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K.G.C.E. Karjat - Raigad

AIN Tutorial 1>

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Theony - An AI system is composed of an agent and its environment. The agents act in their environment. An agent is anything that can penceive its environment through sensons and acts upon that environment through effections. This can be seen in figure below. Sensons Remorts Actions An agent in particular can be: Homan agent is as sensor angans such as eyes rose early tangue and skin parallel to the sensons and other angans such as hands leas mouth, for effections Robotic agent replaces camenas t infranced runge findens for the sensons, and various motors and actuations for effections. Software agent has encoded bit strings as its programs and actions. Agent structure can be viewed as a combination of Agent architecture refers to the machinery that an agent executes on wheanas Agent Program is an implementation of an agent function. Simplex Reflex agents choose actions only based	Aim - To undenstand the concept of Agent Abstraction by studying definition of Rational Agent, Agent environment Tosk Environment Rescriptors, Environment types. Theory - An AI system is composed of an agent and its environment. The agents act in their environment. An opent is anything that can penceive its environment through sensons and acts upon that environment through effectors. This can be seen in figure below. Sensons Fencyts Finisemment Ations Ations Repeat agent in particular can be: Human agent is to senson organs such as eyes rose can tangue and skin parallel to the sensons and other organs such as knowledge legs mouth for effectors Robotic agent replaces camenas t infrared numer finders for the sensons and various motors and actuators for effectors. Software agent: has encoded bit strings as its programs and actions Agent structure can be viewed as a combination of Agent original transport of an agent exercises on wheapas Agent Program is an implementation of an agent		051100	\mathcal{L}
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	State or a consistent in finite of the
	Account how its actions in order to achieve goals.
	Good trased some chart the 11's a boson is the records.
	Goal based agents shown the things happen in the world.
	agent since the Knowledge supporting a decesion is
	explicity modeled thereby allowing for modifications.
	The Utility Agent choose actions based on a profenece
	for each state. Utility function objectively map how
	much being in a panticular state is desirable-
	An AI agent is referenced to as Rotai Rotional Agent.
	A notational agent always performs right action
	where the night action means the action that causes
	the agent to be most successful in the given percept
	Sequence. The problem is the agent solves is
	that chanacterized by Performance Measure Environment
by Tarif	He trators, & Sengons (PAS).
	Another important piece of information is tack
1000	envinonment properties. While analyzing task philipannet
4.5% 1	the agent anchitect needs to consider tollowing promise.
	VISCHETE ON CONTINUOUS: If there are a limited humbral
	of distinct, cleanly defined, states of the environment
A	the agents environment is discrete, otherwise it is
	Continuous.
	Observable on Pantially observed: If it is possible to
27 - No. 1 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	determine the complete State of the environment at
	each time point from the precepts it is observable
	else its only pantially obsenvable
	Static on Dynamic: If the environment does not change
	while an agent is acting, then it is static, else dynamic.

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	d)	of the environment is completely determined by the
1	, ,	of the envisionment is completely determined then the
		connent state and the actions of the agent, then the
J. J.	à	environment is deterministic, otherwise it is non-
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	6)	1 1 . T at an animal
	<u>v)</u>	each episade of events consists of the agent perceiving
		and then acting. The quality of its action depends on
		the actions in the previous episodes
9		of the state of th
	<i>f)</i>	Single agent on other agents which may be of the same
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		on different Kind as that of the agent.
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		envinonment, the the envinonment is accessible to that agent.
Working	-	Search internet for AI based applications in following
- VVS		genericus 4 identify who is agent for that apprication
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		animout expected like a list of aunious from
		above list of 7 task environment properties.
		MIVVE 101
10, 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Deep Blue Choss Playing Computer Parogram.
	1 ay	Penformance negsure: Win /Lose/draw, Safety of chess pieces
	7	Safety of King, no of moves, time each move.
		Sufery of miny, we of move, where
		Environment: Chess board, Chess pieces
1		Actuatons: Desktop Screen, CPU.
		Sensons: Chess board.
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b) Eliza the natural language Processing Computer Program -> Penformance measure: Understanding user maintaining conversation Environment: User, Program, Keybound, User text inputs, Eliza texts, output window. Actuators: Texts Sensors: User texts inputs. Tus K environment: Continuous, fully observable, Static, Peterministic, Sequential, Single agent, Accessible c) Sophia is a Social humanoid hobet: -> Renformance measure: Understanding User, Maintaining conversation facial expression, response time: Environment: Human objects. Actuators: Arms mouth, legs, Speaker: Sensors: Eyes (camonus) ears, mic, audio sensors: Task environment: Continuous, Fully observable, Dynamic.	KGCEKGCEKG	CEKGCE	:KGCEKGCEKGCEKGCEKGCEKGCEKGCEKGCEKGCEKGCE
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