ABSTRACT

Movie posters are a communicative medium to promote and provide an initial overview of the genre of a film. Identifying the genre of a poster becomes challenging because posters often represent multiple genres, making it crucial for recommendation systems. To solve this problem, an automated system is needed that classifies posters into the appropriate genre using a Convolutional Neural Network (CNN). This thesis attempts to create and compare a multi-label classification system of film genres based on posters with the two architectures InceptionResNetV2 and Xception. The Dataset used is 1000 posters with five genre classes action, comedy, drama, horror, and romance. Adam optimizer and transfer learning are used to optimize the model. The comparison between CNN models is based on the hamming loss score and accuracy value. The results indicate that Xception outperforms InceptionResNetV2, achieving an accuracy of 66,6% on validation data and 68.3% on test data, while InceptionResNetV2 only achieves 65% on validation data and 64.3% on test data. In addition, Xception shows a lower hamming loss of 0.138 on test data and 0.167 on validation data, compared to InceptionResNetV2 hamming loss of 0.176 on test data and 0.173 on validation data.

Keywords*: movie poster, genre movie, CNN, inceptionresnetv2, xception*