

CLAIMS

1. A computer implemented system for animating a virtual object, digital entity or robot, the system including:

a plurality of Modules, each Module being associated with at least one Connector, wherein the Connectors enable flow of information between Modules, and the Modules together provide a neurobehavioural model for animating the virtual object, digital entity or robot,

wherein two or more of the Connectors are associated with:

Modulatory Variables configured to modulate the flow of information between connected Modules; and

Mask Variables configured to override Modulatory Variables.
2. The system of claim 1 further including a Cognitive Modes comprising predefined sets of Mask Variable values configured to set the connectivity of the Neurobehavioural Model.
3. The system of claim 1 wherein the Modulatory Variables are continuous variables having a range, wherein the minimum value of the variable inhibits connectivity and the maximum value forces connectivity.
4. The system of claim 1 wherein the two or more Connectors are associated with a Master Connector Variable capped between a minimum value and a maximum value, and wherein the Master Connector Variable is a function of an associated Modulatory Variable and an associated Mask Variable.
5. The system of claim 4 wherein the function sums the associated Modulatory Variables and the associated Mask Variable.
6. The system of claim 1 wherein Modulatory Variables store dynamically set values, set according to a logical condition.
7. The system of claim 6 wherein dynamically set values are associated with Variables in the neurobehavioural model.
8. The system of claim 1 wherein the Mask Variable are continuous variables having a range, wherein

- a minimum value of the Mask Variable inhibits connectivity of its associated Connector regardless of the associated Modulatory Variables value and the maximum value of the Mask Variable forces connectivity of its associated Connector regardless of the associated Modulatory Variables value.
9. The system of claim 1 wherein Cognitive Modes include one or more of the group comprising: Attentional Modes, Emotional Modes, Language Modes, Behavioural Modes and Learning Modes.
 10. The system of claim 1 wherein at least one of the Modules or Connectors includes is configured to set a Cognitive Mode according to a logical condition.
 11. The system of claim 1 wherein the system supports setting Cognitive Modes in a weighted fashion, wherein each of the Mask Variables of the Cognitive Mode are weighted proportionally to the weighting of the Cognitive Mode.
 12. The system of claim 1 wherein the system supports setting multiple Cognitive Modes, wherein Mask Variables common to the multiple Cognitive Modes are combined.
 13. A computer implemented method of for processing an Episode in an Embodied Agent using a Deictic Routine, including the steps of:
 - defining a prepared sequence of fields corresponding to elements of the Episode;
 - defining a prepared sequence of Deictic Operations using a state machine, wherein:
 - each state of the state machine is configured to trigger one or more Deictic Operations; and
 - at least two states of the state machine are configured to complete fields of the Episode,
 - wherein the set of Deictic Operations include:
 - at least one Mode-Setting Operation;
 - at least one Attentional Operation; and
 - at least one Motor Operation.
 14. The method of claim 13 wherein at least one Mode-Setting Operation available as a Deictic Operation is determined by a preceding Cognitive Mode-Setting Operation triggered in the Deictic Routine.