as speech-to-text conversion, natural language processing, and fine-tuning of pre-trained models on domain-specific data to improve the accuracy and relevance of the responses. Additionally, to ensure transparency, upon downloading the application, the user will need to link a social media account capable of producing a live stream. Once enabled, the app will not only fact-check the statements from the officer's voice but a video stream will be enacted as well for further compliance.

Introduction: The field of natural language processing has seen significant advancements in recent years, thanks to the development of pre-trained language models such as GPT-4 and Microsoft's language models. These models can process natural language text effectively, generating responses that are often coherent and relevant to the input. The proposed thesis seeks to leverage these pre-trained language models to develop an application that can automatically fact-check a user's statement related to detainment laws and empower them with accurate and reliable information.

Methodology: My proposed system will consist of several components, including a speech-to-text converter, a pre-trained language model for response generation, a fine-tuning module to improve the model's accuracy on detainment law scenarios, a legal dataset for comparison, and a fact-checking module to compare the generated response with relevant laws. The system will also include a user interface to allow users to input their statements via voice and receive a response. To ensure transparency, upon downloading the application, the user will need to link a social media account capable of producing a live stream. Once enabled, the app will not only fact-check the statements from the officer's voice but a video stream will be enacted as well for further compliance. The proposed methodology will leverage existing tools and libraries such as Hugging Face's Transformers, OpenAI's GPT-4, and Colorado's detainment laws dataset.

Expected Results: My proposed system is expected to generate accurate and reliable responses to user statements related to detainment laws, based on the input and relevant legal concepts. The system's accuracy and relevance will be evaluated using a set of test cases and compared to traditional fact-checking methods. The system's performance will also be evaluated based on user feedback and usability.

Conclusion: My proposed thesis aims to leverage pre-trained language models for fact-checking in the context of detainment laws, providing users with immediate access to accurate information and empowering them to fact-check authority figures who may abuse their power. The proposed system's effectiveness and usability will be evaluated based on a set of test cases and user feedback. The proposed methodology promotes transparency, accountability, and informed decision-making in society, and can be extended to other legal domains, providing a versatile and scalable approach to fact-checking and information retrieval. By requiring a live stream upon downloading the application, the proposed system ensures transparency and accountability in the fact-checking process, further empowering civilians to hold authority figures accountable.