Artificial Intelligence and Robotics

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**Research Problem Statement**

The technological advancement has changed the world and its mechanic has enhanced the functioning of the world. The initiation of artificial intelligence is one of the chief components of scientific progression and it helped in improving the productivity and efficiency of various daily life tasks. The big firms are investing in artificial intelligence for improving their productivity and efficiency, and its demand will increase more in the future. There is a need for integrating such advancement in technology because survival in the competitive environment will become almost impossible in the near future. However, the identification of threats and issues related to the implementation of artificial intelligence cannot be ignored. For instance integration of artificial intelligence will replace many manual jobs that will increase the problem of unemployment. The adoption of technology and robotics will allow humans to use them for performing functions of the organization. Whereas, the adoption of technology and robotics will allow humans to use for performing functions of the organization, so it is contributing to the growth of the organization and its employees. Therefore, the impact of artificial intelligence is positively and also adversely affecting the lives of the people. They are now in need of the technological ease which is provided in the form of advancement through incorporating artificial intelligence into the functions of machinery on the domestic or organizational level, regardless of the repercussions it imposes on the mental, physical and social wellbeing of the society. This research will explore and analyze various positive and negative aspects of artificial intelligence which impact or influence the working and functioning of the world, especially the advancement in robot manufacturing due to artificial intelligence.

**Literature Review**

During the rise of the technological era in the 21st century the artificial intelligence has become significantly the section for exploration in virtually the entire fields of the modern world. This field has grown to an enormous extent that it is has made it difficult for keeping the track of proliferation of studies. There are various types of studies conducted on the growth or development of artificial intelligence in the field of science and technology. Although, many studies have researched the integration of artificial intelligence in robotics, which has created serious scientific, social and ethical consideration with regard to the advancement in this field of science.

**Overview and Identification**

Robotics is the subfield of artificial intelligence and it is composed chiefly of computer science and electrical engineering for the construction, application and designing of robots. These robots have made a level of progression in producing a robot which works with the help of artificial intelligence with increasing effectivity than humans (Atkinson, 2018). The elements of intellectual abilities can be replaced by the mechanics used in the form of artificial intelligence. Artificial intelligence is a part of science, which bargains with helping machines discover answers for complex issues in a progressively human-like style (Song, Zhang, & Zhu, 2018). This, for the most part, includes nerve racking attributes from the human insight and applying them as calculations in a computerized manner (Dobrescu, & Dobrescu, 2018). Artificial intelligence is by and large connected with Computer Science, yet it has numerous significant connections with different fields, for example, Math, Brain science, Cognition, Biology and Philosophy, among numerous others. The Potential utilization of Artificial Knowledge is interminable. They extend from the military for self-sufficient control and target distinguishing proof, to the media outlet for PC amusements and mechanical pets.

Furthermore, a robot is a machine that accumulates data about its condition (detects) and utilizes that data (considers) to adhere to directions and to do work (acts). A robot is an

electromechanical or bio-mechanical gadget or gathering of gadgets that can perform tedious or preprogrammed assignments. A robot May act under the immediate control of a human, for example, the arm on a space transport, or under the control of a modified PC (Atkinson, 2018). Robots are being intended to perform exactness medical procedure, investigate space, the sea, and different hazardous regions.

**Positive Aspects**

Understood precedents from the field of mechanical autonomy and AI are the purported 'shrewd industrial facilities', driverless autos, conveyance automatons or 3D printers, which, in view of a singular layout, can create profoundly complex things without changes in the creation procedure or human activity in any structure being essential. Surely understood administration models are, for instance, organizing stages like Facebook or then again Amazon Mechanical Turk, the economy-on-request suppliers Uber and Airbnb, or then again sharing administrations, for example, vehicle sharing, Spotify and Netflix. Studies demonstrate that simply because of sharing administrations the turnover of the area will become twentyfold inside the following ten years (Dobrescu, & Dobrescu, 2018). The old industry gained ground by utilizing economies of scale in a situation of mass generations, however, the new data economy lives on systems administration impacts, driving to more syndications.

A self-ruling computer system is not reliant upon outer elements implying that it works dependably and always, day in and day out, and it can work in threat zones, generally speaking, its exactness is more noteworthy than that of a human, and it can't be occupied either by exhaustion or by other outside circumstances. Work can be institutionalized and synchronized to a more noteworthy degree, bringing about an improvement in productivity and superior control of execution and that's only the tip of the iceberg straightforwardness in the organization. In the basic leadership process, self-ruling frameworks can be guided by target principles, so choices can be made dispassionately, based on certainties. Profitability gains have so far dependably driven to an improvement of living conditions for everyone (Pham et al., 2018).

**Adverse Implications**

Robots, similar to any machines presented into the creation procedure, effectively affect the specialists. On the one hand, they can dispose of some cruel, undesirable, or hazardous assignments. Then again, unequivocally since robots can consequently play out certain assignments, they render the laborers who recently played out those errands "excess" for generation forms. This has various antagonistic impacts for specialists (King, Hammond, & Harrington, 2017). such innovative cutbacks and their unfavorable impacts on the lives of the concerned specialists appear to be inescapable. Undoubtedly, when the administration of an organization considers presenting robots, its central concern isn't whether the robots depend on an extravagant new innovation or whether they will improve laborers' welfare; it is a benefit. In this see, keeping excess laborers essentially does not bode well. Also, according to King and his peer's laborers who hold their employments nearby robots may not continuously observe their working conditions improve. because of the quick advancement of apply autonomy and AI innovations previously hardly any years, the point of view of a jobless society, in which all work is performed by robots and no employment is left for people, has started to catch significant consideration from the overall population (Pham et al., 2018).

**Challenges due to Artificial Intelligence**

Mechanical technology and mechanization convey the brilliant guarantee of freeing humankind from work. In a perfect society, the greater part of the monotonous, undesirable, and interesting work would be satisfied by robots, while people would spend a restricted measure of time each day on work (counting choosing what the robots ought to do) and the remainder of the time on innovative exercises. All the more by and large, financial, political, and asset imperatives ought to be painstakingly thought about while rising advances are sent in light of the fact that there is a potential for unintended results, for example, tilting financial and control structures to unduly profit certain portions of society, bringing about new holes or potentially fueling existing disparities (Pham et al., 2018). There are time-delicate difficulties as to creating countries, with their conceivably low-innovation homeroom driven educational program, can be given with the specialized mastery that would take into consideration the presentation and retention of these front line advancements.

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