

On the of the Use of Artificial Intelligence in Entrepreneurship – Antecedents and Implications:

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ABSTRACT

This study examined the merits and demerits of artificial intelligence in entrepreneurship. The study considered the field of AI as the science and engineering of making intelligent machines which are used in place of human brain. From the study, artificial intelligence has found its way into agriculture, medicine, manufacturing, among others. The findings revealed that in healthcare, AI has been prominent in diagnostics, surgeries, pharmaceuticals, drug discovery, etc. In agriculture, it has assisted in crop harvesting and indoor production while transportation covered autonomous vehicle like trucking, haulage and drones. AI has also impacted marketing which includes digital marketing, tracking customers and employees performances. Some of the identified merits are reduction of error chances to almost zero during production, carryout laborious and painful tasks, time consuming and repetitive tasks are easily handled by intelligent machines. AI can work tirelessly without sleeping, resting because they are never bored. However, the disadvantages of AI covered high cost of purchasing, maintenance and repairing; though they can store enormous amounts of data, storage, access and retrieval of the data not as effective as the human brain; AI cannot know when to do otherwise they cannot act outside the installed programmes and therefore they can cause massive destruction. Using AI in place of humans can worsen the unemployment situation and engaging in manufacturing intelligent machines can negate ethics and moral values.

Keywords: Artificial Intelligence, Entrepreneurship, Antecedents, Merits, Demerits, Healthcare, Digitization

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1. INTRODUCTION

Artificial Intelligence (AI) is the science and engineering of making intelligent machines, especially intelligent computer programmes (John McCarthy, 1956). Other names proposed for AI are computational intelligence, synthetic intelligence and computational rationality. AI can also be described as robots, intelligent machines, algorithms, etc. Artificial intelligence is a way of making a computer, a computer controlled robot, or a software think intelligently in the similar manner the intelligent human thinks (John. McCarthy, 1956). The philosophy of AI is based on the curiosity of humans with respect to the exploitation of the power of the computer systems. It is interesting to wonder if the machine can think and behave as humans do. Hence, the development of AI commenced by intentionally creating similar intelligence in machines, designing machines that can think which are equally available in humans with the intention to introduce AI to entrepreneurship
What is Entrepreneurship?

According to Say (1824) and Schoof (2006) Entrepreneurship is a major catalyst that drives the economy of most nations. It is also the engine that produces the introduction of new approaches in business and the market place (Wood, 2005; Olatunji; 2010). It is widely acknowledged that entrepreneurship guarantees job and wealth creation as well as enhancing economic returns from diverse forms of activities of nations. Entrepreneurship is the vehicle of innovation which is the application of knowledge in production activities (Ubom, 2003). Entrepreneurs are considered as “Champions” especially for converting raw materials into products and services that essentially create wealth and reduce unemployment. They are individuals who own, organize and manage businesses and, in so doing, assume the risk of either making profits or losing the investments. Entrepreneurship covers such fields as agriculture, agricultural processing, medicine, all manufacturing endeavours for the production of goods and rendering of services, transportation, among others.

1.2 Main focus of the paper

Just as the topic implies, the paper aims at examining the advantages and disadvantages of artificial intelligence (AI) with respect to entrepreneurship. The fact that AI has come to stay is undisputable and its importance to entrepreneurship should be identified. It is also vital not to overlook its demerits but an entrepreneur taking advantage of AI should guide against the constraint that can emerge while using AI in entrepreneurial activities.

2. METHODOLOGY

Secondary data were obtained from various publications on artificial intelligence and entrepreneurship. The Methodology also covered searching online materials, using the word artificial intelligence and its effects on entrepreneurship and whether the effects are negative or positive.

3. DISCUSSION

Artificial Intelligence and Entrepreneurship

According to Michael Harries (2017) and Jeff Schneider (2011 – 2018), Entrepreneur Media (2019), AI has assisted businesses automate various processes of doing business. These are in the areas of :

Healthcare: Diagnostics cover radiology and image recognition, understanding and predicting disease emergence and progression, and predictive analytics in therapy responses. Others are surgical robotics which assist physicians as well as Nano robotics in carrying out surgical operations; personalized medicine cover individualized pharmaceuticals, medical devices, assisting medical practitioners in combining patient history with genetic information and applying machine learning to predict individual patient outcomes. Artificial intelligence also exploits other medical aspects such as drug discovery in the areas of pharmaceuticals, sensors monitoring behavior for animal testing Consumer products: Natural language processing with respect to narrow and repetitive conversations are other activities covered by AI, this includes ordering a delivery or scheduling an appointment with consumers.

Transportation activities: AI is also involved in haulage activities like autonomous vehicle such as trucking, ride hailing, etc. Part of its merits deals in last mile delivery using drones, two legged walker amongst others. Food Security: Vertical farms are using AI to monitor robotics crops’ harvesting in precision indoor agricultural production.

Marketing: Other aspects include human marketing and sales thereby reducing the time needed for tasks completion while eliminating human error. There are reservations about machines taking over jobs that are

expected to be done by human beings. It was also discovered that AI affects customer services, efficiency of entrepreneurs by assisting them to work remotely, effectively managing and tracking the performance of employees. It is also noted that, there is a lot of activities between AI and automating routing work just like machines replaced people during industrialization. It has also been confirmed that AI is involved in the interpretation of large volumes of data which could be difficult to be undertaken by human beings. Artificial intelligence is also impacting the digital age since having a website for one's business, many more customers can be reached than the traditional method of marketing.

3.1 Merits of AI in Entrepreneurship:

According to Palach Deshmulch (2017) and Ljubomor Jack (2017)

The following are the merits of AI in entrepreneurship

- ❖ Artificial intelligence (AI) reduces the chance of error to almost zero with greatest precision with great accuracy achieved during production operations.
- ❖ AI is endowed with the ability to take away the unpleasant aspects of our working lives since most of AI products, tools and applications will automate most of the standardized processes
- ❖ It is noted that due to the intelligence programmed into machines, intelligent machines can be used to replace many human beings in areas of work. Certain laborious tasks, painstaking activities normally undertaken by human beings can be done by intelligent machines
- ❖ Jobs that are repetitive in nature and time-consuming can be managed efficiently by artificial intelligence as well as carrying out certain dangerous tasks by adjusting the parameters e.g. speed and time to avoid being affected by certain factors that can injure human beings.
- ❖ The medical field is not left out of the benefits created by AI in entrepreneurial activities. Patients can be examined by AI indicating their health risks. Not only that, other aspects covered assisting in knowing the side effect of various medicines, training of medical professionals, stimulating brain functioning and in the diagnosis and treatment of neurological problems. There are astounding achievements in radiation precision with respect to tumors, thereby, reducing the damage to surrounding areas.
- ❖ It is noted that if properly coded, AI would have a low error rate compared to humans with incredible precision, accuracy and speed. Equally, AI is not affected by hostile environment and therefore can complete dangerous tasks, explore the space as well as replacing human beings in repetitive, tedious tasks carrying out laborious duties at place of work.
- ❖ AI can predict what a user will ask, type, search while acting as assistants e.g the smartphone.

In all, AI can work tirelessly, without the need to sleep, rest, go on breaks or be entertained because, they are never bored.

3.2 The De-Merits of AI in Entrepreneurship:

As useful as AI is, there are some de- merits and according to Palach Deshmulch (2017), these are:

- ❖ The cost of maintaining and repairing artificial intelligence is huge, this is because technology is dynamic, hence, the need to constantly update programmes to suit the changing requirements, because machines are required to be smarter in job execution and must be repaired in case of breakdown.
- ❖ Equally, the procedure of restoring lost code or data may be very costly and time consuming
- ❖ Machines may have the capacity to store enormous amounts of data; however, the storage, access and retrieval cannot be as effective as the human brain.

- ❖ Machines may have the abilities to carry out long term repetitive tasks, but they don't possess the abilities to get better with experience as human beings do. They act according to programmes which may not always be an advantage when a situation demands that one should act differently.
- ❖ If the control of machines goes into the wrong hands, it may cause destruction, not having the ability to think before acting, hence they may be programmed to do the wrong things which would be carried out unabated. Machines cannot work outside of what they were programmed for.
- ❖ AI working in hospitals can never act like human beings because they do not have emotions, hence, this can prevent empathizing with emotions for human contact as in the case of nurses and doctors.
- ❖ If AI begin to replace human in every field, it will eventually lead to unemployment because humans will be left with nothing to do; allowing machines to take charge of all the fields and being in the positions that humans occupy will leave thousands of people jobless.
- ❖ Application of Artificial Intelligence may be negating ethics and moral values ordinarily, it is not ethical to create replicas of human beings, nor is it morally sound to recreate intelligence which is a gift of nature and this may be wrong when AI is installed into machine to make it work for our benefit.

4. CONCLUSION

Artificial Intelligence is generating a growing interest among entrepreneurs especially in the developed economies, the developing countries are yet to grasp with these realities. The integration of AI into our business activities would assist us have time to focus on the things that matter to us as individuals. It will make innovative and fulfilled entrepreneurs/employees and this will obviously benefit our work places. Employees will endeavour to think more like entrepreneurs, even with AI taking about 50% of the standardized and repetitive tasks away from the employees. This would have a great impact on the dynamics of the workplace.

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