Rational OpenCog Controlled Agent

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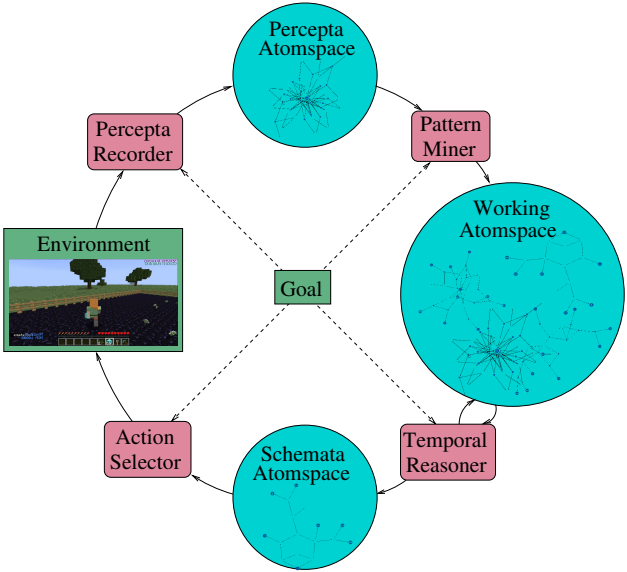
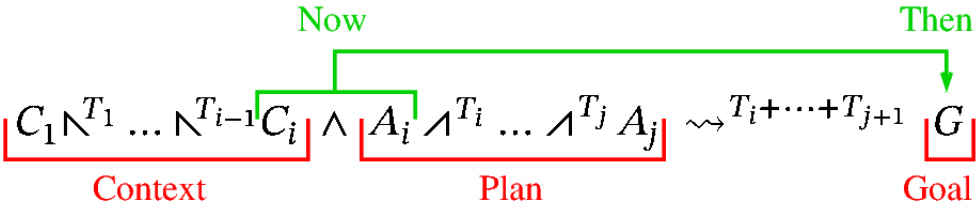
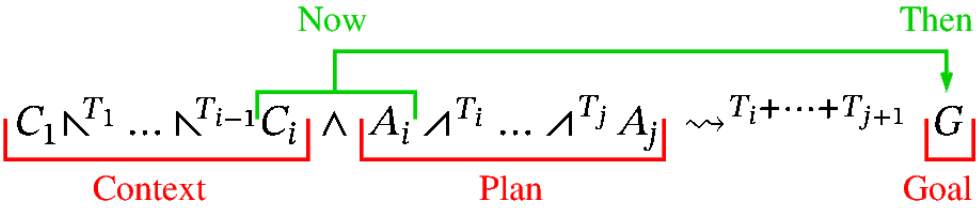
AGI-23

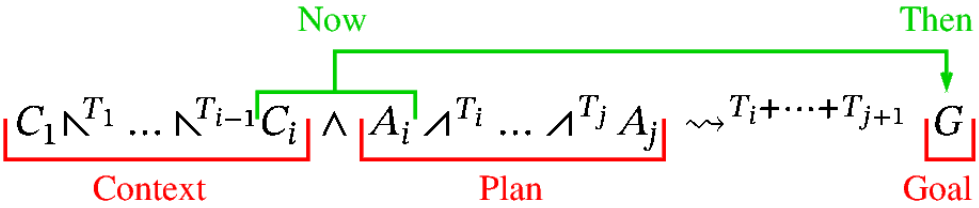

Percepta Atomspace
Pattern Miner
Working Atomspace
Temporal Reasoner
Schemata Atomspace
Action Selector
Environment
Percepta Recorder
Goal

$$C_1 \barwedge^{T_1} \ldots \barwedge^{T_{i-1}} C_i \;\wedge\; A_i \barwedge^{T_i} \ldots \barwedge^{T_j} A_j \;\rightsquigarrow^{T_i + \cdots + T_{j+1}}\; G$$

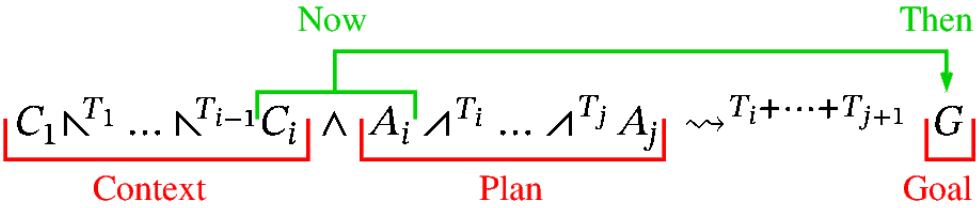

Now
Then
$C_1 \wedge^{T_1} \ldots \wedge^{T_{i-1}} C_i \wedge A_i \nearrow^{T_i} \ldots \nearrow^{T_j} A_j \rightsquigarrow^{T_i+\cdots+T_{j+1}} G$
Context
Plan
Goal



$$\left[C_1 \wedge^{T_1} \ldots \wedge^{T_{i-1}} C_i\right](t) \quad = \quad \textit{True} \mid \textit{False}$$



$$\left[C_1 \wedge^{T_1} \ldots \wedge^{T_{i-1}} C_i\right](t) \quad = \quad \textit{True} \mid \textit{False}$$
$$\mapsto \quad \mathcal{D}ist(Bool)$$



$$\begin{aligned} \left[C_1 \wedge^{T_1} \ldots \wedge^{T_{i-1}} C_i\right](t) &= \mathit{True} \mid \mathit{False} \\ &\mapsto \mathcal{D}ist(Bool) \\ &\mapsto \mathcal{D}ist(\mathcal{D}ist(Bool)) \end{aligned}$$

It is always now

$$C \wedge A_1 \nearrow^{T_1} A_2 \nearrow^{T_2} A_3 \rightsquigarrow^{T_1+T_2+T_3} G$$

$$C \wedge A_1 \nwarrow^{T_1} A_2 \nearrow^{T_2} A_3 \rightsquigarrow^{T_2+T_3} G$$

$$C \wedge A_1 \nwarrow^{T_1} A_2 \nwarrow^{T_2} A_3 \rightsquigarrow^{T_3} G$$

Example of schemata

Collect diamonds

Learning schemata

Balancing exploitation and exploration