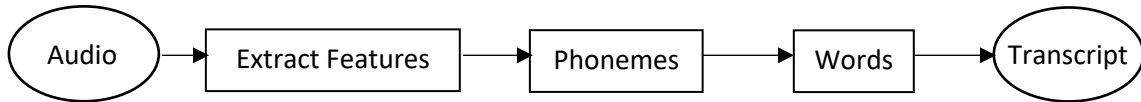# What is end-to-end deep learning
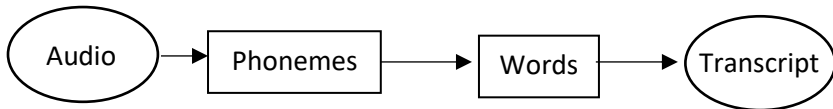
End-to-end deep learning is the simplification of a processing or learning systems into one neural network.

Example - Speech recognition model

The traditional way - small data set

Audio → Extract Features → Phonemes → Words → Transcript

The hybrid way - medium data set

Audio → Phonemes → Words → Transcript

The End-to-End deep learning way – large data set

Audio → Transcript

End-to-end deep learning cannot be used for every problem since it needs a lot of labeled data. It is used mainly in audio transcripts, image captures, image synthesis, machine translation, steering in self-driving cars, etc.