Drones and Artificial Intellegence

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**Introduction**

Until a few years back, a drone was seen as a sophisticated gadget used to record videos, take pictures aerially. However, with the technology industry moving towards artificial intelligence, drones have been employed for various purposes. Artificial intelligence is a highly sophisticated language that enables computers, robots, and gadgets to perform different tasks with the intelligence commonly associated with only humans. Additionally, Artificial intelligence has made possible for machines to learn from experiences and adapt themselves to any new input. There is a broad spectrum of machines and devices that artificial intelligence has evolved. There have been simplest applications of artificial intelligence in the form of computers playing chess like a human to highly sophisticated autonomous cars taking on the roads aiming to achieve sustainable development and a healthier environment. The drones powered by artificial intelligence also lies somewhere in that spectrum near to upper limit. The drones equipped with artificial intelligence have been employed to assist farmers, help construction workers, aid petroleum engineers, and support law enforcement and militaries in surveillance. The possibilities are endless as far as drone equipped with artificial intelligence is concerned.

**Discussion**

Ever since early childhood, sophisticated gadgets have fascinated me to a great extent. I always thought should mankind be ever capable enough to create gadgets that would function on their own and interact with us in the same way as humans always do. I did not know that this would be achieved at such a rapid pace. Based on this motivation solely, this paper focuses research on drones and artificial intelligence. I am sure this research would somewhat satisfy my insatiable desire to seek emerging technological trends.

Artificial intelligence based drones have taken over a number of industries in just a matter of a few years. AI based drones have redefined how these industries previously functioned. The artificial intelligence based drones have been designed to be used for commercial and military purposes as well as custom-built to address specific needs. The artificial intelligence powered drones are a mix of artificial intelligence technology and highly complex, yet sophisticated and aesthetically pleasing hardware that enable them to perform their functions without much hassle. Many companies have developed softwares that assist users of these drones to integrate various other hardware components. Although the underlying hardware mechanism remains unchanged, night vision cameras, smoke detectors, facial recognition cameras, and weather sensors can be easily mounted and made to work with a couple of clicks in the softwares built to aid users of these drones. AiRFLOW is a company that specializes in artificially intelligent drones. AiRFLOW has developed a software that is named ALiSA that primarily serves as an assistant and a monitoring unit when a drone is airborne. Like AiRFLOW, numerous companies are working hard to assist mankind by employing artificial intelligence based drones to use. According to numerous appraisal reports, the market of artificial intelligence based drones has great potential. Since drones could and most certainly would substitute conventional methods of operations and transportation, the Federal Aviation Administration has permitted artificial intelligence based drone manufacturers to expand their businesses and seek new opportunities. This is a welcome decision that would certainly encourage investors to invest their fortune in this still nascent market. According to various reports, the artificial intelligence based drone had a market potential of $2.8 billion in 2016, which it attained easily. Now, many experts and investors are aiming to take this industry well beyond $100 billion mark.

**Benefits and Ethical issues and limitations regarding artificial intelligence based drones**

The benefits of artificial intelligence based drones are endless. For starters, take an example of engineers scanning a piece of land on which they intend to make high rise infrastructure and map their findings on software afterward. The process concluded in days. Now consider artificial intelligence based drone doing the same work. With the drones, it would be a matter of minutes to do the needful. Moreover, amid the long-festering issue of climate change, organizations have envisioned smart cities that would not only be sustainable but also help to tackle environmental issues. The possibilities are endless about what drones would be able to perform in these cities. For instance, drones could be employed to transport blood lowering the wait for carrying out transfusion. Artificial intelligence based drones have been used in entertainment, industrial infrastructure, farming, and military and defense purposes along with the aforementioned usages (Stahl, 2011).

Ethical issues also entail with the use of artificial intelligence based drones (Pustovrh & Mali, 2014). Of all the issues, one major ethical issue doing rounds on the media is surveillance and spying against one's will and consent. Human rights organizations have always come forward and put up a strong resistance against the commercial use of artificial intelligence based drones (Mali, 2012). The concerns of these organizations are valid. However, these can be addressed. Authorities must bring to the table the manufacturers of artificial intelligence based drones and representative from human rights organizations to formulate a robust strategy on the usage of drone for commercial use (Mali, 2012). Additionally, authorities must impose measure to make manufacturers compliant of existing data protection laws should a convergence is reached over the extent of industrial usage of drones (Mali, 2012).

The limitations of artificial intelligence based drones have always been simmering just below the surface of its wide range of applications and usages (Brey & E, 2012). An important question asked by the analysts is that what would be the outcome should these drones use their cognitive skills and carried out acts malevolent towards mankind. This question is hard to answer considering the ability of artificial intelligence based devices to evolve and adapt accordingly, making them hard to predict.

**Conclusion**

Artificial intelligence has enabled drones to perform a wide range of functions. However, to fully achieve the potential of this nascent market, ethical issues must be addressed before it is too late. Additionally, there are limitations to artificial intelligence based devices because of their unpredictability.

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