

ABSTRACT

Facial recognition is at the core of Computer Vision and Artificial Intelligence, identifying gender and age through human faces. Law Number 36 of 2009 concerning health emphasizes an inclusive and sustainable approach in efforts to improve welfare. Common problems such as lack of ineffective health services for the age group, lack of data and information related to productive age health services. The world health organization (WHO) age classifications to guide appropriate health measures. Facial image-based gender and age classification system contributes to disease diagnosis and medication dosage adjustment. Detection of health signs on the face provides early indications of disease risk, allowing for appropriate dose adjustment. The CNN (Convolutional Neural Network) method is used to predict gender and age with a high degree of accuracy, strengthening facial image recognition and its implementation in health. This study used a total of 2580 facial images consisting of two gender classes, namely male and female, as well as four age category classes, namely children, adolescents, adults and the elderly. The system will be trained using 5 convolutional layers, epoch and batch size parameters to produce the highest accuracy values and the lowest loss values. The training process produces the best value at epoch 30 and batch size 30 with an accuracy of 96.87% for gender testing and 95.62% for age detection testing.

Keywords: Face Recognition, CNN, Gender, Age, Health.