

An Affective Agent Architecture

Kevin Raison

Chatsubo Labs, Seattle

Steven Lytinen

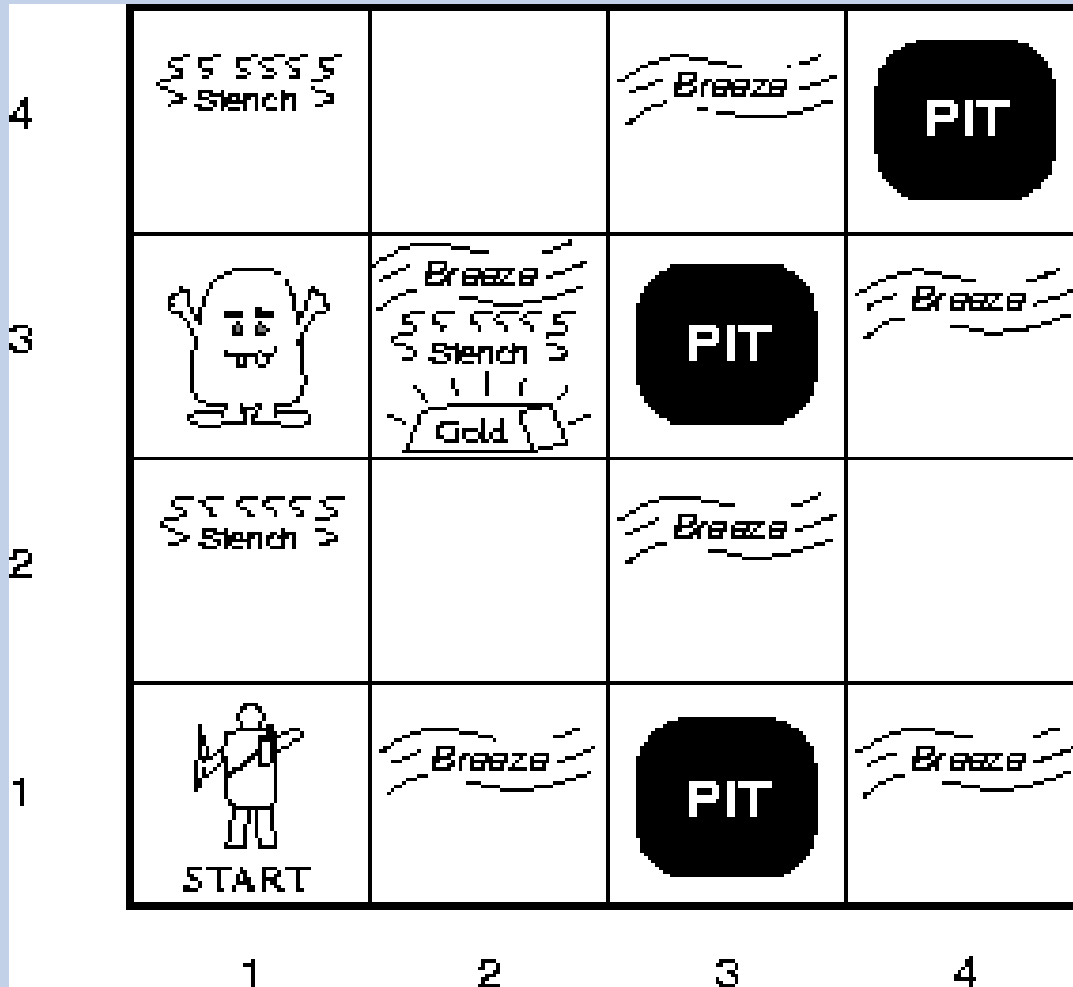
DePaul University, Chicago

Tompkin's (1962) theory of affect

- Drives: Hunger, elimination, bonding, ...
- Positive affects: **Interest, Joy
- Negative affects: **Fear, distress, anger, disgust, shame
- Neutral: Surprise

In short, drives + inputs -> affects -> actions



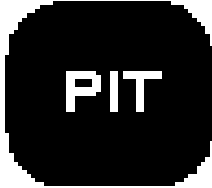








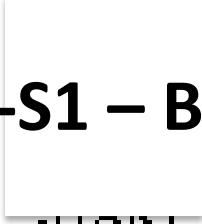



Modified wumpus world



- Food replaces gold
- No shooting
- Agent never leaves
- Senses dissipate
- Drives: hunger, elimination
- Input: smells, breeze
- Affects: interest, fear
- Actions: move toward, turn and run

Reactive Planning

local
maximum
until
hungry

4	 Stench		 Breeze	
3		 Breeze  Stench  Gold		 Breeze
2	 Stench -S2 +F1	+F2 -S1 -B1	 Breeze -B2 +F1	
1	 -S1 - B1	 Breeze -B2 +F1		 Breeze
	1	2	3	4