

~:Key Contributions of StyleGAN 2 (Karras et al 2020):~

1. Provided Important metrics to quantify the GANs generated images with supporting claims that FID and PPL are the best metrics to measure the images.
2. Released several pretrained models which are available for free on NVIDIA Labs GitHub page.
3. Releases a huge dataset called FFHQ (FLICKR FACE HIGH QUALITY) for Open Source Community.
4. Able to generate high quality images which fools time limited humans.
5. Provided a baseline work to research more about the development of strong metrics apart from PPL and FID.
6. Benchmark results in the Style GAN workline for different datasets.
7. The thirst of getting better results in SG2 is held with this paper (not stopped). Because it is able to generate best results on FFHQ, the images generated are very realistic.
8. Removed noises which were generated during the style mixing and stochastic variations of SG1.

~:Key Contributions of StyleGAN 1 (Karras et al 2019):~

1. Enhancement of ProGAN.
2. Manipulates entangled features.
3. High Quality realistic images. Outstanding results on Realistic Synthetic Human Faces.
4. The purpose of NVIDIA's StyleGAN is to overcome the limitations of a traditional GAN, wherein control may not be possible for individual characteristics of data, such as facial features in photographs.
5. Styles tweaking as per our choice.
6. The techniques presented in StyleGAN, especially the Mapping Network and the Adaptive Instance Normalisation (AdaIN), are the basis for future innovations in GANs. (More ahead of StyleGAN2 (T. Karras et al. 2020))