Simulated Robot Learning Interactively

 $P(\textit{future}|\textit{state}, \textit{action}) = \frac{1}{P(\textit{state}, \textit{action})} \langle P(\textit{future}|\textit{history}, \textit{action}), P(\textit{action}|\textit{history}), P(\textit{state}|\textit{history}) \rangle_{P(\textit{history})}$

$$P_{opt}(action|history) = \frac{P(action)}{Z_A(history, \mu)} e^{\frac{-1}{\mu}E_A(action, history)}$$

 $\left(P_{opt}(state|history) = \frac{P(state)}{Z_{S}(history, \lambda)} e^{\frac{-1}{\lambda}E_{S}(state, history)} \right)$