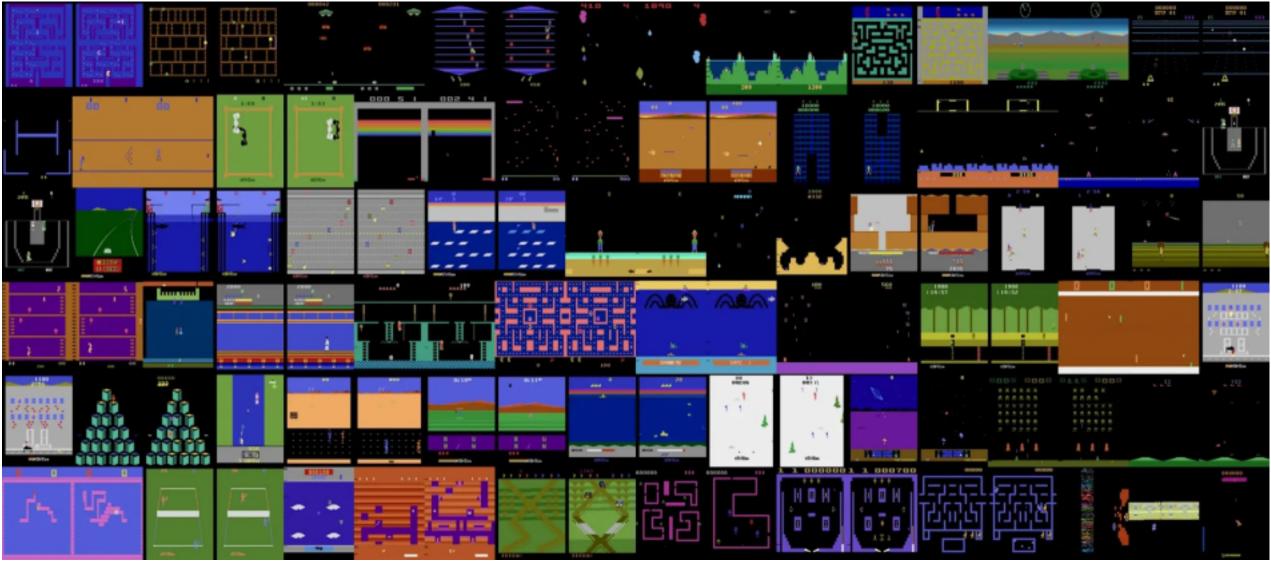
Atari Breakthrough (2013, DeepMind)





























# **Breakout**

# **Assault**

## **Initial performance**

## After 15 mins of training

## After 30 mins of training

## **Initial performance**

## After 15 mins of training

## After 30 mins of training





























# Atari Breakthrough (2013, DeepMind)

## **Breakout**



**Initial performance** 



After 15 mins of training

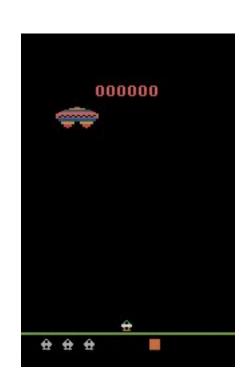


After 30 mins of training

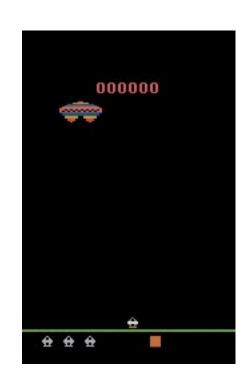
# **Assault**



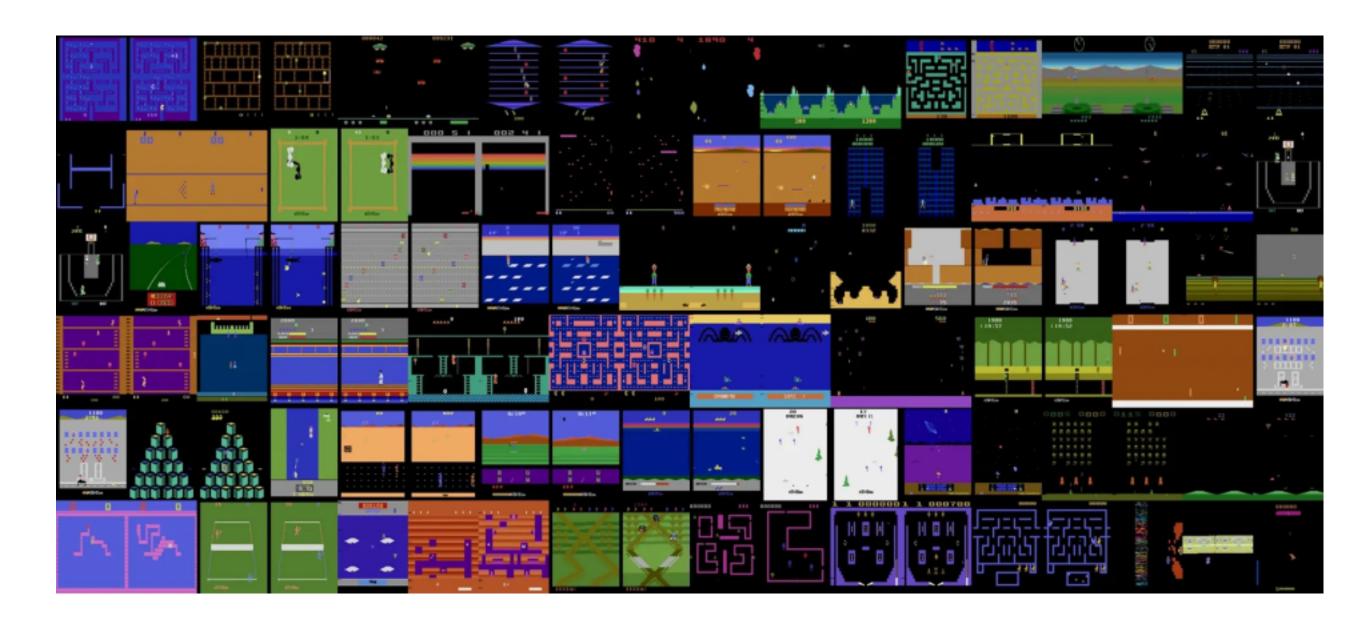
**Initial performance** 



After 15 mins of training



After 30 mins of training



# Alpha-Go (DeepMind, 2015)

Defeated Lee Sedol (widely considered the greatest Go player of the decade) with 4-1 score Discovered new moves!

