

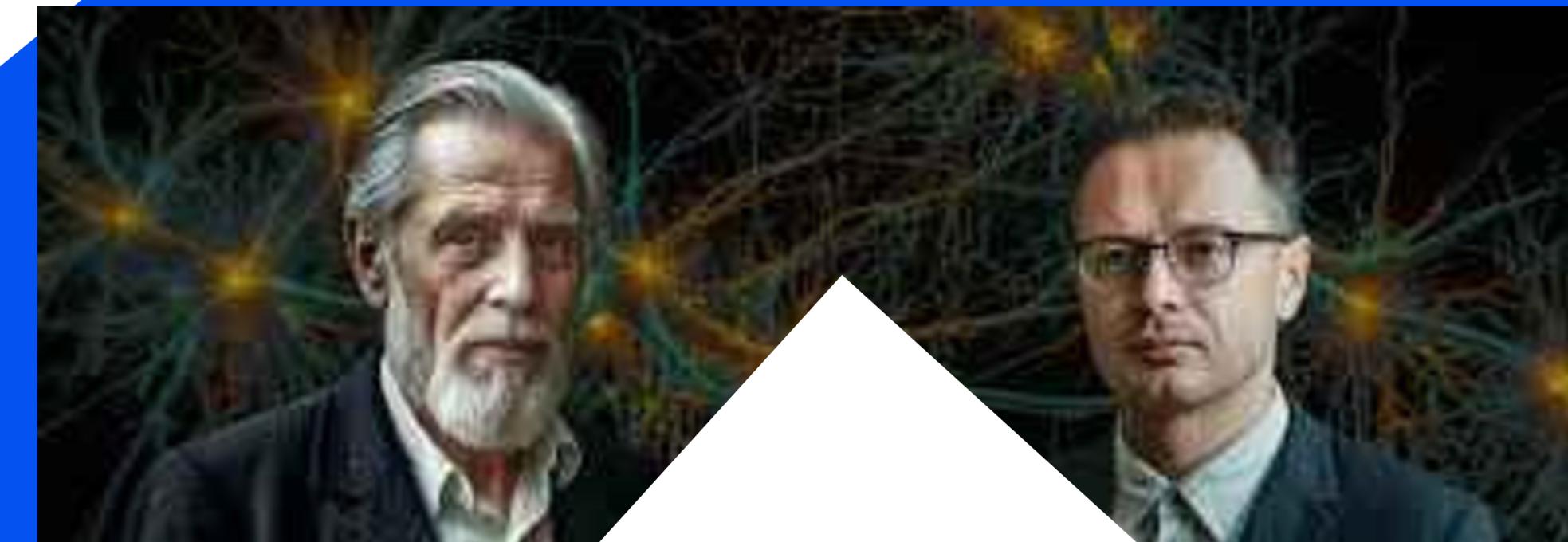
History of AI

Ilias Beknazarov
cs-32

History of Neural Networks

- Cybernetics -
Кибернетика. 1940

Cybernetics Era – First Neural Model (1940-1943)



Pitts and McCulloch

Perceptron (1958)

First Learning Network – Perceptron

Frank Rosenblatt



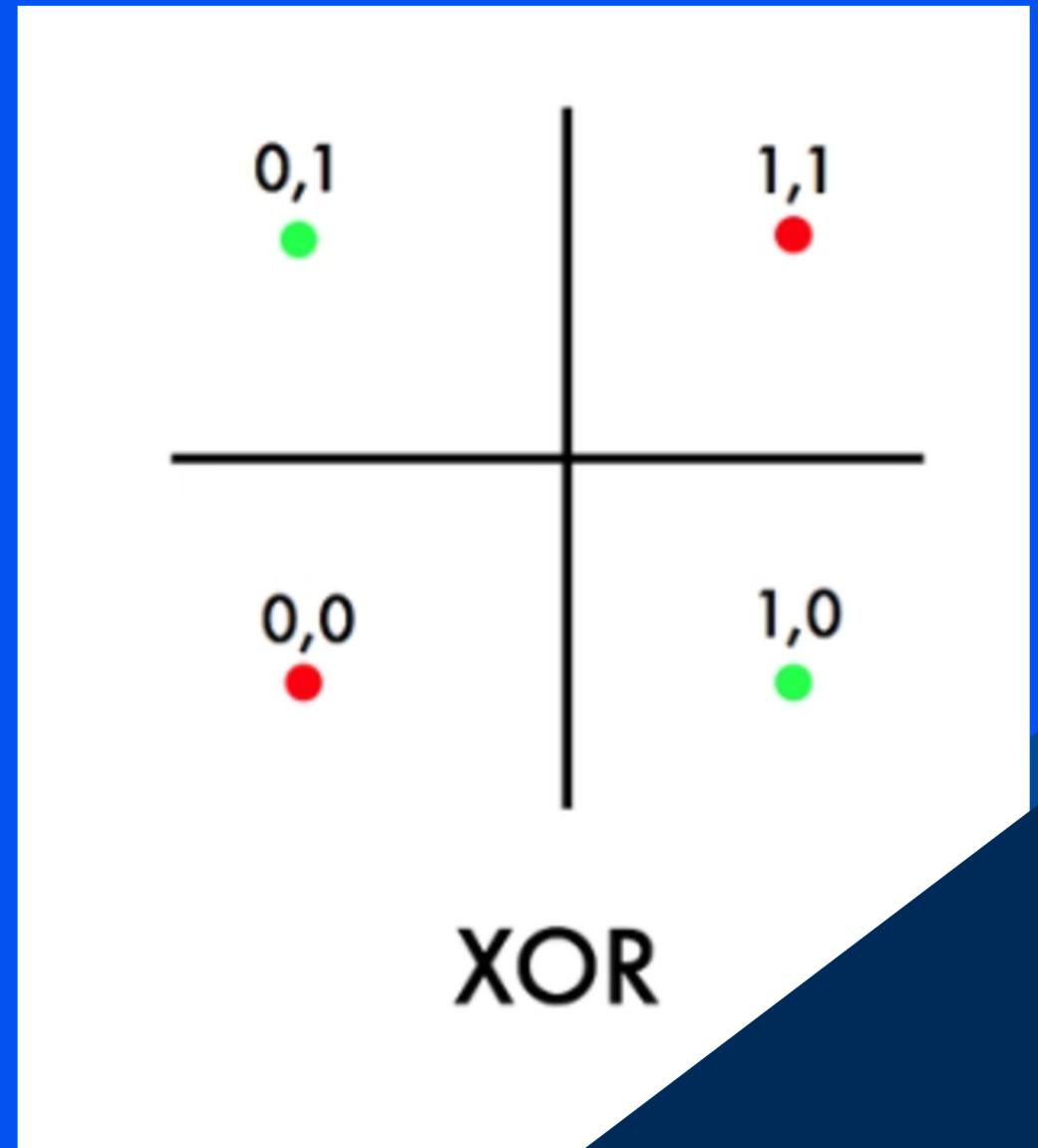
First “AI Winter” (1969)

Limitations & Funding Cut

- Marvin Minsky
- XOR



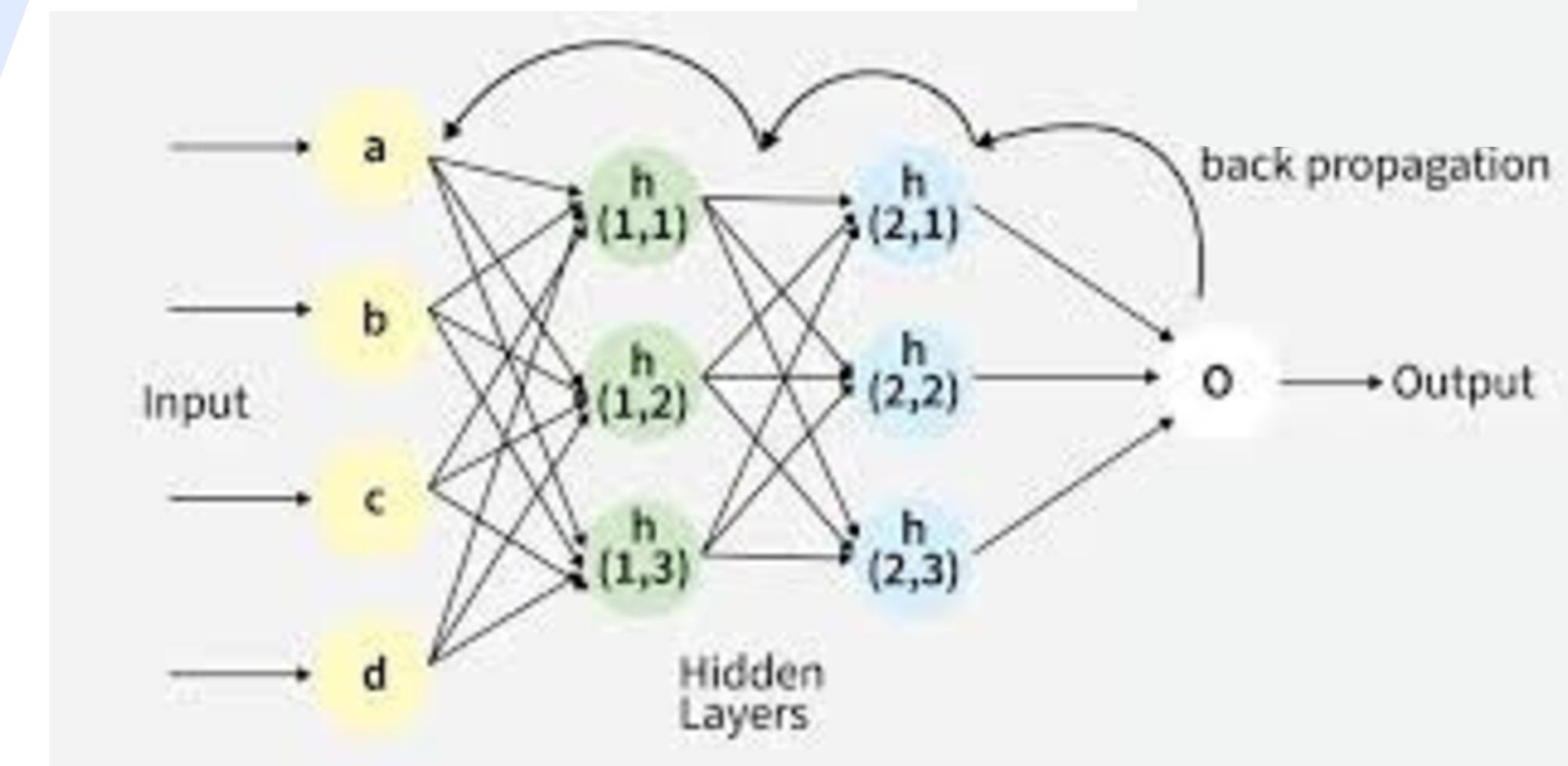
Marvin Minsky



Backpropagation (1974–1986)

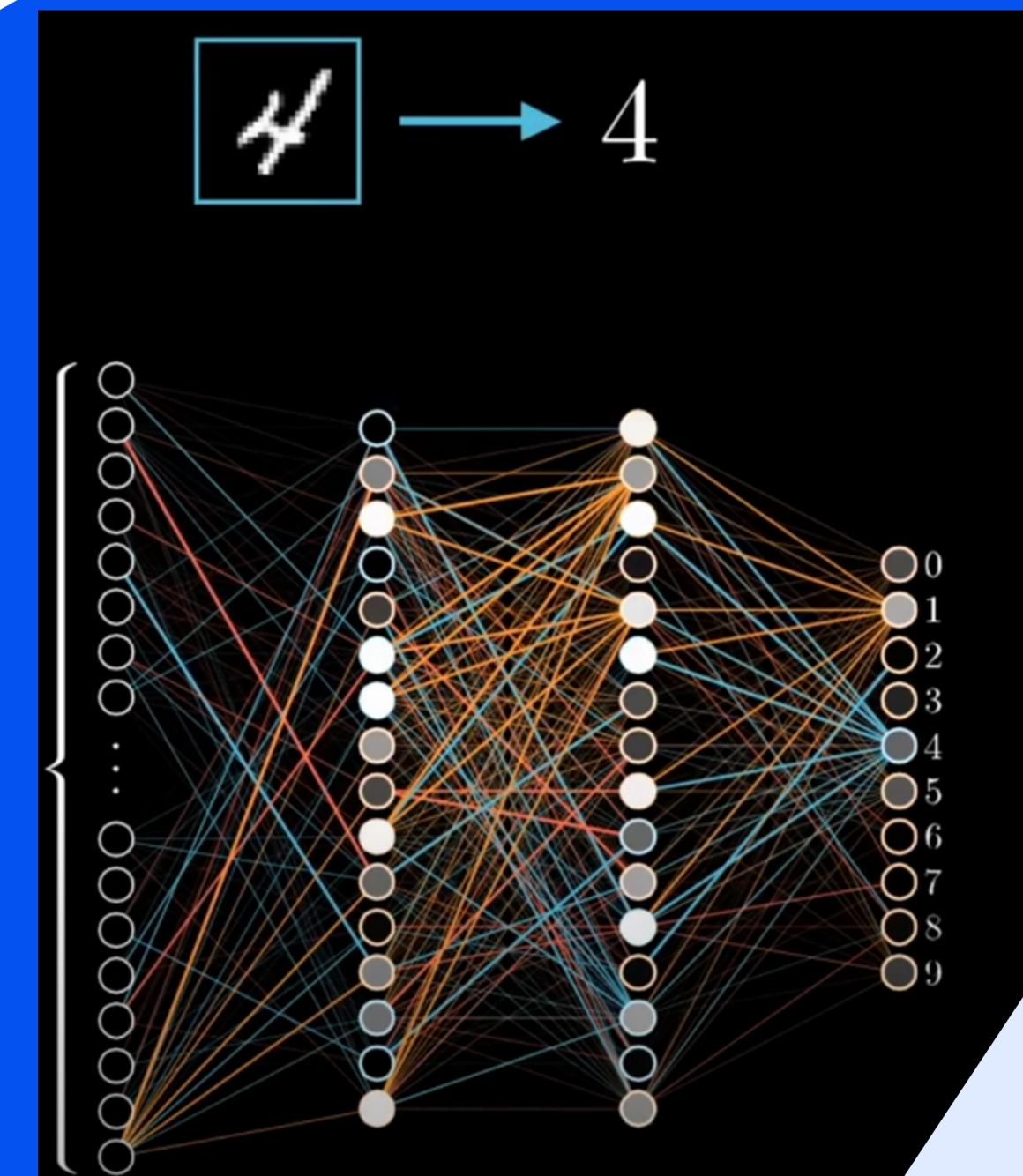
Multi-Layer Networks & Backpropagation

- Paul Verbos
- backpropagation
- Geoffrey Hinton



New Architectures (1989–1990s)

Convolutional Neural Network (CNN)
Recurrent Neural Network (RNN)
for Images and Text



Second “AI Winter” (1990s)

Lack of Data and Computing Power



Deep Learning (2006)

- Geoffrey Hinton
- revolution of deep learning

Transformers (2017–Today)

Transformers Revolution (e.g., ChatGPT)



“Attention Is All You Need”.
-start -
**ChatGPT, Google Translate,
and Images generation**