Millennium Technical Report 9601; University of Sussex Technical Report CSRP434

for synthetic autonomous agents that inhabit a 3D world with realistic kinematics. There is also a large body of work on learning in artificial neural networks (see e.g. Rumelhart and McClelland 1986).

2.2 Other Relevant Entertainment Products

Publications in the scientific literature

through their life. The life-span of each creature is genetically influenced: if a creature manages to survive to old age (measured in game-hours) then senescence genes may become active, killing the creature. The creature has simulated senses of sight, sound, and touch. All are modeled using semi-s

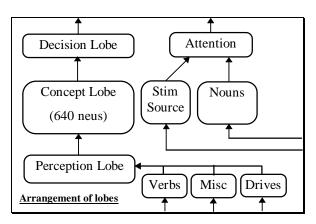


Figure 5: Brain Model

Attention. Some of the neural circuits are devoted to relatively minor tasks. For example, two lobes are used to implement an **a**i

not actually necessary or compulsory within digital organisms, yet which would be expected by the general public. For example a simple metabolic system is simulated based on the following reactions:

starch ⇒

Creatures than when using the other products mentioned in Section 2.2. Furthermore, if we assume that each user runs 5 to 10 creatures at a time, then a