

Temporal limitation

- One frame is not enough to have temporal information.
- So we stack together to handle that problem (ex: figuring out what direction the ball is going on a pong-game)

Preprocessing frame stats

- To reduce the complexity of our state and the computational time needed for training we preprocess the input.
- For example in an Atari game where each frame is $160 \times 210 \times 3$ (160w, 210h, (r,g,b)) we can downscale the image to $84 \times 84 \times 1$ by downsampling the resolution and making it so the colors are all on gray code.

ambar:

Deep Q-Network

