Generative models improve radiomics

Propositions

Generative Models Improving Radiomics Reproducibility and Performance in Low Dose CTs

1. Radiomics is the bridge between medical imaging and personalized medicine. (Lambin P et al.)
2. Low dose CTs should be more popular for screening and monitoring of populations at risk due to the long term risk posed by low levels of ionizing radiation exposure. (Musolino S et al.)
3. Developing a radiomics prediction model for early lung cancer classification in low-dose CT can reduce the mortality of lung cancer. (Wookjin C et al.)
4. Deep generative models outperform traditional methods in low dose CTs denoising. (Chen H et al.)
5. Not all shortcuts in encoder-decoder networks are necessary for low dose CTs denoising. (This thesis)
6. Generative models can improve radiomics reproducibility and performance in low dose CTs. (This thesis)
7. Denoising seems to be a useful pre-processing step to consider for low dose CT radiomics. (This thesis)
8. Low dose CT radiomics can be applied into a new scenario: early diagnosis of lung cancer at a patient level. (This thesis)

9. Improving low dose CT radiomics performance may reduce ionizing radiation exposure for patients. (This thesis)
10. Some people call this artificial intelligence, but the reality is this technology will enhance us and our equipment. So instead of artificial intelligence, I think we'll augment our intelligence. (Ginni Rometty)