IMPACT OF ARTIFICIAL INTELLIGENCE IN HUMAN LIFE: A LITERATURE REVIEW

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ABSTRACT

This literature review is intended to compile, synthesize and evaluate the emergence of Artificial Intelligence impact in Human Life. AI technology has a long history that is continuously and aggressively evolving and growing. This focuses on smart agents, which involve sensors that interpret the world and in which action is taken to improve chances of achieving goals. In today's world, artificial intelligence is progressing rapidly with new technological technologies day in day out. The current AI basics and various representative applications of AI are clarified in the previous study. In the context of modern digitized world, Artificial Intelligence (AI) is the property of computers, computer programs and systems for performing a person's intellectual and creative functions, finding ways to solve problems independently, drawing conclusions and making decisions. Most artificial intelligence systems have the potential to learn, which allows humans to improve over time. Recent work on AI technologies, including machine learning, deep learning and predictive analysis, aimed at increasing the ability to prepare, understand, reason, analyze and take action. Artificial intelligence's primary aim is to build advanced, more complex systems that can outperform humans in every way to improve all human activities and offer better solutions to problems than humans can. This proposal to investigate how human intelligence varies from artificial intelligence and whether and how the new artificial intelligence is cleverer than humans.

Keywords: *Artificial Intelligience, Human Being*

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CHAPTER I. INTRODUCTION

This literature review is dedicated to enrich the discussions on Application of Artificial intelligence in Human Life. According study by Anthony Miller (2019), Human and Artifcial Intelligence interaction are presenting prodigious and exciting technological opportunities for mutual development even in today's current technological climate, but the real potential for mutual development is in the foreseeable future and beyond which has the potential to be mind-boggling. With the continued rapid development of not just technology but also in quantum research the potential for Artificial Intelligence to evolve at a frightening speed is within our grasp. The building blocks to achieve this phenomenal leap in technology consists of Quantum Computing, Big Data and brain computer interface (BCI), each becoming stepping stones and advancing to such a stage where once technology only thought of in science fiction will be an everyday feature of modern human and AI technology. AI and human beings bring their own unique traits with each learning from the other, humans bring attributes including experience, values and judgement which can weave together with the enormous attributes that AI can contribute. AI and human interaction have the potential to develop and push the boundaries of not just technologies on earth but also space exploration.

According study by Janna Anderson; Lee Rainie; & Alex Luchsinger (2018) networked artificial intelligence will amplify human effectiveness but also threaten human autonomy, agency and capabilities. The wide-ranging possibilities; that computers might match or even exceed human intelligence and capabilities on tasks such as complex decision-making, reasoning and learning, sophisticated analytics and pattern recognition, visual acuity, speech recognition and language translation. It calls smart systems in communities, in vehicles, in buildings and utilities, on farms and in business processes will save time, money and lives and offer opportunities for individuals to enjoy a more-customized future.

According Study by Indrasen Poola (2017), technological developments have significantly advanced since the 1990's with more significant improvement in the way people perform different tasks (Frey and Osborne 2017). The concept of AI as an area of science was more close to fiction. However, the idea of AI is no longer a fiction but a reality that has become part of our daily lives. Therefore, machine learning by use of neural networks that mimic the actual processes of the real neurons, AI allows machines to process complex data and provide accurate information (Iqbal et al. 2016). With the innovations and development of AI, it marks the golden age of AI. As a result, the AI has been the most advanced technology.

AI is already changing our daily lives, almost entirely in ways that enhance human health, safety and productivity. As in the movies, there's no or not even probable race of humanoid robots on the horizon. And while the potential for abusing. AI technologies needs to be recognized and discussed, their greater potential is, among other things, to make driving safer, to help children understand, and to expand and improve the lives of individuals. In reality, beneficial AI applications already develop at an accelerated pace in schools, homes, and hospitals. AI also changes the way humans communicate with technology. Many people have already gotten accustomed to touching their devices and talking to them. Future relationships between people and machines will become increasingly complex, dynamic, and customized as AI systems learn to adapt to individual personalities and objectives. These AI applications will help monitor the well-being of individuals, alert them to future risks and deliver services when needed or desired (AI100, 2016).

According study by Thomas Davenport; Abhijit Guha2; Dhruv Grewa; & Timna Bressgott (2019), Artificial intelligence (AI) appears likely to influence marketing strategies in marketing, including business models, sales processes, and options for customer service as well as customer behaviors. Those inevitable transitions may better be interpreted using three illustrative cases from different industries.

Even as AI continues to bring important benefits in-area, it also poses important ethical and social issues, including questions about privacy. Robots and other AI technologies in some industries have already begun to replace workers. As a society, that a critical stage in how to implement AI-based technologies in ways which promote democratic values such as equality, fair treatment and accountability rather than preventing them. For people, that expected to gradually but significantly shift the quality of life and how our contribution is appreciated. Over the next several years, AI research, systems development, and social and regulatory frameworks will shape how the benefits of AI are weighed against its costs and risks, and how broadly these benefits are spread (AI100, 2016).

1.1. Purpose of the Study and Review Questions

The literature review is written to contribute the impact Artificial Intelligence in human life developed based on two fundamental inquiries, as mentioned below:
1. What the impact of AI involving in Human Life?
2. How the new AI is cleverer than humans?

1.2.   Methods of Literature Review

To answer two fundamental inquiries, this article will conduct an integrative literature review on the articles, journals, and books related to application of artificial intelligence. To have a more extensive understanding about the development on research concerning this topic, this literature will include publications from year 2015 until 2020. The review will utilize Google Database and Google Scholars, Research Gate, Journal of Big Data, Journal of the Academy of Marketing Science, Pew Research Center, AI100, Journal of Latex. The keyword used for the search criteria is *Artificial Intelligence, Human Being.* The searching process focuses on publications within the scope of management, technology. In total, 6 articles were reviewed and synthesized.

CHAPTER II. LITERATURE REVIEW

2.1.   The Definition of Artificial Intelligence

Artificial intelligence is that activity devoted to making machines intelligent, and intelligence is that quality that enables an entity to function appropriately and with foresight in its environment. From this perspective, characterizing AI depends on the credit one is willing to give synthesized software and hardware for functioning appropriately and with foresight. A simple electronic calculator performs calculations much faster than the human brain, and almost never makes a mistake (AI100, 2016).

According study by Thomas Davenport; Abhijit Guha; Dhruv Grewal; & Timna Bressgott (2020), AI refers to programs, algorithms, systems and machines that demonstrate intelligence (Shankar, 2018 p. vi), is "manifested by machines that exhibit aspects of human intelligence" (Huang and Rust 2018, p. 155), and involves machines mimicking intelligent human behavior (Syam and Sharma 2018, p. 136). It relies on several key technologies, such as machine learning, natural language processing, rule-based expert systems, neural networks, deep learning, physical robots, and robotic process automation (Davenport 2018). By employing these tools, AI provides a means to "interpret external data correctly, learn from such data, and exhibit flexible adaptation" (Kaplan and Haenlein 2019, p. 17). Another way to describe AI depends not on its underlying technology but rather its marketing and business applications, such as automating business processes, gaining insights from data, or engaging customers and employees (Davenport and Ronanki 2018).

2.2.   Human Measure

Human intelligence a natural choice for benchmarking the progress of AI. It may even be proposed, as a rule of thumb, that any activity computers are able to perform and people once performed should be counted as an instance of intelligence. But matching any human ability is only a sufficient condition, not a necessary one. There are already many systems that exceed human intelligence, at least in speed, such as scheduling the daily arrivals and departures of thousands of flights in an airport (AI100, 2016).

2.3. Definition An Operational

AI can also be defined by what AI researchers do. This report views AI primarily as a branch of computer science that studies the properties of intelligence by synthesizing intelligence. Intelligence remains a complex phenomenon whose varied aspects have attracted the attention of several different fields of study, including psychology, economics, neuroscience, biology, engineering, statistics, and linguistics. Naturally, the field of AI has benefited from the progress made by all of these allied fields. For example, the artificial neural network, which has been at the heart of several AI-based solutions was originally inspired by thoughts about the flow of information in biological neurons (AI100, 2016).

2.4. AI Research Trends

AI technologies already pervade our lives. As they become a central force in society, the field is shifting from simply building systems that are intelligent to building intelligent systems that are human-aware and trustworthy. Several factors have fueled the AI revolution. Foremost among them is the maturing of machine learning, supported in part by cloud computing resource and wide-spread, web-based data gathering. Machine learning has been propelled dramatically forward by deep learning, a form of adaptive artificial neural networks trained using a method called back propagation. This leap in the performance of information processing algorithms has been accompanied by significant progress in hardware technology for basic operations such as sensing, perception, and object recognition. New platforms and markets for data-driven products, and the economic incentives to find new products and markets, have also contributed to the advent of AI-driven technology (AI100, 2016).

2.5. Human and AI Interaction

According study by Anthony Miller (2019), human beings need to learn from AI and AI needs to learn from human beings. The field of human–robot interaction uses an experimental technique called the Wizard of Oz where the human operator remotely controls the behaviour of AI. The Wizard of Oz is a technique which enables AI to provide appropriate reactions to human behaviour as well as human expectation. A Wizard of Oz Interface is already in development which in turn leads to further AI and human development. Socially

guided machine learning reframes the machine learning problem as an interaction between the human and machine. Machine intelligent quotient (MIQ) is a cloud-based system meaning it is online 24/7. This is a system where AI learns from human behavior and humans control the direction of the AI machine. This kind of interaction enables not just AI to learn from human behaviors but also AI to learn from human AI interaction. Experiments are already under way for example in hospitals for the development of robots who act as a support mechanism for patients with lifelong ailments including diabetes or autism. AI has already proved that the provision of physical activity with adults is within its grasp. Chatbots for AI and human interaction are already at an advanced stage ready for worldwide use, but the main topic of controversy and debate is AI being used for military purposes and the huge issue of autonomous AI in warfare without human interaction making decisions for itself.

CHAPTER III. ANALYSIS AND DISCUSSION

3.1. A Framework Understanding Artificial Intelligence

According study by Thomas Davenport; Abhijit Guha; Dhruv Grewal; & Timna Bressgott (2019), AI-related three dimensions: levels of intelligence, task type, and whether the AI is embedded in a robot. First level of intelligence, Task automation versus context awareness Davenport and Kirby (2016) contrast task automation with context awareness. The former involves AI applications that are standardized or rule based, such that they require consistency and the imposition of logic (Huang and Rust 2018). The differences between task automation and context awareness map onto concepts of narrow versus general AI (Baum et al. 2011; Kaplan and Haenlein 2019; Reese 2018). Kaplan and Haenlein (2019) state, both narrow and general AI may equal or outperform human performance, but narrow AI is focused on a specific domain and cannot learn to extend into new domains, whereas general AI can extend into new domains. Second, task type Task type refers to whether the AI application analyzes numbers versus non-numeric data (e.g., text, voice, images, or facial expressions). These different data types all provide inputs for decision making, but analyzing numbers is substantially easier than analyzing other data forms. Third, all in Robot Virtuality-reality continuum Most AI is virtual in form. Example, Replika is available on smartphones, and Libratus uses a digital platform. However, AI can also be embedded in a real entity or robot form, with some elements of physical embodiment. The extent to which a form is virtual versus embodied reflects its position on the Milgram virtuality – reality continuum (Milgram et al. 1995).

3.2. AI and Marketing Strategy

According study by Thomas Davenport; Abhijit Guha; Dhruv Grewal; & Timna Bressgott (2019), first predictive ability because AI can help firms predict what customers will buy, using AI should lead to substantial improvements in predictive ability. Contingent on levels of predictive accuracy, firms may even substantially change their business models, providing goods and services to customers on an ongoing basis based on data and predictions about their needs. Second, sales and AI may alter all stages of the sales process, from

prospecting to pre-approach to presentation to follow-up (Singh et al. 2019; Syam and Sharma 2018). Third, Sales Process AI focusing on customers expressed needs versus sales people being relatively better able to manage issues like customer stewardship. Fourth, AI an innovation process because the impact of AI is uncertain, firms need to figure out how best to (continually) develop AI. Fifth, modeling the evolution of AI firms need to develop realistic expectations, because in the short run, AI will provide evolutionary benefits; in the long run, it is likely to be revolutionary (Davenport 2018, p.7). That's the benefits of AI could be overestimated in the short term but underestimated in the long term, a point (sometimes called Amara's Law) in accordance with Gartner's hype cycle model of how new technologies evolve (Dedehayir and Steinert 2016; also see van Lente et al. 2013; Shankar 2018).

3.3.   AI and Customer Behavior

According study by Thomas Davenport; Abhijit Guha; Dhruv Grewal; & Timna Bressgott (2019), first AI adoption as a general point, due to a wide variety of factors, customers view AI negatively, which is a barrier to adoption. Customers perceive AI bots as being less empathetic. Customers also are less likely to adopt AI in consequential domains (Castelo et al. 2018; Castelo and Ward 2016) and for tasks salient to their identity (Castelo 2019; Leung et al. 2018). Second, AI usage when customers interact with an AI application, it might prime a low-level construal mindset (Kim and Duhachek 2018). Other mindsets might be primed by AI, e.g., AI may prime prevention focus among customers for whom AI is a relatively new technology. Third, post adoption in particular, customers might perceive a loss of autonomy if AI can substantially predict their preferences. In theory, because AI facilitates data-driven, micro-targeting marketing offerings (e.g., Gans et al. 2017; Luo et al. 2019), customers should view offerings more favorably, because it reduces their search costs. It also could undermine customers' perceived autonomy, with implications for their evaluations and choices (André et al. 2018). If customers learn that an AI algorithm can predict their preferred choices, they may deliberately choose a nonpreferred option, to reaffirm their autonomy (André et al. 2018; Schrift et al. 2017).

3.4. AI and Policy Issues

According study by Thomas Davenport; Abhijit Guha; Dhruv Grewal; & Timna Bressgott (2019), three broad areas in which policymakers seek to ensure that firms strike a suitable balance between their own commercial interests and the interests of customers: data privacy, bias, and ethics.

3.5. AI as Clever as Human Being

According study by Jahanzaib Shabbir; Tarique Anwer (2015), Generally, there are various paths towards building the intelligent machines that enables the humans to build the super-intelligent machines and provide ability to machines towards redesigning their own programming in order to increase their intelligence level, which is usually considered as the intelligence explosion. AI technology can frighten the humanity in a way that machine are unable to effectively transmit the emotions. There may be possibility that AI can support us with the tasks and functions which usually not involves the feelings and emotion. Until now, AI machines are not able to control their process, for which still need the intelligence and mind of human beings but AI development with same pace may cause threat to the humanity, because the self-learning ability may cause the AI machines to learn destructive things, which may cause killing of humanity in a drastic way. In general, there are things that computers cannot do, regardless of how they are programmed and certain ways of designing intelligent programs are doomed to failure sooner or later. Therefore, never going to make the machines have a thought at least similar to human the lack of thinking ability of machines may cause lack in passing the behavioral test. AI only takes actions either based on their coding, therefore, the lack of emotions and comparison about good and bad increases threats. AI machines are actually very intellectually limited, although it may become brilliant in specialization.

CHAPTER IV. CONCLUSION

The reviews on the impact of Artificial Intelligence in human life, literature review suggest that AI has impact almost entirely in ways that enhance human health, safety and productivity, marketing strategy, organization, becomes a central force in society, the field is shifting from simply building systems that are intelligent to building intelligent systems that are human-aware and trustworthy. The maturing of machine learning, supported in part by cloud computing resource and wide-spread, web-based data gathering. New platforms and markets for data-driven products, and the economic incentives to find new products and markets, have also contributed to the advent of AI-driven technology. AI-related three dimensions: levels of intelligence, task type, and whether the AI is embedded in a robot.

AI technology can frighten the humanity in a way that machines are unable to effectively transmit the emotions. AI can support us with the tasks and functions which usually not involves the feelings and emotion but there are things that computers cannot do, regardless of how they are programmed and certain ways of designing intelligent programs are doomed to failure sooner or later. AI only takes actions either based on their coding actually very intellectually limited, although it may become brilliant in specialization.

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