Translasi Citra Antara Manusia Dan Wayang Orang Menggunakan
Generative Adversarial Network

Ciara Nurdenara[1], Wikky Fawwaz[2]

[1,2]Fakultas Informatika, Universitas Telkom, Bandung
[1]ciarand@students.telkomuniversity.ac.id, [2]wikkyfawwaz@telkomuniversity.ac.id

Abstract
Only a few people know about Indonesian traditional culture, especially wayang orang performances. Thewayang orang players took about an hour to become a properwayang orang. We need to rent unique costumes that are hard tofind and learn wayang orang makeup that can take a long time tomaster. Using image translation can make it easier for everyone to have the opportunity to see themselves as wayang orang.This study aims to translate human faces into wayang orang by adding makeup and accessories using the Generative Adversarial Network (GAN) and using unpaired dataset consist of 1216 data trains and 240 data tests. The challenge of this research is tomaintain the image background and the facial identity componentin the input image. This research uses quantitative testing employFID, KID, and IS to evaluate the quality of the generated image from the generator. The experimental result from this study is that UGATIT has the better result from DCLGAN based on the value from Inception Score, FID, and KID. Based on the IS, FID,and KID, the UGATIT has better results than the DCLGAN. Theresults from the UGATIT in IS, FID, and KID in the following order are 2.414, 0.810, and 6.221, which means UGATIT can perform better than the DCLGAN.
Keywords: image translation, GAN, unpaired dataset, wayang orang.