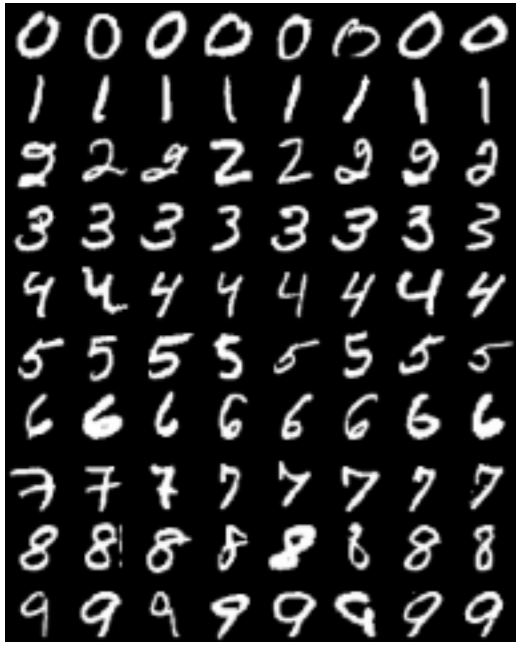
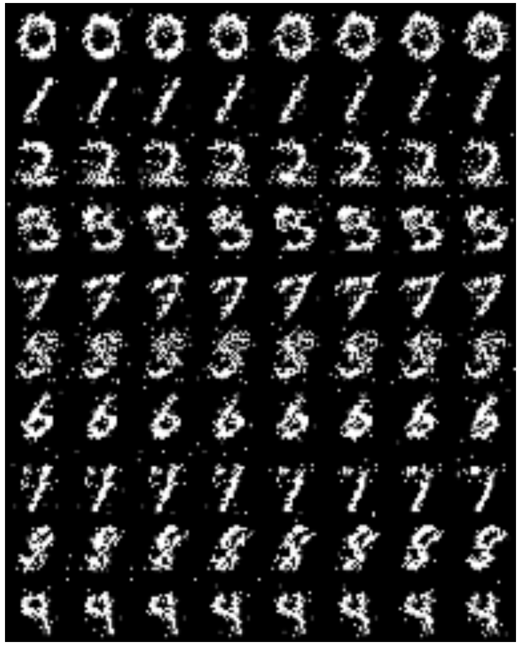
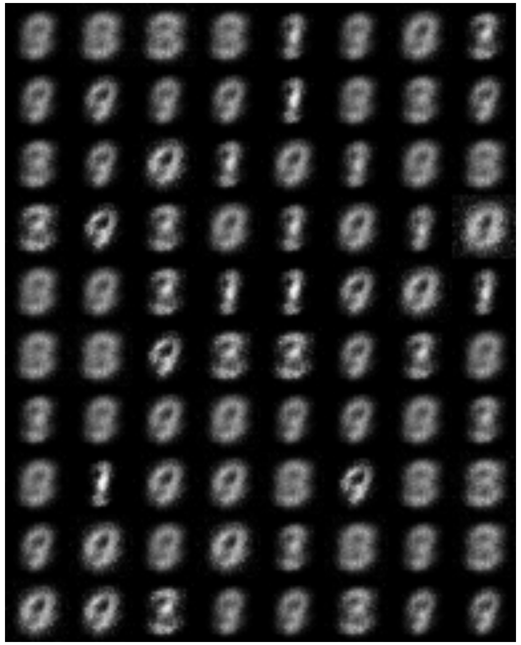
Synthetic Samples (MNIST)



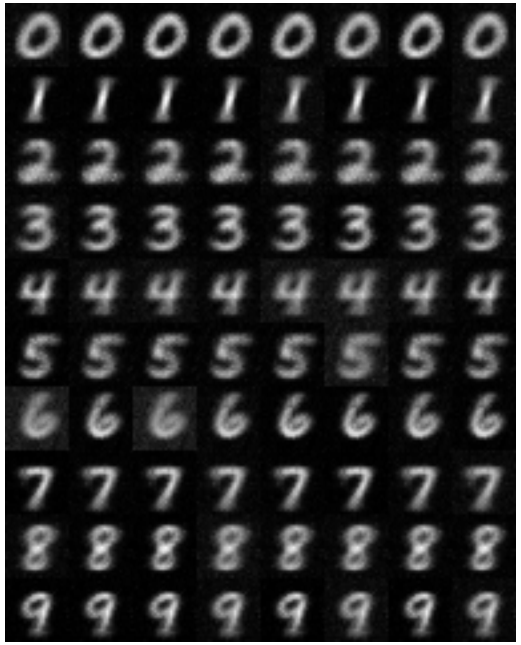
Original samples



RBM samples



VAE w/o clustering



VAE with clustering

20 SGD epochs (epsilon=1.74)

Agenda

1. Training (Distributed) ML Models with Privacy

2. Private Data Release with Generative Neural Networks

3. Privacy Leakage from Generative Models as a Service

4. Privacy Leakage in Collaborative/Federate ML