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Buddhist theory of emotions for expert systems

Expert systems are best in selecting a suitable firing order of rules for answering a question. In naturla human reaction choice of rules in answering a question is subjective. It depends on the emotional status of the two people in interaction. The inability of representing these emotions has created a barrier in making machine interaction with people more natural. This paper presents an approach to represent emotional factors in expert systems.

The Buddhist theory of mind describes that every consciousness (*citta*) arises in human mind is associated with mental factors or emotions (*cethasika*). Abhidhamma groups these factors 52 in quantify, into seven, but only 45 of them are arising on average human being. We categorize them into four groups, viz. Feeling (vedana), perception(sanna), volition (cetana), and volitional activities (sankhara). A tuple of emotions is formed with these four mental states and, it's embedded in the rule base. Initially these values are set arbitrarily and learn the emotional values in usage. Further, since every mentla state divides as pleasurable (sukha) and painful(dukkha), we represent them by+1 and -1, so that all the emotional values fall in between. The neutrality reveals values closer to zero.

The emotions embedded rule base can select the firing order of rules according to the emotional strength of mental factors. Greater the emotional value higher the chance of being fired. But, when the interaction goes on continuously, there is a chance of emerging the mental factors of lesser strength resulting the effect f accumulation, which can be used for conflict resolution in expert systems.