EMOTION RECOGNITION SYSTEM FOR UK HMP JAILS USING FACIAL EXPRESSION

This proposal aims to develop an Emotion Recognition System customised for application within HMP jails across England using facial expressions recognition smile detection program. The system in my opinion is fantastic since this will review every single inmate's behavior patterns as soon as they enter the space of an emotional ride my system will bring newly developed technology which could bring well-being contributing to rehabilitation efforts within these environments simply by detection of using smiles which is fake or real.

INTRODUCTION:

The BSc Project requirements strongly emphasis that the project must be independent for it to be a computing project. This proposal would be emotion recognition technology designed and developed for facilities in this case The HMP jails so I would conduct research, design, implementation which would follow the criteria set by the BSc Project guidelines of Roehampton University London.

PROJECT OBJECTIVES:

- Research would be conducted regarding the existing emotion recognition technologies which would allow me to test and examine their suitability for being used in Jails (Loh, T.E., 2019).
- Design and develop an AI-powered emotion recognition system capable of discerning genuine emotions, prioritizing inmate well-being (Channel News Asia, 2019).
- Implement the system in a simulated correctional environment for comprehensive evaluation (Channel News Asia, 2019).
- Assess the system's efficacy in recognizing and responding to inmates' emotional states (Loh, T.E., 2019).

PROJECT METHODOLOGY:

- **Research Phase: give** a detailed comprehensive review on the emotion recognition technologies that are already in place but only limited with a focus on ethical considerations and relevance to HMP jails and others.
- Have a clear understanding on smile detection methodology used in deep machine learning and the effect it could have on the accresscy level
- **Design and Development Phase:** Here is the stage to create an AI-based system for smile Development detection tool which is developed and designed for the for-jail inmate emotional health.
- **Testing and Evaluation Phase:** Deploy the system in a simulated jail maybe at the University with a few students collecting and analyzing data on accuracy, efficiency, and impact on inmate emotional support (Channel News Asia, 2019).
- **Duchenne Smile:** A Duchenne smile is what my system would be based open as it refers to a genuine smile which means that when he or she smiles the system is able to define and see if it involves the facial expression which he or she raise the corners of the mouth and has crow's feet around the eyes moving,

- The system would also be able to consider factors such as examining the intensity of the smile and might be able to define a real smile by the duration of time that the smiles would support the differentiate between forced or polite smiles of someone and genuine expressions of happiness which could all pay a big role on the model project.

MODEL BASED SET

The model would be able to be built on consistency of the smile across different facial regions and its congruence with other facial expressions helps ensure its authenticity. Genuine smiles often harmonize with other facial features, conveying a sense of authenticity so for this reason my project would limit the results of wrong data.

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