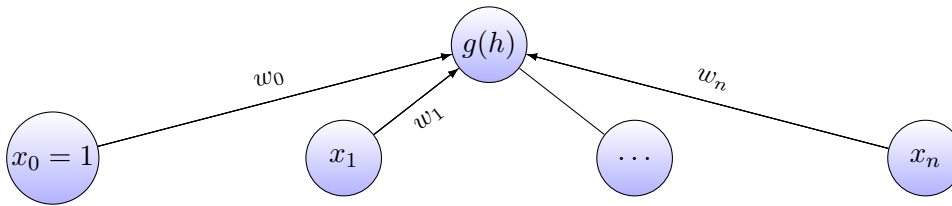
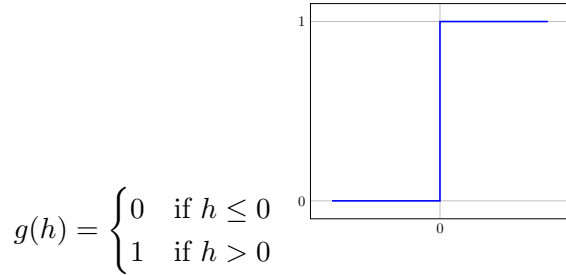


# The evolution of the artificial (computational) neuron

$$h = w_0x_0 + w_1x_1 + \dots + w_nx_n, \quad O = g(h)$$



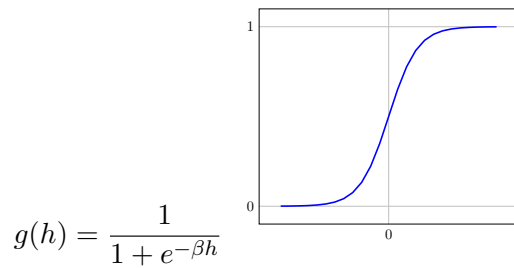
**1943:** McCulloch and Pitts. Pure threshold unit.



**1962:** Rosenblatt. Essentially the same as above.

**1969:** Minsky and Pappert. Essentially same as above.

**1986:** Rumelhart, Hinton, and Williams. Sigmoid. Multiple layers.



**2010:** Nair and Hinton. ReLU (Rectified Linear Unit). Deep learning.

