

## Goal of generative modeling

~~GenAI  
Principles~~

Estimate  $p_x$  & learn to sample from it.

i) Assume a parametric family on  $p_x$ , denoted by  $p_\theta$

$p_\theta$  : represented using deep Neural Networks (Model)

ii) Define & estimate a divergence (distance) metric between  $p_\theta$  and  $p_x$ .

iii) Solve an optimization problem over the parameters of  $p_\theta$ , to minimize the above divergence metric.