What are Generative Models?

What we will be covering in this module?

- Introduction to Image Generation

- **What are Generative Models?**

- Understanding Generative Adversarial Networks

- Project on Texture Generation using GANs
  - Simple Implementation
  - Better GAN Architectures

- What's Next?

How to solve an Image Generation problem?

Give me an image of a Dog →

How to solve an Image Generation problem?

Give me an image of a Dog

How to solve an Image Generation problem?

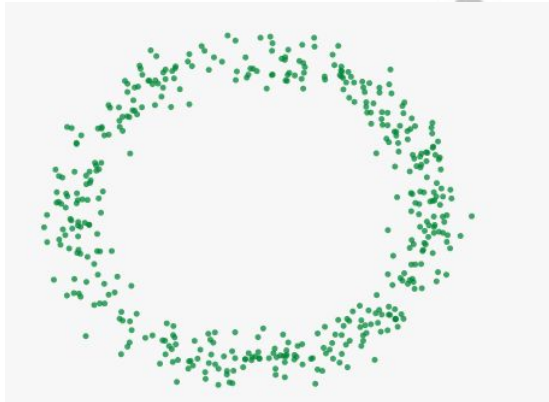**Generative Models**

Give me an image of a Dog

What is a Generative model?

- The **Generative Models**

  - First learn the distribution of the training set

  - Then generate new observations using the learned distribution
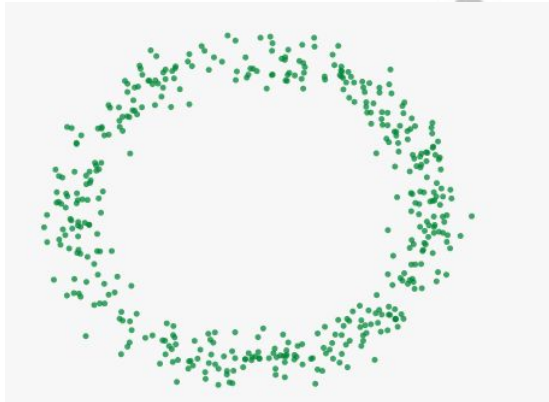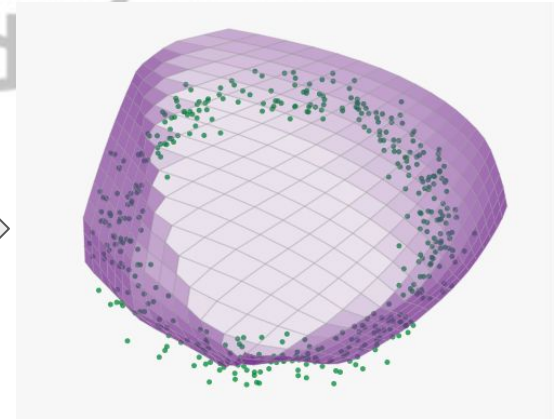
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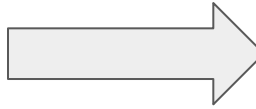

Original Distribution

What is a Generative model?

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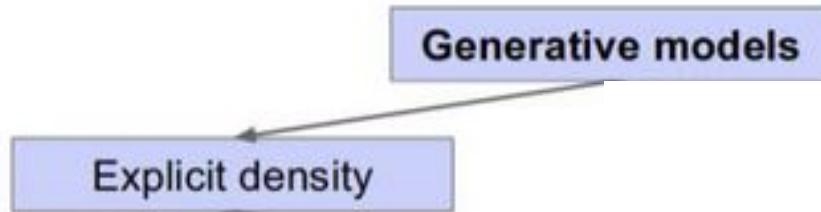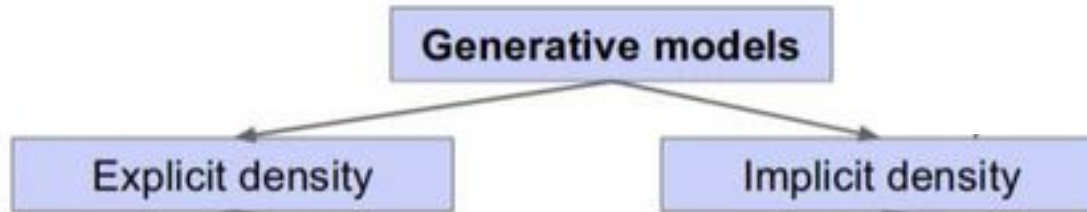

Original Distribution
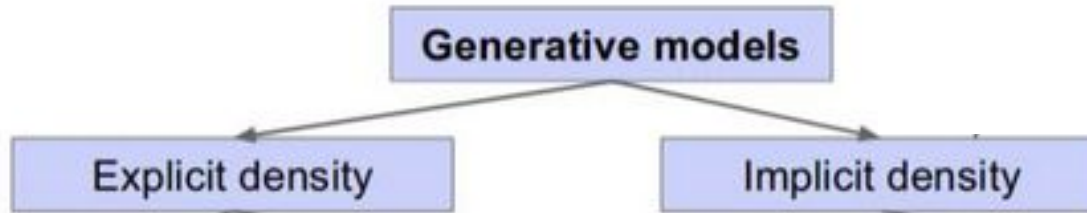
Generated Distribution

Types of Generative models

Types of Generative models

Generative models

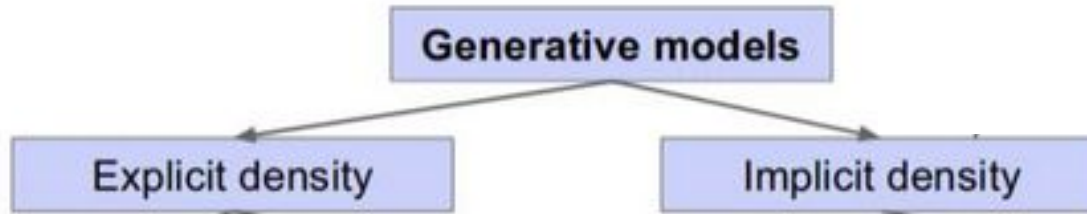Explicit density

Types of Generative models
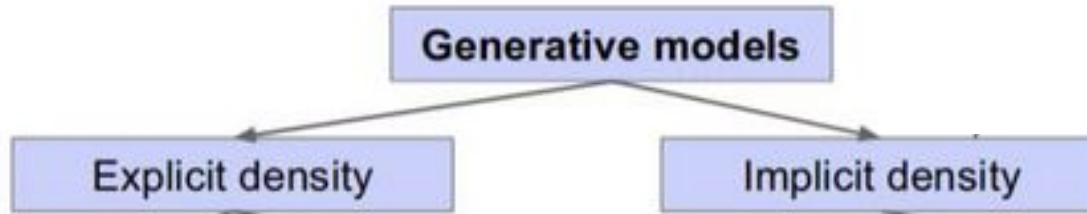
Types of Generative models

- PixelRNN/CNN

- Variational Autoencoder

Analytics
Vidhya

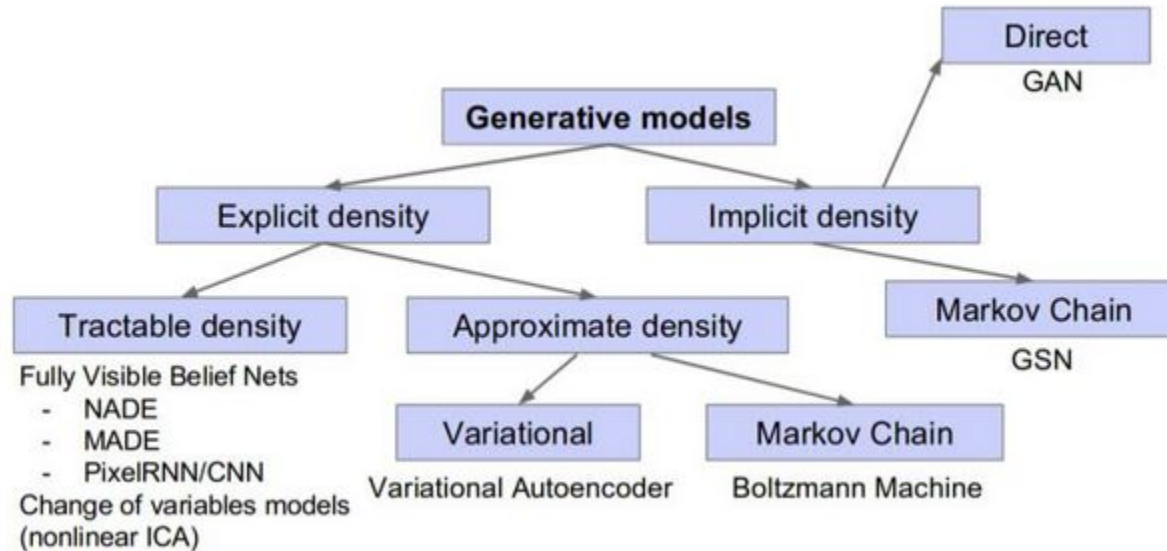# Types of Generative models

- PixelRNN/CNN

- Variational Autoencoder

- Generative Adversarial Networks

- Boltzmann Machine

Types of Generative models

- PixelRNN/CNN

- Variational Autoencoder

- **Generative Adversarial Networks**

- Boltzmann Machine

Thank you

Types of Generative models

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