

Artificial Leaders as a New Companion to Human Leaders: Challenges and Opportunities

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Abstract

Technological advancement is one of the main characteristics in today's world. Science has developed itself and has replaced human labour by inventing different tools and machines. This research work has discussed about most important invention of human beings in the form of their substitutes: Artificial Intelligence. It has been analysed how technology has helped daily life of individuals by reducing manual labour. In literature review section, theories on change management have been discussed to develop an understanding about requirement of introducing changes to improve quality of services as well as to save time for other activities. Research methodology has discussed on research tools that have aided in successful analysis of the given topic by comparing challenges and opportunities of introducing artificial labours on human labour. Furthermore, secondary data collection method has been chosen in this study that has been performed on the basis of thematic analysis. Moreover, certain recommendations have also been discussed that can fulfil the gap of this literature work.

Keywords— Technological advancement, Artificial Intelligence, business world

INTRODUCTION

The application of artificial intelligence has been increasing in modern business world. Introduction of artificial labour has minimized overall expenses of the organisations required to make for human labours. There are many organisations that have been using artificial intelligence to perform their daily activities such as Amazon, Apple, Facebook, IBM, Microsoft, BMW, Kellogg's and many others. This technology has introduced Alexa which acts as digital voice assistant that helps individuals to do various activities. Furthermore, digital technologies have been applied to made money transfer, purchasing of different goods and services easier. Therefore, it can be considered that application of these technologies has made easier the lives of individuals.

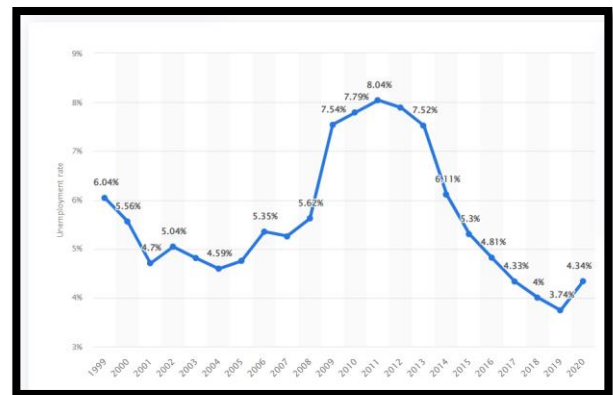


Figure 1: Unemployment rate of UK
(Source: Statista, 2022)

From the above figure it can be observed that unemployment rate has been showing an increasing trend from 2019. This increase has been resulting of Covid 19 pandemic that has infatuated use of latest technologies of online services by most of the organisations. These online services have reduced requirement of labours as mobile applications available to consumers carry information about availability of their required items that are delivered at their doorstep (Crawford *et al.* 2020).

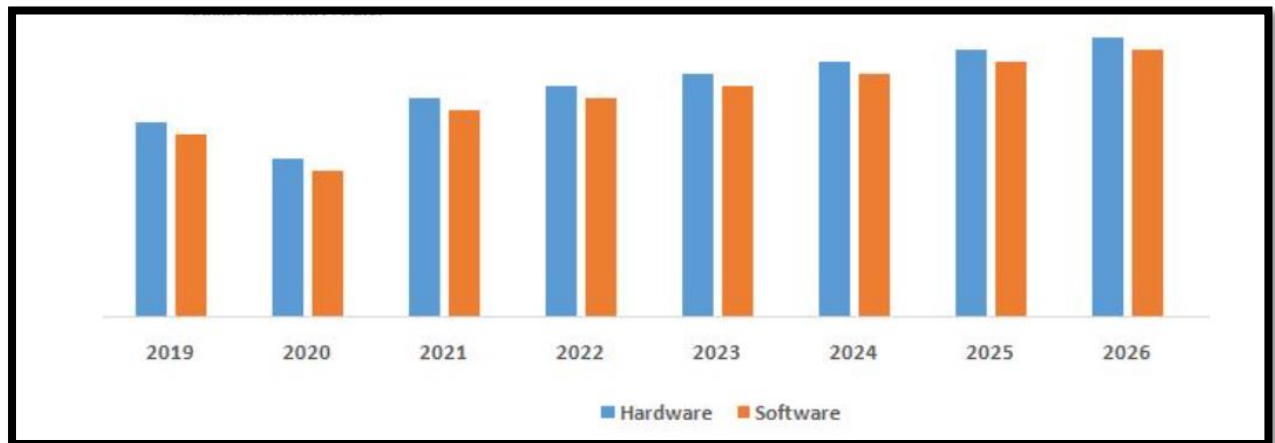


Figure 2: UK Artificial Intelligence market

(Source: MMR, 2022)

The above figure has been showing popularity of artificial intelligence in the market up to 2026. It has been showing an increasing trend of popularity that this intelligence technology will achieve in the market. This research work aims to analyse opportunities and threats associated with artificial labours that are introduced in most of the organisations along with human labours.

LITERATURE REVIEW

Impact of introducing artificial labour with human labour

Most of the organizations have highlighted the importance of making use of technological tools to make proper utilization of time and make efficient products. According to the opinions stated by Perfumi *et al.*, (2019), introduction of artificial intelligence has reduced workload of individuals. Human effort in manual form was used to be an ultimate source of work generation before introduction of computer and other technological tools. After application of these technologies delivery of work has become much easier as it reduced time and effort with an increased amount of productivity.

However, application of these artificial technologies required updated skills for employees in order to implement them within the system. Therefore, organisations making sue of these technologies have to organise training programs that developed skills and knowledge of their employees in favour of application of these technologies (Erhel and

Jamet, 2019). On the contrary, these artificial technologies have been replacing manual labour in delivery of many works. As a result of which many employees have to lose their jobs as their skills no longer matched with the requirement. Therefore, it can be said that although artificial technologies have improved quality of services, it has also negatively influenced economic growth of an economy.

The relationship among AI along with Humans

AI workers might utilize their multiplied power towards managing the mundane portions of people's works, complementing this human intelligence along with human workers would be more able towards using their personal extraordinary skills sets towards pushing the boundaries of critical thinking along with creativity (Topol, 2019). It is not unknown that AI supports in enabling people towards unleashing the creativity through augmenting the usage of technology along with data. In addition, AI therefore effectively creates a better foundation regarding innovation, enhances human productivity including that enables any public towards doing the works with few unmatched speed, broader scale along with reach. While this human intelligence is aiming to critically adapt to latest environments through using an amalgamation of unique cognitive procedures, Artificial Intelligence is aiming to build machines that can mimic this human behaviour including performing human-oriented actions (Paschen *et al.* 2020). As with

any relationship, this human AI-bonding would require timing including that effort towards establishing properly. In addition, human need to accept that this AI would take a certain estimation of timing to learn from including that adapting towards their behaviours including those preferences and towards acquiring latest skills.

Challenges and opportunities of AI leaders

In this section, it can be stated that AI technologies is more important as this helps in enabling human capabilities such as planning, reasoning, understanding, perception along with communication towards be undertaken through software increasingly efficiently, effectively along with that lower in cost (Madaio *et al.* 2020). AI is mainly used in business organization for the purpose of intelligence and this intelligence is allowing leaders towards critically evaluating others' viewpoints including hypothetically place few of them into this planning along with seeing in case they fit in.

Utilization of few valuable inputs that generally work out regarding the better sometimes enhances employee morale along with that provide better efficiency. Business leaders might be able to leverage AI in present times towards enhancing agility along with facilitation this implementation of this innovation paths of digital transformation among the business firms (Dwivedi *et al.* 2021). The main advantages of having AI leaders are that they enhance efficiency, improve workflows, and all-time availability and less human error related rates. It can be stated that some challenges are there of having artificial leaders such as ethical issues, multi-disciplinary groups, and privacy violations.

The role of Artificial Intelligence in building leadership

Business leaders might be able to leverage AI in recent times towards enhancing agility along with facilitating this implementation of innovative paths of digital transformation among business firms. This can uncover few solutions towards more complicated including that challenging strategy focused dilemmas

within a business firm, frequently hidden in any plethora of this data. It is obvious that AI leaders can provide more efficiency and productivity than any human leaders and due to this aforementioned reason, several business organizations are becoming more dependent upon AI leaders than any human leaders. In addition, AI focused technologies improve performance of leader including productivity in several areas mainly as mindful technical savvy humanist, facilitating systemic intelligence, and creating innovation along with trust.

It is also necessary to state that AI focused technologies also support in establishing creative capabilities, facilitating leadership skills, improves strategic thinking related skills and maintaining uncertainty. Therefore, it can be stated that these aforementioned capabilities would be automatically missing in human leaders therefore, artificial leaders are becoming the better companion of a human leader (Wiggins *et al.* 2020). Though this usage of AI is more advanced and faster, and no computer or else robot might be able to replace this critical human focused functions that are defining this organizational leadership. On this note, character, humanity, adaptability, engagement and vision are several traits recognized through HBR as main characteristics that any human leaders or else robots might not imitate.

THEORETICAL DISCUSSION

Lewin's change management model

this model has been developed by Kurt Lewin and has given lights on influence of changes on the individuals. This model has highlighted on three distinct stages such as **unfreezing, changing and refreezing**. Unfreezing stage describes the period in which individuals deal with previous model. Changing stage represents introduction of new change in the system. final stage is refreezing in which individuals become accustomed with new things. Hence, although there are certain challenges associated with application of artificial intelligence, implementation of these technologies become necessary for benefit of an organisation in future (Jain and Katarya, 2019).

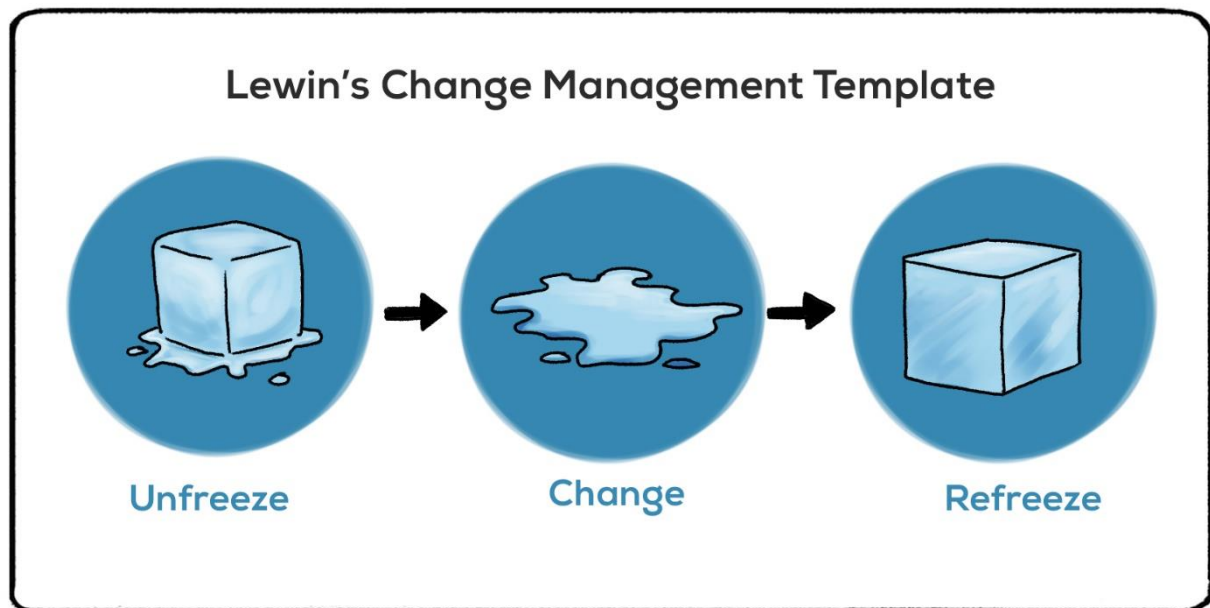


Figure 3: Change management model by Kurt Lewin

(Source: Cimellaro *et al.*, 2019)

Deming cycle (PDCA)

This cycle has been developed by Dr. Walter A. Shewhart in which he has focused on four

different stages to initiate any new changes within a system. PDCA signifies four different stages that involves improvement within a system for better outcome.

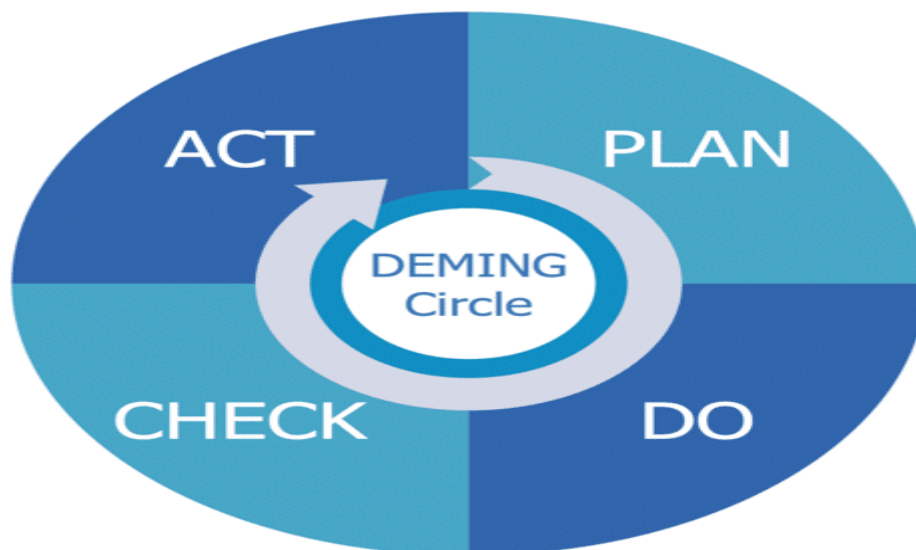


Figure 4: PDCA model of defining change

(Source: Scherer *et al.*, 2020)

The above figure highlights different stages of this model. **Planning stage** can be defined as thinking phase where necessity of involving any change is analysed. **Doing stage** refers to putting a plan into action by involving all the individuals (Scherer *et al.*, 2020). **Checking stage** measures risk and expected outcome that

a change can initiate. Lastly, **acting stage** refers to putting a plan into action.

Bridges transition model

William Bridges has developed this model to highlight transition phase through which an individual has to go through while initiating any changes.

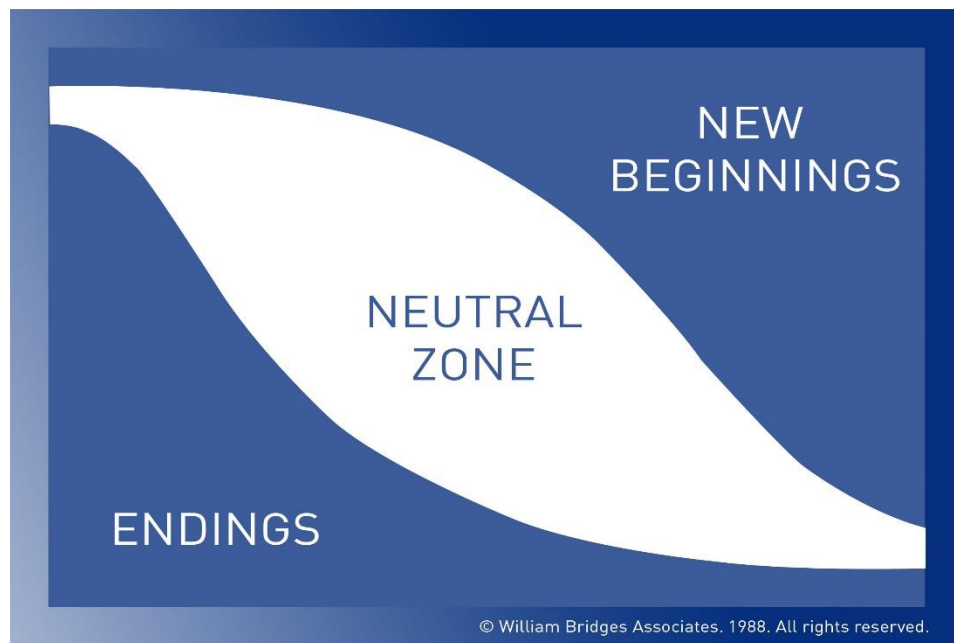


Figure 5: Transition of changes discussed in Bridges transition model

(Source: Pedersen *et al.*, 2018)

Different stages of this model have been shown in the figure above. **Ending stage** signifies current situation that is going to experience a change. **Neutral zone** refers to transition period where previous things have been changes and new things are about to be implemented. Lastly, **new beginning** is marked by implementation of new changes.

RESEARCH METHODOLOGY

In this research work, **secondary data** has been collected and in the requirement of collecting the data some secondary resources have been chosen. In the requirement of collecting the data, scholarly journals, books and articles have been selected and all of these secondary data have been gathered in between the last five years and just English language-based journals have been chosen. It is also necessary to highlight that particularly for this research work deductive research approach has been undertaken in this work. A **deductive approach** towards this research is this one that any people generally associate with any effective investigation (Cillis *et al.* 2022). The main reason behind selecting this deductive research approach is that it offers a better possibility towards explaining casual bonding among the concepts along with variables.

On the other hand, it is important to state that descriptive research design has been undertaken in this research work and this research design can be considered as a patterns of research design that is aiming towards critically obtain any information towards systematically illustrate situation, population along with phenomenon. Major reason for selecting this design for this research is that this provides a better allowance to scrutinize facts along with that supports anyone to establish a detailed understanding of any research issues. In addition to that, it has been mentioned earlier that **secondary data** has been taken and **qualitative analysis** procedure has also been undertaken in this research work in an effective manner.

It is necessary to showcase that **thematic analysis** has been effective undertaken in this research in terms of gaining a better understanding about the research work. On the other hand, **purposive sampling** has been taken to conduct this research work more effectively and this is a form of non-probability sampling in that any researches generally rely upon their personal judgement amidst selecting any journals (Braun and Clarke, 2019). In this section it is needed to highlight that, in the first hand 50 journals have been chosen then with

the support of purposive sampling technique 10 journals have been selected to proceed with this work. Then in the requirement of proceeding

with the further work information's have been gathered from those 10 journals.

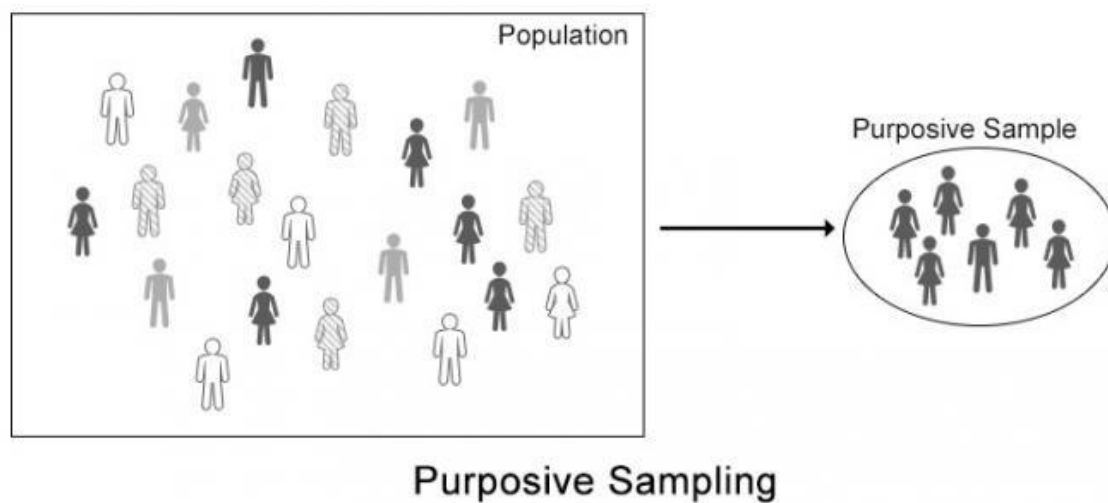


Figure 6: Purposive sampling
(Source: Braun and Clarke, 2019)

Ethical considerations

In this research article, information used from different sources has been effectively utilized without manipulating a single data. As per the views mentioned by Kulms and Kopp (2019), maintenance of ethical values increases trust and transparency of a work that enhances its acceptance. Hence, sources of information utilized in this article has been taken from proper sources, the numerical data have been used without any manipulation so as to maintain transparency in this study.

Discussion

Theme 1: Promoting use of latest technologies such as tablets, PCs in education system and its influence in learning process in terms of human computer interaction

Education system of most of the countries has implemented latest tools and techniques for improving mode of education. According to the opinions mentioned by Kim (2019), technological advancement has led to introduction of different tools such as PCs, laptops, tablets, and many others with fastest internet services that have helped people to get news all over the world rapidly as well as they can establish their communication with anyone

sitting across the globe. However, many employees working in these educational institutions have lost their jobs as online classes only involved students and teachers (Schnaubert and Bodemer, 2022). Therefore, it can be said that this implementation of latest technologies has helped to continue a smooth flow of education, it had also negatively influenced the economy by reducing sales of books as most of study material and books are available online.

Theme 2: Human behavior prediction and analysis using machine learning

In cybercrime department as well as in investigation cells, machine learning is usually applied to analyse human behaviour. As per the views highlighted by Mason and Carr (2022), lie detector and other tools function as artificial labours to analyse true and false statements. Hence, application of artificial intelligence technologies has minimized these efforts and provided a smooth technique to make required analysis. Human behaviour focused prediction modelling generally needs a predictive mechanism that might be helped in predicting a future behaviour of any individual. Predicting anyone's behaviour focused upon their actions is generally the most human related things that might be witnessed.

Theme 3: Deindividuation effects social influence in the context of computer-based communication

In today's world, most of the people have become addictive to use social media platforms such as Facebook, Twitter, Instagram and many others to communicate with others. These platforms include sharing of photos, videos, posts and others. As per the views mentioned by Tang and Hew (2019), deindividuation often takes place when an individual considers themselves to be separate from others. Furthermore, communications on social media are becoming so strong that people often neglect face to face conversation with others (Dwivedi *et al.* 2021). Therefore, this is one of the negative influences of latest technologies on life of individuals. Deindividuation can be recognized as the procedure at which any people generally lost their own sense of this socialized individual focused identity including that resort towards unsocialized including anti-social focused behaviour. In addition, this deindividuation can be recognized as a state that has been decreased this self-evaluation in this crowd including that this can be recognized as the major widely cited impacts of any social groups (Crossey *et al.* 2021). On this note, computer focused communication has been effectively transformed the right path any business organization is generally carrying out. In addition, this has led towards this introduction of any latest business focused channels including those latest paths to interact with any other consumers. However, this computer focused communication systems are having few pessimistic effects just as this ease of effective spreading pessimistic information.

Theme 4: Discussions on special issue that unifies human computer interaction with artificial intelligence technologies

According to the opinions developed by Raina *et al.*, (2019), cyber threats have been increasing at an alarming rate that poses threats to data of organisations. Therefore, in this situation application of effective tools become primary necessity for protecting information of different consumers as well as for the organization itself (Cox *et al.* 2018). AI can

support in enhancing the path that anyone relate towards one and another, including that make leaders behave less ethically. In addition, some experiments with any hybrid teams of people including robots those are working together have effectively reflected that the appropriate kinds of AI might support in enhancing the team's entire performance. In addition, AI along with that "human computer interaction" both are regarded as the two different fields separated through a basic focus. As per the views of Vaishya *et al.* (2020), AI was continuously been concentrating upon lengthy term projects that generally ran upon expensive systems, during HCI focused upon short term focused projects those are running upon commodity hardware. It can also be stated that, this AI might be massive support towards any human leader those are trying to effectively become major inwardly agile including that facilitate creative approaches towards this transformation.

Conclusion and recommendations

This research article has highlighted influence of artificial labour over human labour by giving lights on pros and cons of these technologies. It has been observed that with the advent of technology, introduction of smart technologies is one of the main sources to developing a business. Lack of employment options is one of the major threats as artificial labours are effectively replacing human labours for growth and development of an organisation, furthermore, it has also been observed that organisations can provide required training to their employees so that they can implement and work effectively with technologically advanced tools.

Recommendations

- Organisations are required to conduct training programs that would help their employees to learn new and different things for developing their skills and knowledge, this in turn would reduce threats of losing jobs (Ozkale and Koc, 2020).
- Artificial intelligence technologies should be used in such a way so that threats of cybercrime can be

minimized. In accordance with the opinions stated by Janssen and Kirschner (2020), cyber threats can be minimized through regular alteration of passwords and other information I order to keep records of consumers safely.

- Organisations have to provide scope to human labours as well as machines have wear and tear issues and they can become inactive in any time (Sedrakyan *et al.*, 2020). Human labours although time consuming bit can provide a constant support to the organisations.

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