Connectionist model

Psychology

Connectionist Network Model Connectionist network model is a drive in cognitive science that tries to explain abilities using mock neural networks. Neural systems are made up of large number of units in addition with weights that measure the strengths of connections between the units. Alternatively, connectionism can be defined as a set of varying approaches in the fields of cognitive psychology, artificial intelligence, neural science, and philosophy of the mind that models mental or behavioral phenomena as the emergent process of interconnected networks of simple units. This model is sometimes known as Parallel Distributed Processing (PDP) models of networks. Additionally they are referred to as neural networks (NN) or artificial neural networks (ANN). This article assesses the how the learning of a new skill occur based on the connectionist network model and how the connectionist model differs from the modified semantic network model.

The basic components of Connectionist network model are a set of processing networks, a set of modifiable connections between units and a learning procedure. The processing networks are the basic building blocks that form the connectionist system. The units are responsible for performing the processing, which happens within the connection network. The connection network models have no limitation to the number of the connections that a particular unit may have. The units can have weighted connections with themselves. However, the attention is limited to the simple three-layered system.

The exact details, which go on within a particular unit, will depend on the functional subcomponents of the unit. The subcomponents are the input function, the activation function, and the output function. The activation activity of a particular unit determines the internal activity of the unit, which

will vary depending on the input that the unit receives.

Learning is a process that makes the melee presented to an animal’s senses to be organized in accordance to the principles stated above. This determines the animal’s future interactions with the world. According to the gestalt principle of psychology, they identified the principle of perceptual organization to affect animals. The school found out that according to the principle that are presented in close temporal proximity will be grouped in the same group as things that are visually similar to one another. They also noted that the elements of dynamic patterns that have a common fate are also grouped together. This principle reflects the laws of learning from associate psychology.

The perception of anything that is received will vary depending on the quality of information that the receiver is being given. The basic processing units that the receiver has to process the information then determine this. The receiver who has the most processing units will have more information and the resultant perception will be close to what has been described. In the case of cats and dogs, they contain different processing units. This makes them to have a different perception and comprehend information in different manner. The perfectionist then activates the information received. Semantic network model is quite different from the Connectionist network model. A semantic network model is a network that represents the semantic relations between concepts. It is used as a form of knowledge representation. The semantic network model is a directed model or an undirected graph that consists of vericles which represents concepts and edges. This model is used when the subject has knowledge has best understood a set of concepts that

are related to one another unlike the Connectionist network model where the set of concepts are not directly linked to one another.