

CHAPTER 1

INTRODUCTION

Facial analysis systems can ultimately change the way we live. Allied to Artificial Intelligence, it can provide personal assistance in every aspect of life. It can estimate our mood from the start of the day, connect itself to our habits and other factors. It can provide the perfect meal for the moment, the best music to accompany that meal, and the perfect outfit linked to the weather prediction. Machines will be capable of taking care of the uninteresting part of life. There are several real-world applications including security and video surveillance, electronic customer relationship management, biometrics, electronic vending machines, human-computer interaction, and entertainment. Deep Learning and Convolutional Neural Networks are a hot-topic in the field of Machine Learning. Many breakthroughs are being reached every other day. Being a part of that is what motivates us to develop this work. Mobile phones are already a huge part of our lives, and combining them with the power of deep learning can create user experiences that delight and impress users. There is no proper android application implementing facial recognition combining gender, age, and emotion of a human. Therefore, we have chosen to address this problem.