Hamza farooq 2020MSCS513

Assignment (1 A)

Q 1. Is brain a digital computer?

- The basic idea of computer model of the mind is that the mind is the program and the brain. the hardware of a computational system.
- A slogan one often sees is: "the mind is to the brain as the program is to the hardware."
- The problem of the semantics is: How do these sentences in the head get their meanings? But that question can be dissecused discussed independentally of the question: How does the brain works in processing these sentences? A typical answer to that latter question is: The brain works as a digital computer performing computational operations over the syntactical structure of sentences

in the head.

• If we are to suppose that the brain is the digital computer, we still faced with the question "And who is the user?" Typical homunculus question in cognitive science are such as the following: "How does the visual system compute shape from shading; how does it compute object distance from size of retinal image?" A parallel question would be, "How do nails compute the distance they are to travel in the board from the impact of the hammer and the destiny of the wood?" And the answer is the same in both sorts of case: If we are talking about how the system works intrinsically neither nails nor visual systems compute anything.

• What is wrong with that? Doesn't it sound like a perfectly legitimate scientific research program? We know that the commercial computer's conversion of input to output is explained by a program, and in the brain, we

discover the same program, we have a causal explanation.

Q2. Mind body problem.

The mind body problem is a debate concerning the relationship between thought and consciousness in the human mind, and the brain as part of the physical body. It is distinct from the question of how mind and body function chemically and physiologically as the question presupposes an interactionist account of mind-body relations. This question arises when mind and body are considered as distinct, based on the premise that the mind and the body are fundamentally different in nature.

Q3. AlphaGo learning

True motor intelligence requires learning how to control and coordinate

a flexible body to solve tasks in a range of complex environments. Existing attempts to control physically simulated humanoid bodies come from diverse fields, including computer animation and biomechanics. A trend has been to use hand-crafted objectives, sometimes with motion capture data, to produce specific behaviors. However, this may require considerable engineering effort, and can result in restricted behaviors of behaviors that may be difficult to repurpose for new tasks.