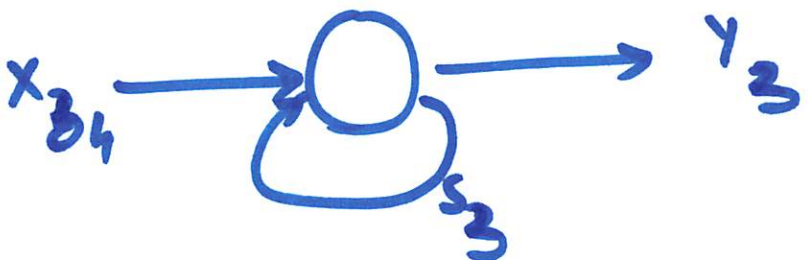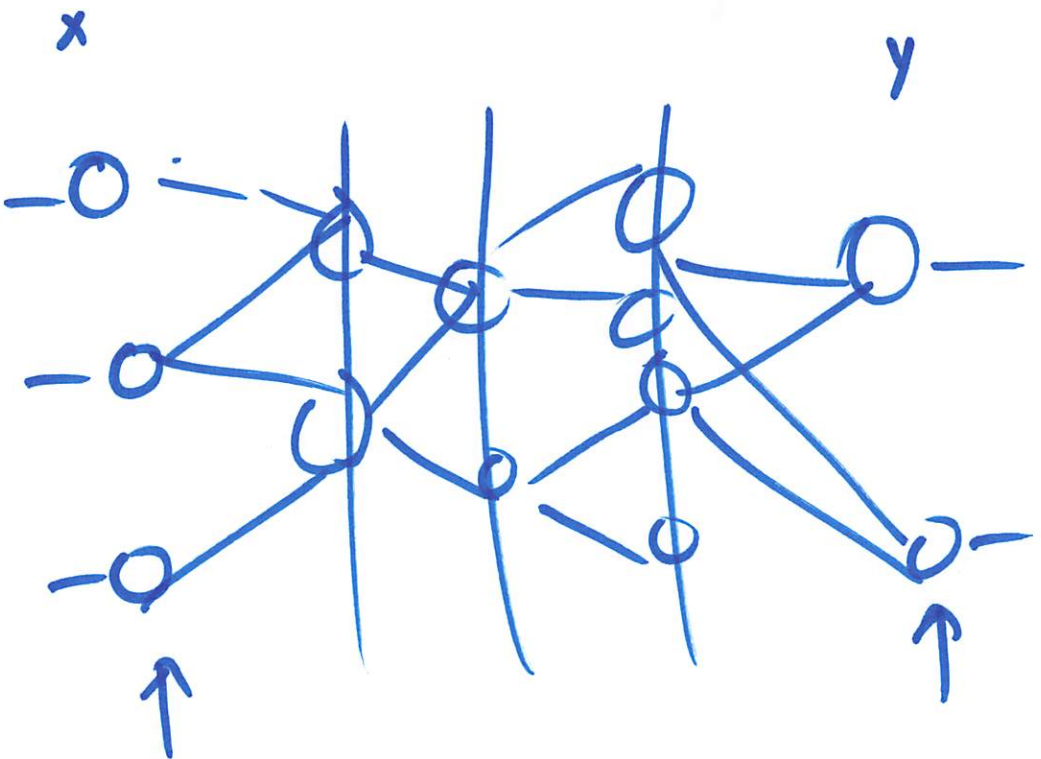# History

- The Dawn of NLP: 1950s to 1970s

  - Turing test (1950), ELIZA(1966), SHRDLU (1970)

- NLP Evolution: 1980s-1990s

  - Rules-based -> Statistical methods

- Machine Learning and NLP: 2000s+

  - machine learning, especially neural networks, revolutionizes NLP

  - WordEmbeddings (early 2000s)

  - Deep learning (2006)

  - RNNs (2010)

  - Word2Vec (2013)

  - Attention Mechanisms (2014)

  - BERT (2018)

  - GPT-3 (2020), GPT-3.5 (2022), GPT-4 (2023)

Handwritten annotations: RNN; King - Male + female = Queen; 2014-2015; 2015 - 2016; RNNs + Attention; 2017

x

y

$x_{3_4} \longrightarrow \quad \longrightarrow y_3$

$X_1 \quad X_2 \quad X_3 \quad X_4 \qquad\qquad X_5$

- Can you tell me the weather in Austin?

- Set an alarm for five minutes.

- The sun set behind the rolling hills

- As the sun set behind the rolling hills, painting the sky in hues of orange and pink, the travelers, weary yet content from their day's journey, gathered around the crackling campfire, sharing stories and laughter, while the aroma of the evening meal, a hearty stew simmering in a large pot, filled the air, promising warmth and comfort in the cool night.