Major : Computer Engineering

R**esearch Question:** What are the positive impacts of artificial intelligence?

Aim: Focusing on the various uses and applications of this domain. The paper also tackles the development which these robots and machines will witness in the next following years.

Type of Focus: Advantages of artificial intelligence

Introduction: Type your introduction (including the thesis statement) in the space below.

Where can we apply artificial intelligence? How can we use it? What are its applications? How are robots going to look like in the future? Before answering all these questions, it is a must to know the meaning of such term. According to the definition mentioned by Haugeland 1985, artificial intelligence is "The exciting new effort to make computers think, machines with minds, in the full and literal sense" (Russell, 1995). In other words, artificial intelligence is considered as one of the branches of computer engineering. It is specialized in the improvement and development of computers so that they could be able to act like humans but in more efficient, easy and quick way without committing any errors, though mistakes are unavoidable. Some people think that robots and machines would exceed humans in their intelligence and turn to become hostile species. On the contrary, others believe that they have a huge importance in many domains such as industry and medicine. Between the two opinions, a third party does not have any idea about the future of this sub-field of computer engineering. Artificial intelligence plays a huge role in decreasing errors, help people with difficult tasks and improve different types of transportation.

Main Points:

- **I.** Decreasing the amount of mistakes that humans might make
  - **A.** Conduct many operations and surgeries without errors
    - **i.** The videos provided by machines allow a perfect awareness of the slightest problems inside the human's anatomy (Luo, Reichl, Mirota, & Soper, 2014)
    - **ii.** Response: decreasing the rate of complications in surgeries

B. The ability to arrive high levels of accuracy in the least amount of time without causing any problems

i. high level of accuracy in diagnosis of prostate cancer (Miladinović, Mihailović, Mladenović , Duka., Živković, Mladenović & Šubarić , 2017).

ii. The ability of making decisions on whether to go with a surgical approach or a non surgical treatment (Miladinović, Mihailović, Mladenović , Duka., Živković, Mladenović & Šubarić , 2017).

iii. *Response:* help avoid risky surgeries

II. Aiding in difficult types of discovery

A. Satellite

i. Satellite systems are accurate timing devices that enable officers of the law to dictate a person's position (Madry, 2015)

ii. *Response*: aid officers of the law in catching criminals where ever they are

B. Discovering unknown Information in cases

i. Classification systems in law enforcement (Buscema, M., & Tastle, W.,2013)

ii. *Response:* help law enforcement officers to understand their suspects

III. The development of different means of transportation

A. Self driving cars

i. A delayed software response of as little as one tenth of a second is likely to be hazardous in traffic (Shladover, S. E. ,2016)

ii. Response: seniors are allowed to drive even though they might experience delayed responses by more than tenth of a second, a software delayed by tenth of a second hold much less risk for the driver and others on the road

iii. Decreasing traffic

iv. *Response:* the reason for traffic is the behavior of some drivers who do not space out or drive within the speeding limit

B. GPS Navigation systems

i. google map

ii. *Response:* help reach the desired destination without any complications

Refrences:

Buscema, M., & Tastle, W. (2013). *Intelligent data mining in law enforcement analytics (1st ed.). Dordrecht: Springer Netherlands*. [ebrary vision] Retrieved from https://mylibrary.qu.edu.qa/

Hammond, K. (2015). *What is artificial intelligence?* Retrieved from http://www.computerworld.com/article/2906336/emerging-technology/what-is-artificial-intelligence.html

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Russell, S. J. (1995). *Artificial intelligence: a modern approach. new jersey: prentice-*hall, inc. Retrieved from http://stpk.cs.rtu.lv/sites/all/files/stpk/materiali/mi/artificial%20intelligence%20a%20modern%20approach.pdf

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