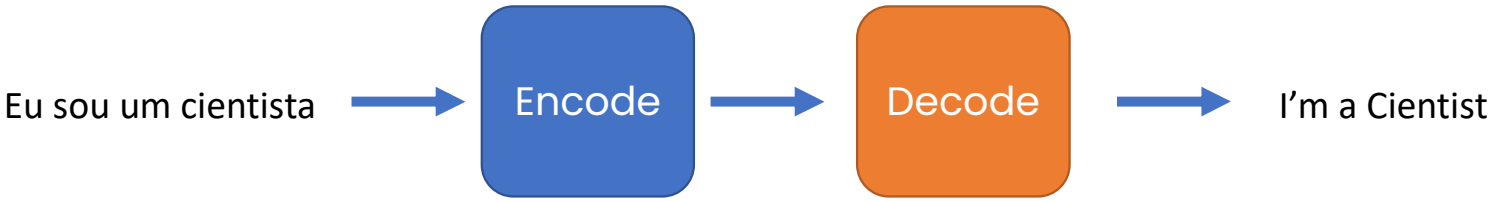
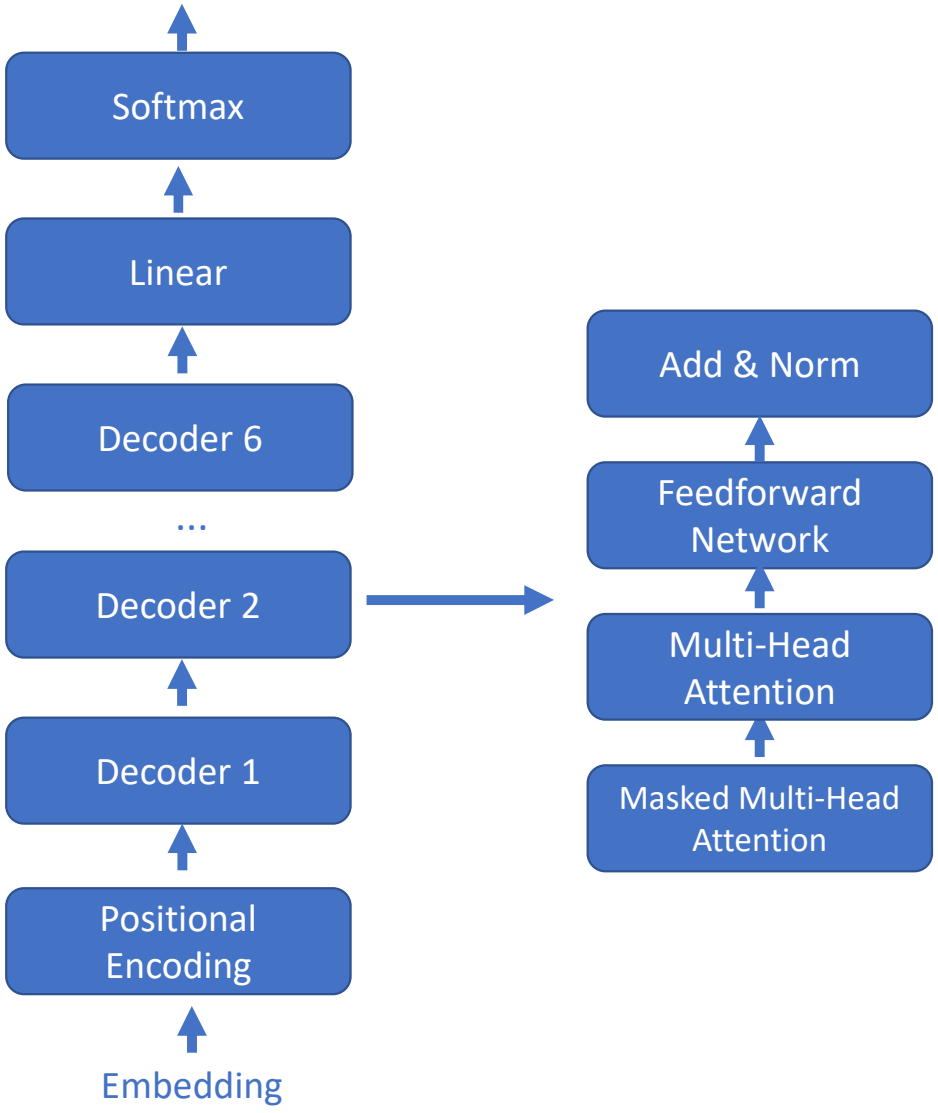
Decoder



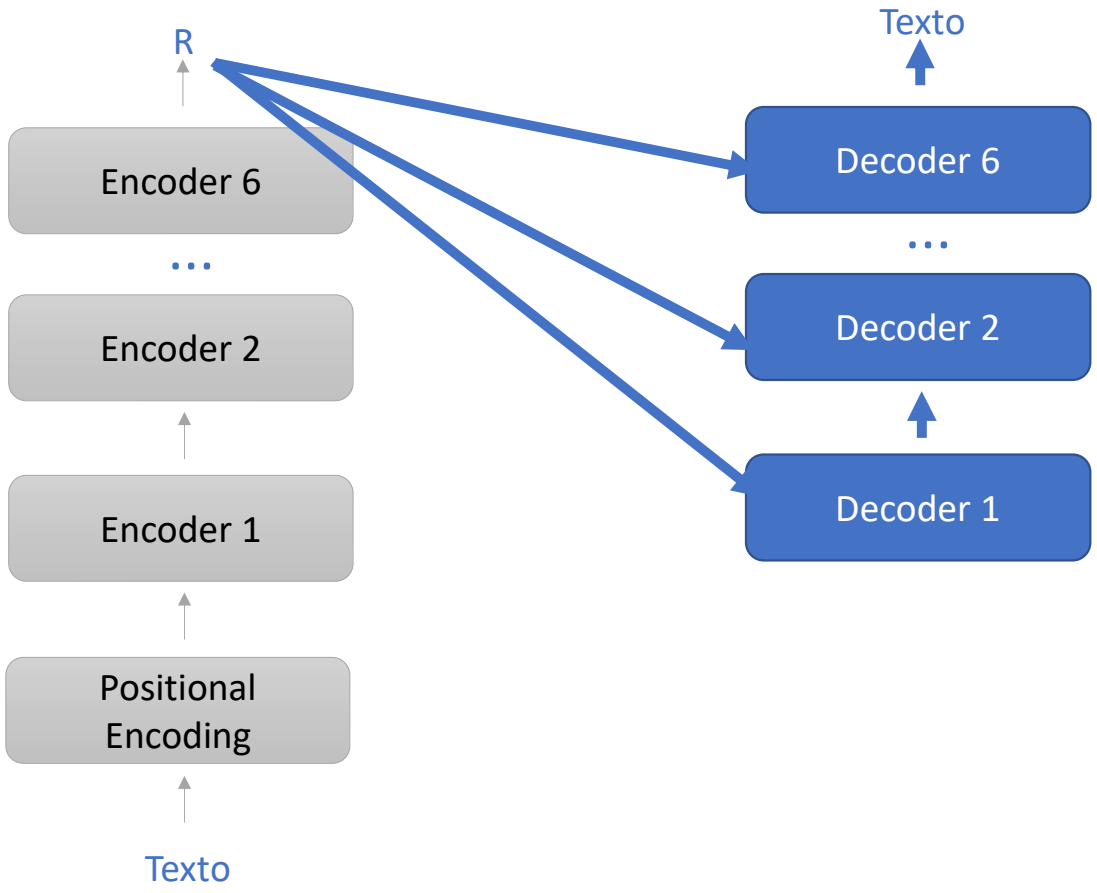
- # Decoder

  Também são camadas empilhadas

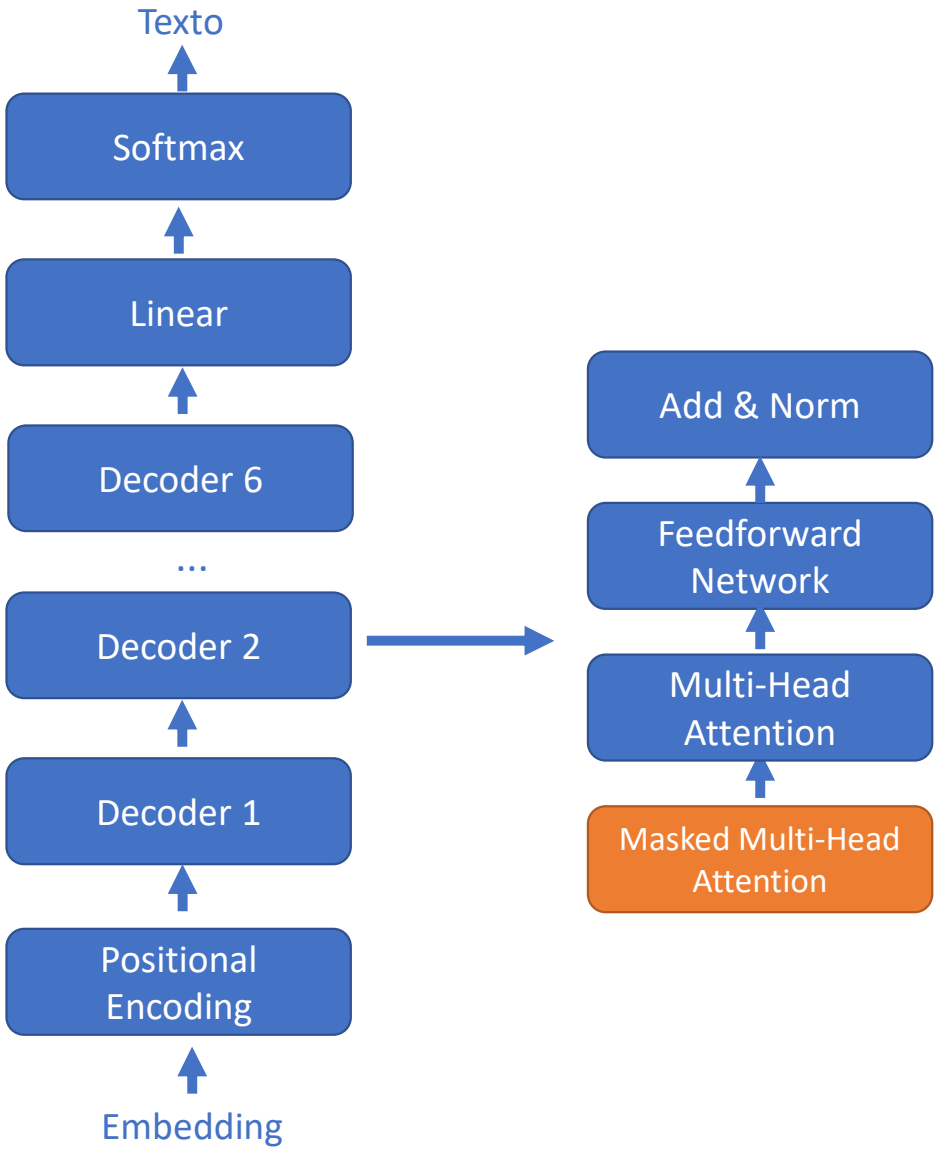
  Também ocorre a conversão para embedding e positional encoding



- Cada Decoder recebe 2 entradas:
  - decoder anterior
  - a saída do encoder
- A conexão é com o elemento Multi-head attention do decoder



Decoder


Texto
Softmax
Linear
Decoder 6
...
Decoder 2
Decoder 1
Positional Encoding
Embedding
Add & Norm
Feedforward Network
Multi-Head Attention
Masked Multi-Head Attention

Masked Multi-Head Attention

- <sos> Start of sentence
- <eos> End of sentence

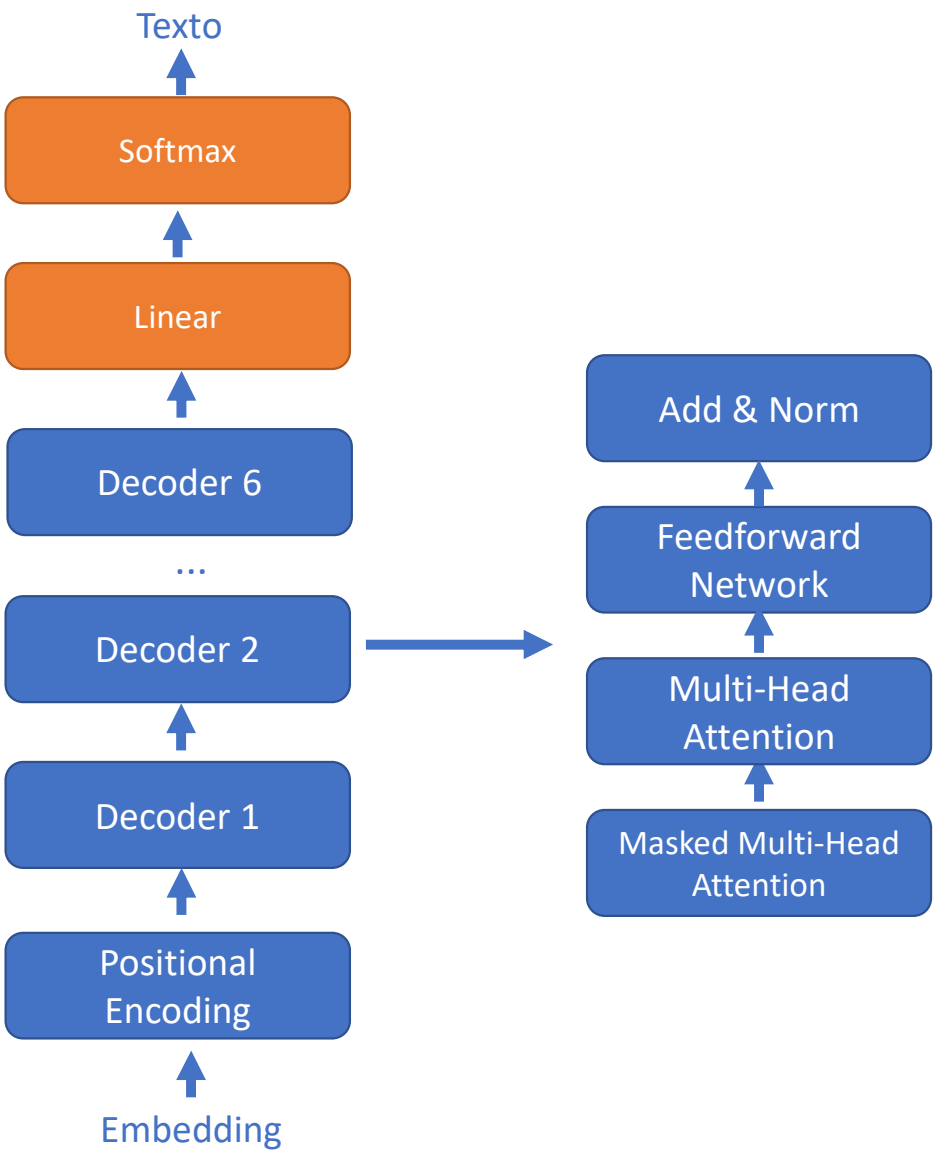
- <sos> + “prever primeira sentença:” The
- <sos> + The “prever próxima:” animal
- <sos> + The + animal + ... + <eos>

Masked Multi-Head Attention

Palavras a direita são mascaradas, de forma incremental...

	The	Animal	Didn’t	cross	the
The	**0,9**	**---**	**---**	**---**	**---**
Animal	**0,57**	**0,79**	**---**	**---**	**---**
Didn’t	**0,61**	**0,08**	**0,79**	**---**	**---**
cross	**0,79**	**0,39**	**0,60**	**0,39**	**---**
the	**0,60**	**0,57**	**0,39**	**0,57**	**0,39**

Decoder


Texto
Softmax
Linear
Decoder 6
...
Decoder 2
Decoder 1
Positional Encoding
Embedding
Add & Norm
Feedforward Network
Multi-Head Attention
Masked Multi-Head Attention

Linear e Softmax

- Linear produz um vetor com o tamanho do vocabulário
- Softmax produz as probabilidades
- Decoder gera as palavras com maior probabilidade