CIS 671: Problem Set No.1
Artificial Intelligence

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1. **Problem 1.2**

   The definitions of AI have been characterized into the dimensions of strong vs weak AI and theoretical results vs practical applications as follows :

   (a) Hangeland, 1985. “The exciting new effort ...” - strong AI, practical applications.
   (b) Bellman, 1978. “The automation of activities ...” - strong AI, practical applications.
   (c) Charniak and Mc Dermott, 1985. “The study of mental ...” - weak AI, theoretical results.
   (d) Winston, 1992. “The study of the computations ...” - weak AI, theoretical results.
   (e) Kurzweil, 1990. “The art of creating ...” - weak AI, practical applications.
   (f) Rich and Knight, 1991. “The study of ...” - weak AI, practical applications.
   (g) Schalkoff, 1990. “A field of study ...” - strong AI, theoretical results.
   (h) Luger and Stubblefield, 1993. “The branch ...” - strong AI, theoretical results.

   The seven other definitions of AI can be classified along the four dimensions as follows:

   (a) Partridge, 1991. “A collection of ...” - weak AI, theoretical results, ideal, thought.
   (b) Ginsberg, 1993. “The enterprise of ...” - weak AI, practical applications, human, action.
   (c) Jackson, 1986. “The field of computer science ...” - strong AI, theoretical, ideal, thought.
   (d) Tanimoto, 1990. “A field of study ...” - weak AI, theoretical results, ideal, thought.
   (e) Sharples et. al, 1989. “A very general ...” - weak AI, theoretical, ideal, thought.

(f) Rowe, 1988. "The getting of computers ..." - weak AI, practical applications, ideal, action.

2. **Problem 2.4**

   While driving a car, the best policy according to me is to always put your directional blinker on before turning. This is a reflex action and it is logical to do this. The alternative (c) or to look into the mirror and use the blinker would be alright if every car that is on the road could be viewed properly using the mirror which is not the case as there could be a vehicle in one's blind spot. So, always turning on the blinkers is a natural reflex action. A logical policy was used to arrive at the reasoning and a reflex kind of an agent design is necessary to carry out the policy.