

Artificial Intelligence - homework 1

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In my opinion, one of the basic rationale behind AI research is to free humanity from boring, repetitive or generally not appealing tasks, to make machines do the dirty work.

The most easy-to-understand examples are perhaps home appliances, like an intelligent vacuum cleaner, that operates automatically. Or we could imagine a washing machine that is able to determine what kind of clothes exactly are loaded into it (perhaps by reading barcodes on them) and adjusting the washing program accordingly. Fridges, ovens, TVs - almost every thing in our homes could be made "intelligent". One example of such a house was an "electronic house" concept introduced in UK a few years ago. A truly horrifying description of a similar house was given by Ray Bradbury in his "Martian Chronicles" novel. Indeed, science fiction often anticipates developments in real life.

Then come the intelligent transportation systems. Again we can turn to fiction for ideas - the driverless taxi is one example - I remember reading about that in a book for kids when I was five years old! And in fact, the driverless subway system was introduced in Lyons recently.

Another area is production and construction, where many tasks could be carried out by robots. This however requires significant advancements in perception systems - we won't be seeing a whole house constructed by robots anytime soon.

One huge area where advantages given by AI are clearly seen today is intelligent information systems. One example of such a system that everyone knows is Google search engine. Indeed, the way it ranks pages so that the most relevant ones come out on top could be called intelligent. And then there are expert systems that aid people in the process of decision making - they can even give explanations for their suggestions.

What is the impact of AI on the human society? Apart from all other benefits the most important one is that it lets us, the humans, dedicate less time to things that don't require much thought, just persistence, and dedicate

more time to actual creative work - the work that computers probably will never be able to do. However, will there still be enough jobs for everyone, when humans will be replaced by robots at workplaces? This is a difficult question, but as we see from the history there's no reason to worry. Technical progress does not reduce the numbers of jobs, but rather makes the job qualifications higher. And a better educated society can only be a good thing.