papers summary

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目 次

1 STARGAN

Unified Generative Adversarial Networks for Multi-Domain Image-to-Image Translation [1]

1.1 Abstract

Image to Multi Domain Image ができる GAN。経験則的に顔の部分と表情の変換には効果的なモデル。

1.2 Intro

1.2.1 Dataset

- CelebA[2]：10,177 人のセレブ、202,599 サイズ、40 種類の表情のデータセット
- RaFD[3]：67 人の 8 種類の表情のデータセット

1.2.2 Compare

既存の multi domain モデルは、k 個のドメインに対して $k(k-1)$ 個の generator を学習させる必要がある。が、StarGAN は一個だけでいいんだよ (1.1)。

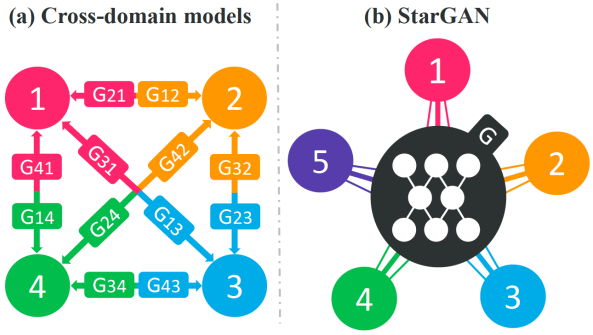

図 1.1: Compare

参考文献

[1] Choi, Yunjey and Choi, Minje and Kim, Munyoung and Ha, Jung-Woo and Kim, Sunghun and Choo, Jaegul. StarGAN: Unified Generative Adversarial Networks for Multi-Domain Image-to-Image Translation. In *Proceedings of The IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*. June, 2018.

[2] Ziwei Liu and Ping Luo and Xiaogang Wang and Xiaoou Tang. Deep Learning Face Attributes in the Wild. In *Proceedings of International Conference on Computer Vision (ICCV)*. December, 2015.

[3] Langner, O., Dotsch, R., Bijlstra, G., Wigboldus, D.H.J., Hawk, S.T., & van Knippenberg, A. (2010). Presentation and validation of the Radboud Faces Database. *Cognition & Emotion, 24(8)*, 1377—1388. DOI: 10.1080/02699930903485076