CS 395 HOMEWORK 8

Due: 4/15/19 (Monday)

Read the chapter "Will Robots Take All Our Jobs?" from the book The Fourth Age: Smart Robots, Conscious Computers and the Future of Humanity by Byron Reese. **A pdf copy has been uploaded to Canvas. Warning -- it's 38 pages long!**

Let me introduce some terminology before you read the chapter. Reese defines AI (Artificial Intelligence) on page 60 of the book as "technology that reacts to data or its environment. A more strenuous definition is that it is a technology that learns from its environment." A thermostat that learns the temperature you prefer for your room is an example of the latter definition. But there are two completely different notions of AI when we people use the term "AI". There is "narrow AI" and then there is "general AI", often referred to as artificial general intelligence or AGI for short. On page 61 of the book, Reese distinguishes the two kinds of AI. Narrow AI is what we hear about -- it is "the ability for a computer to solve a specific kind of problem or perform a specific task" -- e.g. recognize faces, play chess, etc. AGI, on the other hand, is an artificial intelligence that is as smart as people. "AGI does not currently exist, nor is there agreement on how to build it -- or even if it is possible."

Questions --

1. Reese notes that there are three possible scenarios for how robots can affect jobs. Which of the three scenarios do you think is the likeliest? Why?

2. Based on question #1, you rejected two other scenarios. What were their weaknesses? For example, what assumptions in his argument do you disagree with? Why?

3. Reese makes some controversial statements in this chapter. On page 99, he says "Consider any job that can, in theory, be done by a machine. If you make a human being do that job, then that is literally "dehumanizing." There's nothing about that job that takes advantage of that person's being a human being. It's the worst possible work you can give anybody, to say, "You are just a stand-in until we build a machine to do this." Do you agree or disagree with this statement? Are their jobs out there that you or others might like to do even if, technically, a machine can do the same job? Is it "dehumanizing"?

4. Write down one other statement/paragraph/idea that you find controversial and state why you found it controversial.

5. Did Reese change your mind about the effects of AI on work? If so, how? If not, why not?