Effects of ai on humanity essay

Artificial intelligence is the science of making the machine act intelligently.

AI has been developed gradually until it became a part of our daily lives. There are increasable numbers of AI applications like games, identification, and GPS…etc. However, the top of AI does not become applicable yet. There are positive and negative impacts of AI on humanity.

The paper discusses each of these impacts. After that, the paper argues that the future of AI is still ambiguous. Artificial intelligence is a very wide part of computer science. Many scientists tried to define artificial intelligence. According to Nilsson (1998), " AI is concerned with intelligent behavior in artifacts" (p.).

This definition is still ambiguous, because artifacts themselves are not able to be intelligent. Kurzweil (1990) has argued the concept of artificial intelligence. According to him, AI is the art of creating machines that perform functions that require intelligence when performed by people. With this definition, the idea behind artificial intelligence becomes clearer.

Anyway the concept of AI is not stable, because it depends on the field that is concerned in it. 2. Historical Background According to Russel and Norving (2003), the birth of artificial intelligence was in 1956. The most famous name that is usually combined with the beginning of AI is Alan Turing.

Turing was a mathematician, born in 1912. He put the first theory about AI. It was called Turing test. Russel and Norving (2003) clarify Turing test in their book, the Turing test that is proposed by Alan Turing in 1950, was designed

to simulate the concept of artificial intelligence. Turing suggested a test to be operated on the computer.

The computer passes the test if a human does an oral conversation with this computer for a while, and cannot tell whether he was talking with a computer or with a human being. This test was the first mention of AI in history. And it is still unsolved until now. 3. Developments After Turing test, AI began to grow up as computer science was developing.

A scientist named Dermott made the first intelligent system. According to Dermott (1982), the first successful commercial expert system, R1, began operation at the digital equipment corporation in 1978. Later on, the concept of AI became more concrete in computer applications. According to Russel and Norving (2003), AI becomes a science in 1987.

And the emergence of intelligent agents was in 1995. One of the most important environments for intelligent agents is the Internet. AI systems have become so common in web-based applications that the "-bot" suffix has entered everyday language. Moreover, AI technologies underlie many Internet tools, such as search engines, recommender systems, and Web site construction systems. In the last five years, wide jumps have been made in the AI domain.

And a lot of the old theories about AI became almost solvable. 4. AI Applications As is mentioned above, AI is a wide science. So its applications are varied.

Recently, most advanced computer applications have an additional layer which is AI. According to Russel and Norving (2003), General Problem Solver ' GPS' is one of the early successful applications of AI. It was designed from the start to imitate human problem-solving protocols. One of the common applications of AI is game playing. McCarthy (2007) reported the relation between AI and chess computer game, " You can buy machines that can play master level chess for a few hundred dollars.

There is some AI in them, but they play well against people mainly through brute force computation, looking at hundreds of thousands of positions. To beat a world champion by brute force and known reliable heuristics requires being able to look at 200 million positions per second" (para. 4). By thinking deeply of Turing test which was the first concept about AI, it can be noted that solving that test needs solving many sub problems. Like understanding natural language, knowledge representation to store what is known or heard, and machine learning to acquire new information that might be offered during the conversation…etc.

Computer scientists are trying to solve each of these problems individually. McCarthy (2007) argued ' understanding natural language' as an AI application, " Just getting a sequence of words into a computer is not enough. Parsing sentences is not enough either. The computer has to be provided with an understanding of the domain the text is about, and this is presently possible only for very limited domains. " (para.

6). 5. The effects of AI Most sciences have a mutual goal which is raising the quality of the human's life. Nevertheless, they have bad effects that cannot

be avoided. For example, car invention is a great step in the development of humanity.

But also it became one of the major reasons of people dying. Artificial intelligence like other sciences has bad effects on humanity. Moreover, this bad effect is still ambiguous because AI is still in the developing stage. According to Yudkowsky (2006), Artificial Intelligence is one of the global risks. But it distinguishes that its risk cannot be measured accurately like Physics risks for example.

And this makes AI catastrophes more worrisome, not less. The next sessions will discuss the probable effects of AI on humanity, and on the world. 6. 1 AdvantagesArtificial Intelligence has clear positive effects on humanity. One of the popular AI fields is robotics. The aim of this field is to manufacture a robot that can imitate the human.

One of its applications is ' home servant'. It is easy to imagine the benefits that can be gotten by the human from this invention. Many undesired duties that must be done by the human can now be done by the robot. The ability of AI to improve the human's live is undetermined. " We can expect that medium-level successes in AI would affect all kinds of people in their daily lives. So far, computerized communication networks, such as cell phones and the internet, have had this kind of pervasive effect on society.

But AI has not. We can imagine that truly useful personal assistants for the office or the home would have a large positive impact on people's lives. " (Russel & Norving, 2003, p. 974).

6. 2 The role of AI in human's life Artificial Intelligence entered the human's life in many domains. This intervention can be either positive or negative. According to Yudkowsky (2006), AI can develop new medical technologies capable of saving millions of human lives.

Therefore we should build AI. At the same time Yudkowsky (2006) shows the covered risk of AI on the human being, " A sufficiently powerful artificial intelligence could overwhelm any human resistance and wipe out humanity. [And the AI would decide to do so.] Therefore we should not build AI. " (p.

9). It is not easy to realize the bad effect of AI on the human's life, because humanity now is pretty far from the red line of the AI development. Russel and Norving (2003) has argued the danger of AI on the human's life, people might lose their sense of being unique, some of their privacy rights, and their jobs to automation. The use of AI systems might result in a loss of accountability. The success of AI might mean the end of the human race. The bad effect of AI on the human's life can be simpler because AI touches most domains of the human's life.

According to Oak (2008), " If robots start replacing human resources in every field, we will have to deal with serious issues like unemployment in turn leading to mental depression, poverty and crime in the society. Human beings deprived of their work life may not find any means to channelize their energies and harness their expertise. Human beings will be left with empty time. (para. 2). 6.

3 The psychological effects of AI The most important and precious part of the human being is the mind. The effects of AI can reach the human's mind. The

top of AI is when the difference between the human and the machine does not exist. When the human feels that there is no need to think, he quits developing himself, then, he starts to lose the meaning of his life.

Oak (2008) argued this point, human being may be affected negatively by intelligent machines. Machines may enslave human beings and start ruling the world. They may take over human intellect. AI can affect the social life of the human. A lot of technology could cool the human's feelings, so he becomes far from people around.

" Weak AI tends to create concern with respect to its role as a tool for human interaction, throwing up issues of responsibility, privacy and trust. " (Arnal, 2003, p. 59). 6. 4 The effects of AI on the world The important question is: can the top of AI affect the world? Answering this question is so difficult, because all current hypotheses are still on white papers.

One of AI domains that have no applications yet is Neural Systems or NS. NS objective is manufacturing an electronic machine that has the structure of the human's brain. In other words, NS objective is making a brain using inorganic materials. Obviously, this objective seems to be impossible. However a partial success can be considered a revolution.

The ' learning' feature of the machine is considered a source of danger. According to Yudkowsky (2006), From the standpoint of existential risk, one of the most critical points about Artificial Intelligence is that an Artificial Intelligence might increase in intelligence extremely fast. The obvious reason to suspect this possibility is recursive self-improvement. (Good 1965.) The AI becomes smarter, including becoming smarter at the task of writing the

internal cognitive functions of an AI, so the AI can rewrite its existing cognitive functions to work even better, which makes the AI still smarter, including smarter at the task of rewriting itself, so that it makes yet more improvements. (p.

17). 6. 5 The future of AI and its effects on humanity It is clear that there are some applications that will be improved because of AI. However, the bad side of AI is still unshaped. According to Russel and Norving (2003), " which way will the future go? Science fiction authors seem to favor dystopian futures over utopian ones, probably because they make for more interesting plots. But so far, AI seems to fit in with other revolutionary technologies (printing, plumbing, air travel, telephony) whose negative repercussions are outweighed by their positive aspects.

" (p. 975). Artificial Intelligence can change the life style of the human positively or negatively. The volume of the change is measured by the volume of the development.

In this point, Russel and Norving (2003) reported, " Finally, it seems likely that a large-scale success in AI, the creation of human-level intelligence and beyond, would change the lives of a majority of humankind. " (p. 975) 6. Conclusion Artificial Intelligence has direct and indirect effects on humanity.

The intelligence is the most significant feature that the human has. Creating intelligent machines will prejudice this feature. So the reflection of the human and his way of dealing with this fact will be effective.