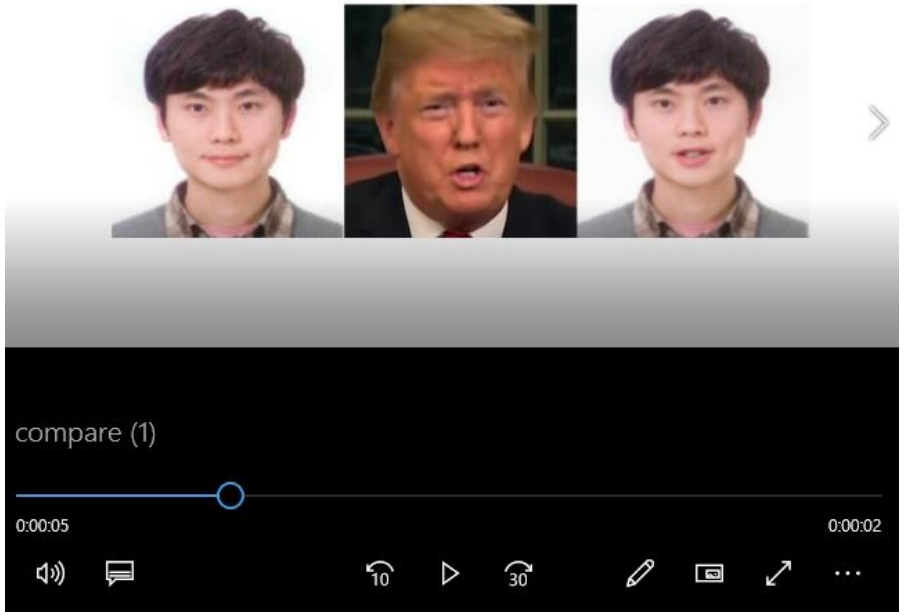
과제1 : 영상데이터 결과 분석

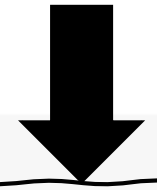
Feat. **colab**

과제1

- 논문
  - Title: **First Order Motion Model for Image Animation**
  - Presented ***NeurIPS***, 2019
  - [arXiv ver.] https://arxiv.org/pdf/2003.00196.pdf



과제1 : 아래 **코드 추가**



```
source_image = imageio.imread('/content/gdrive/My Drive/first-order-motion-model/your_img.png')
driving_video = imageio.mimread('/content/gdrive/My Drive/first-order-motion-model/04.mp4', memtest=False)


#Resize image and video to 256x256

source_image = resize(source_image, (256, 256))[..., :3]
driving_video = [resize(frame, (256, 256))[..., :3] for frame in driving_video]

predictions = make_animation(source_image, driving_video, generator, kp_detector, relative=True,
                             adapt_movement_scale=True)

HTML(display(source_image, driving_video, predictions).to_html5_video())
```

```
100%|██████████| 211/211 [00:25<00:00,  8.17it/s]
```

과제1 : 동영상 **화면캡쳐**

```
source_image = imageio.imread('/content/gdrive/My Drive/first-order-motion-model/your_img.png')
driving_video = imageio.mimread('/content/gdrive/My Drive/first-order-motion-model/04.mp4', memtest=False)


#Resize image and video to 256x256

source_image = resize(source_image, (256, 256))[..., :3]
driving_video = [resize(frame, (256, 256))[..., :3] for frame in driving_video]

predictions = make_animation(source_image, driving_video, generator, kp_detector, relative=True,
                             adapt_movement_scale=True)

HTML(display(source_image, driving_video, predictions).to_html5_video())
```

```
100%|██████████| 211/211 [00:25<00:00,  8.17it/s]
```

0:04 / 0:10

```
source_image = imageio.imread('/content/gdrive/My Drive/first-order-motion-model/spark.png')
driving_video = imageio.mimread('hinton.mp4', memtest=False)


#Resize image and video to 256x256

source_image = resize(source_image, [illegible], 256))[..., :3]
driving_video = [resize(frame, (256, 256))[..., :3] for frame in driving_video]

predictions = make_animation(source_image, driving_video, generator, kp_detector, relative=True,
                             adapt_movement_scale=True)

HTML(display(source_image, driving_video, predictions).to_html5_video())
```

```
100%|[illegible]| 240/240 [00:28<00:00,  8.30it/s]
```

과제1 요약

- Colab에서 다양한 영상데이터를 테스트해보기
- Requirement:
  - 보고서 제출 1편(보고서에는 아래의 내용이 반영될 것)
    - Source image (or driving video) 변경 여부를 확인할 수 있는 코드 부분 캡쳐
    - **자연스러운** 결과 화면 캡쳐 1 (source & driving video & generated video 동시에 나오는 화면)
    - **부자연스러운** 결과 화면 캡쳐 1 (source & driving video & generated video 동시에 나오는 화면)
    - 두 화면의 차이를 추론하여 보고(1단락 이상)
- 주의할 점
  - 두 캡쳐는 1) 동일한 source image로 생성하거나 2) 동일한 driving video로 생성해야 함.
  - 본인의 google drive 계정을 생성하되,
    - 보안 등 만일을 대비하기 위하여 잘 안쓰는 구글계정 사용할 것을 권고함.
  - Input data(either image or video)는 새로운 데이터이어야 함
    - 해당 colab에서 제공하지 않는 영상데이터이며, **사람**임을 식별할 수 있어야 함.

문의사항

- 과제 내용 관련 질의 : 김동휘 조교
- 성적평가 : 박상효 교수