
AUTOMATION, ROBOTICS AND ARTIFICIAL INTELLIGENCE: LABOURERS' ALLY OR ENEMY?

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ABSTRACT

There is a tremendous demand for automation in India, particularly in the sectors of manufacturing, warehousing, pharma, agriculture, online media, and information technology. With access to data communication networks and the prevalence of informal work, workers in the global South are rapidly inching closer to confronting the impact of automated or digitally enabled non-standard employment. The paper consists of seven parts. The first part outlines the introduction and differences between automation, robotics and artificial intelligence. The second part analyses the reports by the International Labour Organization and other official reports. The third part is regarding job polarization. The fourth part is the focal point of this paper, Industrial automation in India and their legislations in future. The fifth part deals with the advantages and disadvantages of automation. The sixth part is with respect to suggestions and finally, the concluding part emphasises the steps to make legislations regarding automation, robotics and artificial intelligence.

Keywords: Automation, Artificial Intelligence, Robotics, Replacing humans, Legislations in India, Labour laws

I. INTRODUCTION

Improvements in information communication technologies (ICT), which characterised the third industrial revolution, resulted in a paradigm change, which has led to it being referred to as the fourth industrial wave. These ICT encompass a wide variety of technologies such as artificial intelligence, robots, platform economies, and other technologies that have been extensively used to automate labour.

The International Society of Automation (ISA) defines automation as the development and deployment of technology to monitor and regulate the production and delivery of goods and services. Simply put, automation is the use of electronics and technology to reduce human interaction while increasing performance and dependability. By deploying equipment and technology that potentially substitute human capabilities, automation can lessen the need for manual labour.¹

Robotics is a branch of computer science and engineering that is interdisciplinary. It involves the study of the design, manufacture, operation, and use of robots. The purpose of robotics is to create machines that can assist and support humans.

Artificial intelligence (AI) is the replication of human intellect in robots that are programmed to think and act like humans. The phrase may also refer to any machine that demonstrates human-like characteristics such as learning and problem-solving.

People often confuse themselves between Automation, Artificial Intelligence and Robotics. So, to get a clear understanding, the difference between the three has been provided below.

Difference between Automation and Artificial Intelligence

Automation is a sort of software that operates according to pre-programmed principles, whereas Artificial Intelligence (AI) is software that simulates human thinking. While AI 'understands' data, automation collects and works with it. AI is used for non-repeated jobs, whereas automation is used for repetitive processes that follow directions and rules. AI

¹ *What is Automation?* - ISA. (n.d.-b). isa.org. <https://www.isa.org/about-isa/what-is-automation>

communicates with humans and learns from experience and compares circumstances before acting, whereas automation does not interact with humans and operates only on instructions.

Difference between Robotics and Artificial Intelligence

Robotics and Artificial Intelligence are two separate types of technologies that may assist men substitute their jobs and do work for them in an effective manner. Artificial intelligence (AI) is a subfield of computer science. While robotics is a programmable discipline of technology that works with robots. They are generally autonomous or semi-autonomous and conduct the task on their own through a sequence of actions. Artificial intelligence is mostly utilised for task completion, logical thinking, problem solving, language reading, and as a substitute for human intellect.²

Difference between Automation and Robotics

Automation is the use of hardware, software, and other technologies to automate processes that are normally done by hand. Robotics, on the other hand, is the design, creation, and use of robots to fulfil any desired task.

Because they frequently overlap, they are two distinct words with distinct methodologies and applications. Physical robots can be used to automate processes, although they are not typically designed to automate jobs.

For example, the employment of chatbots on a software development website is all about giving clients information, but this procedure is all about automation and no robots. An automobile assembly unit, on the other hand, where various parts are employed to produce certain portions of the vehicle, is an example of robotics powered by automation. Finally, a robot created to care for children, or the elderly is pure robotics with no automation.

II. REPORT BY INTERNATIONAL LABOUR ORGANIZATION (ILO) AND OTHER REPORTS

The report is with respect to automation and employability. The report titled “Changing Business and Opportunities for Employer and Business Organizations” list the proportion of

² SHAJI, B. C., & SHAJI, A. (n.d.). Artificial Intelligence and its Impacts on Indian Employment. *International Journal of Law Management & Humanities*, 4(1).

labour tasks that can be automated using current technology. In India, 51.8% of operations are capable of being automated. According to the research, "robotic automation is having the most impact, displacing low-skilled occupations and basic assembly activities." Japan and Thailand are at risk of having 55.7% and 54.8% of their operations automated, respectively. Over 40% of global operations can be automated. This is obviously bad news for the employed.

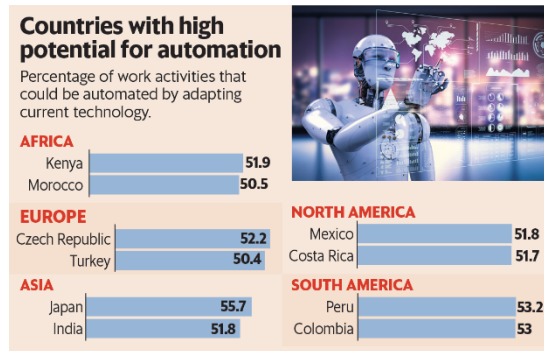
In addition, the report also pointed out that automation would affect "the majority of employment involving highly organised physical activity in predictable surroundings, such as manufacturing and retail, as well as data collecting and processing." Jobs with some sort of routine are more vulnerable than others. According to the research, automation may have a greater impact on women than males. According to the report, women "make up a sizable proportion of the workforce in retail, business process outsourcing, and textiles/clothing/footwear." This is largely due to the fact that automation poses a danger to industries where women make up a sizable portion of the workforce.

A significant point made by the ILO report is that 66% of Indian businesses are looking for quite a different set of skills among new recruits than they did three years ago.³

According to Business Standard, recent statistics show that nearly 69 per cent of jobs in India are under threat from automation. India's labour force participation rate, which measures the share of the working-age population currently working, has dropped to just 41 per cent. The working populations in the five largest economies in Asia Pacific -- India, China, South Korea, Australia, and Japan -- are more at risk due to physical robot automation than Europe and North America. By 2040, 63 million jobs are expected to be lost to automation, with more than 247 million jobs expected to be in jeopardy across industries that are more susceptible to automation, such as construction and agriculture. But even with the creation of new jobs in areas such as the green economy and information and communications technology (ICT) industries, 13.7 million jobs in the region will be lost to automation across wholesale, retail, transport, accommodation, and leisure sectors.⁴

³ Changing Business and Opportunities for Employer and Business Organizations. (2019). *International Labour Organization*.

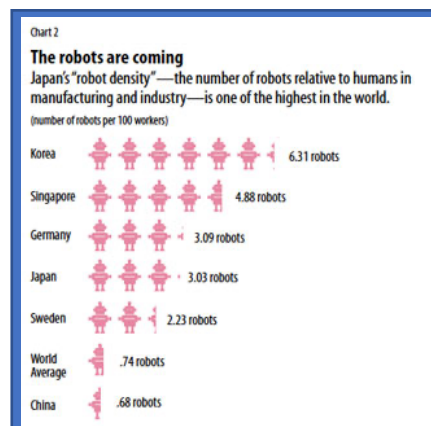
⁴ 69% jobs in India under threat by automation in 20 years: Reports. (2022). https://www.business-standard.com/article/current-affairs/69-jobs-in-india-under-threat-by-automation-in-20-years-reports-122080800263_1.html



Source: Business Standard

On observing the above statistics, Japan seems to be a country that can have high potential for automation. As we all know, Japan is a world leader in robot production and industrial application and Japanese firms have historically been at the forefront of robotic technology. During Japan's economic boom, companies like FANUC, Kawasaki Heavy Industries, Sony, and Yaskawa Electric Corporation led the way in robotic research. Automation and the use of robotic technology into industrial production have also played a role in Japan's post-war economic success. Over 40 years ago, Kawasaki Robotics began commercial manufacture of industrial robots. In 1995, around 700,000 industrial robots were in operation globally, with Japan accounting for 500,000 of them.

In 2016, the country shipped \$1.6 billion in industrial robots, more than the next five largest exporters (Germany, France, Italy, the United States, and South Korea combined). Japan is also one of the world's most robot-integrated economies in terms of "robot density"—the number of robots compared to people in manufacturing and industry. Japan dominated the world in this category until 2009, when Korea's usage of industrial robots skyrocketed and Japan's industrial manufacturing increasingly went outside.



Source: International Federation of Robotics, World Robotics 2017- Industrial Robots

In terms of productivity growth, the most significant increases in industrial productivity have been closely linked to increased use of information and communication technology and automation. While comparing productivity growth between the manufacturing and service sectors, the manufacturing sectors in Japan are those who rely heavily on automation. In contrast, the services sector, which accounts for 75% of GDP, has seen little annual productivity growth—roughly half that of the US. Manufacturing labour productivity has roughly tripled since 1970, but productivity has only increased by only about 25%.

According to the Bank of Japan's Regional Economic Report and the annual survey planned of capital spending by the Development Bank of Japan, small and medium sized companies are also adopting new technology to remove scarce labour and stay competitive.

Examples on how technology compensates scarce labour:

- Family Mart, a Japanese retail store chain is implementing self-checkout registers.
- Colowide restraint group have installed touch screen order terminals to streamline operations and reduce the need for staff. Other restaurant chains have also included technology like robot chefs etc.

Why is Japan entering a Pro-automation phase?

Japan's progress in automation is moving at a faster pace for several reasons:

Shrinking population - As previously stated, the productivity limitation suggested by a secular drop in the labour force would effectively compel many businesses to invest in new technology as is already evident in Japan, even among small and medium-sized firms, who face more difficulty attracting and maintaining employees. In this demographic trend, Japan is not alone, but it is substantially ahead of other sophisticated economies.

Ageing population - The ageing of Japan's population the so-called baby boom generation will reach the age of 75 in a few years is producing significant labour demands in health and eldercare that cannot be fulfilled by "natural" workforce entrants (i.e., natives). As a result, robots will proliferate well beyond Japanese industry, into schools, hospitals, nursing homes, airports, train stations, and even temples.

Declining quality of services - Recent research by Japan's Research Institute of Economy, Trade, and Industry's research arm (Morikawa 2018) shows that labour shortages are undermining service quality. Parcel delivery services, hospitals, restaurants, primary and secondary schools, convenience stores, and government agencies are among the most severely impacted.⁵

III. JOB POLARISATION

There is a concern that has been observed with respect to automation of labour, Job Polarisation. It refers to the hollowing out of mid-skill jobs with a relative increase in demand of low- and high-skill jobs. Job polarisation naturally results in wage polarisation and widening of existing inequalities. There is increasing evidence to support the claim that automation results in job polarisation.

Advocates of automation, on the other hand, say that it will follow a Schumpeterian trajectory, and that even if jobs are lost or polarised in the short term, the growing system will eventually bring newer and better chances for labour as a whole. This argument is based on the premise that enterprises will only employ automation technologies that result in a significant increase in productivity and efficiency. However, actual data from throughout the world and in India

⁵ *Managing Japan's Shrinking Labor Force with AI and Robots - IMF F&D Magazine - June 2018 | Volume 55 | Number 2.* (n.d.). IMF. <https://www.imf.org/Publications/fandd/issues/2018/06/japan-labor-force-artificial-intelligence-and-robots-schneider>

appears to indicate that corporations have been automating to simply replace labour with capital, with no higher productivity goals in mind.⁶

IV. INDUSTRIAL AUTOMATION IN INDIA

In India, automation levels are lower than in other countries since the cost arbitrage in labour trade-off with robots is lower due to the availability of inexpensive labour.⁷ The Indian strategy is to achieve "autonomy," which is a process in which industrial robots operate alongside humans. For instance, as of June 2015, an average of 30 to 40% automation was standard across all big automobile plants.⁸

There are no particular laws for robotics in India. With robotics breakthroughs, it is essential to assess whether existing rules will be enough or if a new law is necessary. Two specific factors for evaluating this question are described in the following paragraphs.

Unemployment:

Using industrial robots shall result in retrenchment of workmen,⁹ mostly those who are employed in performing repetitive tasks. Retrenchment is defined as termination of workman's services for any reason whatsoever, except termination due to disciplinary action, retirement, non-renewal of employment duration and continued ill-health.¹⁰ The Industrial Disputes Act ("**ID Act**") provides the procedure for retrenching workmen by providing notice and retrenchment compensation. This provision can be resorted to for downsizing workforce and replacing them by industrial robots.

⁶ Nippani, A. (n.d.). Automation and Labour in India: Policy Implications of Job Polarisation pre and post COVID-19 crisis. *NLSIU*.

⁷ Having said that, it is surprising to see that China which has similar labor advantage is increasingly shifting to 100% automation because it strongly believes that automation will boost production, quality, improvise skills and boost the economy

⁸ This is based on interview of major auto companies such as Ford, Volkswagen, Maruti Suzuki, Tata Motors and others who have established manufacturing units in Sanand, Pune and Chennai. For instance, Volkswagen factory in Pune has 30% automation and the products manufactured are fit for exports across Asia, Africa and North America; refer "Robots rising in auto factories but no labor replacement yet" available at http://www.business-standard.com/article/companies/robots-rising-in-auto-factories-but-no-labour-replacement-yet-115060600030_1.html

⁹ S. 2(s) of the Industrial Disputes Act provides a wide definition of workman, which means any person (including an apprentice) employed in any industry to do any manual, skilled, unskilled, technical, operational, clerical or supervisory work, for hire or reward, irrespective whether the terms of employment are express or implied, with an exception of anyone employed in managerial, or administrative, or supervisory work and earning more than INR 10,000 per month.

¹⁰ S. 2(oo) of the Industrial Disputes Act

However, a problem may arise if the firm wishes to recruit workers at any point after retrenchment since the ID Act requires employers to make first offer to retrenched workers. Purchasing robots to replace laid-off workers may result in labour conflicts and raise problems about the nature of the employer-robot relationship. Can a self-learning robot with predictive technology and artificial intelligence be viewed purely as a machine or a legal person (such as businesses), and if the connection is one of contract of service are sure to arise in such conflicts. Creating a legal personality for a robot raises problems about the rights and obligations of robots, which can jeopardise the very reason for which robots are utilised. These concerns may not find credible and reasonable answers in existing jurisprudence; hence it is critical that serious considerations begin in these areas. Simultaneously, policy adjustments must be implemented to enable alternative job creation. This will necessitate a push to guarantee that a bigger proportion of the workforce has better industrial skills and training, that indigenous manufacturing is encouraged, that entrepreneurship and SMEs are encouraged, and that innovation is supported.

In the case of *Narkesari Prakashan Karmachari Sangh Vs. Shri Narkesari Prakashan Ltd. and Ors.*¹¹ Shri Narkesari Prakashan was the respondent in this case and moved under-Section 25-N of the Industrial Disputes Act, permission to retrench 19 workmen who worked in field of hand composing. If the worker is working for more than one year continuously, then 3 months prior notice should be given to the particular workmen before the retrenchment. Because of the change in technology, they retrenched almost 19 workers. The workers challenged that it was null and void being violative of Section 9-A (Notice of Change) of the Act. The appellate court held that Section 9-A of the Act had no application in this case.

In 2016, the Tamil Nadu government declared that employees of IT firms were free to form labour unions under the Industrial Disputes Act, 1947. This was done due to employees of tech giants who raised their voices against dismissal of workforce when companies were adopting automated systems to replace human interface.¹²

In another case of *Hindustan Lever Limited Vs. Respondent: Hindustan Lever Employees Union and Ors.*¹³ the petitioner filed a complaint for unfair labour practice under item 9 of

¹¹ *Narkesari Prakashan Karmachari Sangh Vs. Shri Narkesari Prakashan Ltd. and Ors.*, [1999(81)FLR149], JT1998(7)SC509, (1999)IILLJ145SC

¹² Times of India

¹³ *Hindustan Lever Limited Vs. Respondent: Hindustan Lever Employees Union and Ors.*, (2006) ILLJ1119Bom

Schedule IV of the Maharashtra Recognition of Trade Unions and Prevention of Unfair Labour Practices Act, 1971. Workers had work in the Hard soaps department, Sulpha nation department, packaging department etc. Many problems arose due to the redeployment of the employees and non-payment of incentives. It amounted to change of their service conditions. Redeployment is necessary to meet the business needs regarding the introduction of new technologies and the introduction of new machines and power system of work. The respondents stated that the employees have been agreed for the redeployment and also for introducing new machineries and technologies. Taking this in the account the respondent prays for the dismissal of the complaint filed by the petitioner. The court held that the respondent was engaged in unfair labour practice under item 9 of the fourth Schedule of the Act of 1971. Court found no merit in the appeal and dismissed it with cost.

Liability for damages:

Defaults in robotic software and hardware might have unintended consequences, inflicting some amount of damage and raising problems about civil and criminal accountability. For example, a 22-year-old worker was murdered in 2015 at a Volkswagen vehicle factory in Germany when a robotic arm grabbed and crushed him against a metal plate.¹⁴ When industrial robots are self-learning, have the capacity to analyse data through sensors, and rely on artificial intelligence, the liability conundrum can become extremely intricate.

Assume that an industrial self-learning robot is leased from a robot manufacturer. Prior leases may have exposed the robot to a range of facts and behavioural patterns, which may trigger default when placed in a new setting. The precise kind and extent of the inaccuracy that may occur cannot be determined. There's also a chance that re-programming doesn't fully address the risks to the industrial process and safety. It will be difficult to assign blame in such a case. Can the robot maker be held accountable since it owns the robot, or can the lessee be held liable because it oversaw the robot's operation at the time of default? It will also be difficult to determine the precise cause of action in such cases. Existing law on vicarious responsibility (such as main agent) and strict liability is guided by the guiding concept of reasonableness, which always boils down to establishing whether the effects might be reasonably expected. These principles will fall short because robotics is a developing science, and the direct and

¹⁴ Refer "Robot kills man at Volkswagen plant in Germany" available at <http://www.telegraph.co.uk/news/worldnews/europe/germany/11712513/Robot-kills-man-at-Volkswagen-plant-in-Germany.html>

ancillary damage caused by technological failure or error cannot be anticipated or predicted. Does this imply that, as with manufacturers dealing with inherently hazardous or dangerous substances, a concept of absolute liability should be used when dealing with robots? Similarly, it will be unclear whether users will be able to use insurance schemes to seek indemnification for robot actions.

Furthermore, it is expected that in the near future, the underlying software and hardware for industrial robots will be open source, in which case auto updating functions similar to those found in Microsoft products would be feasible. Designers, algorithm authors, hardware makers, and assemblers will all be involved. As a result, determining the precise nature of the error, enforcing warranty protections, and establishing culpability based on established principles of product liability may necessitate extensive litigation.

Legislations related to automation, AI and robotics

An Indian citizen must abide by the rules and regulations outlined in the constitution. However, there are no specific or unambiguous restrictions in the Indian constitution regarding Automation, AI and Robotics (herein referred to as technologies). There were no proper rulings on the legal status of technologies, its application, or the state of current laws' implementation. The significance and utility have yet to be considered by Indian authorities. While recognising the benefits technologies has brought to society, we must equally examine the drawbacks. The advancement of technology leads to the expansion of the Indian economy. The elements influencing economic growth have previously been examined. The Ministry of Commerce was in charge of administering and regulating certain suggestions and policies governing economic growth. The ministry of commerce's studies covers topics such as the importance of these systems in India, the need for agriculture, manufacturing, and agriculture, among others. It also concerns data collection technology, ensuring proper safety and protections, and privacy. In the study they are offering some particular suggestions to the Department of Industrial Policy and Promotion ("DIPP").¹⁵

Legislations:

1. AI Algorithm ownership –

¹⁵ Ibid (2)

Algorithms will be classified as literary works under the Copy Right Act, which covers computer programmes. The algorithm's work must be original, and it must also have a valid owner.

2. The Competition Act, 2002¹⁶ –

This statute primarily limits competition in the commercial sector and prohibits the exploitation of a dominating position. The Indian Competition Commission enforces this statute (CCI). This statute outlaws' anti-competitive agreements, misuse of dominant position, and antitrust mergers and amalgamations. AI may work as a factor that assists the business market in changing its dominating position and bringing rivalry amongst enterprises.

3. Information Technology Act, 2000¹⁷ –

In today's society, the entire globe has become a global village where transactions may take place with ease. Data privacy and other intellectual characteristics, as well as confidentiality, must be protected at all times. As a result, countries such as India have enacted stringent laws and safeguards to safeguard private information. A recent poll conducted in 2018 on the issue of AI with industry stakeholders indicated that 93% of respondents had concerns about data protection. In 2018, the Supreme Court issued a major decision in the case of Justice *K.S Puttaswamy vs. Union of India*, which placed informational privacy inside the purview of the right to privacy, making it constitutionally protected as well as granting basic right status.

V. ADVANTAGES AND DISADVANTAGES OF AUTOMATION

POSITIVES

Automation can increase productivity

A common myth in the current generation is that automation is replacing jobs. But the fact is that robots and automation augment jobs to drive greater productivity. Since they require skills to work on with, highly skilled workers are employed and provided increased wages. That said,

¹⁶ Act No.: 12, 2003

¹⁷ Information Technology Act, 2000,(No 21 of 2000)

it creates a barrier for workers who do not pose the required skills. But several companies like Amazon, L'Oreal and Adobe are taking measures to invest in employees' education to broaden their skills. In addition, the work is not likely to be fully automated in future, but a future where robots will work alongside with humans. They are simply just replacing with repetitive jobs so that workers can focus more on important works.

For instance, according to Jayakeerthi Anand, senior VP of ABB India's smart power division, the firm was able to achieve productivity increases of up to 100% while using 30% less space by converting its own power products shopfloor at ABB's Nelamangala (Karnataka) facility to a smart factory. Work orders are transmitted on the internet, and work instructions are delivered through interactive video rather than paper. All testing is done by robots, which increases safety. Instead of being done by hand, all machine inputs are done via barcodes. All machinery is controlled by the smart factory. Robots deliver finished goods to retailers.

"End to end all processes can be remotely monitored, enhancing visibility and predictive analysis of the operations. As a result, there is data drilled down from a factory level to process lines to workstations, with high quality, consistent data available across anywhere in the ABB universe," Anand says.

Automation can be a friend, not an enemy

Robotics and automation have the potential to drive tremendous economic development and productivity, and as we've shown, they aren't as dangerous to jobs as some may assume. As the general public becomes more aware of the benefits of automation and robotics, human employees will begin to perceive robots more positively. For instance, automated systems enable the completion of activities that are beyond the capability of humans. The reaction speed of electronic controls, as well as the capacity of huge data processing machines to monitor and guide changes at hundreds of control points, enable complicated processes to be optimised to a greater extent than would be conceivable with human operators.

Another example is that, in May 2022, the department of Delhi Fire Services inducted two firefighting robots that could help navigate narrow lanes, reach places and perform tasks which are too risky for human beings. These robots are controlled remotely and are equipped with cameras, concrete cutters etc. This shows how automation can be friendly and help humans.

Consistent, On-time output

When processes like sending lead-generation emails or managing inventory are automated and scheduled to run on a regular basis, organisations eliminate human delays and disturbances. This implies that sick days, unanticipated crises, or severe workloads do not interfere with timely functions. Automation's predictability enables businesses to better plan ahead and foresee obstacles and opportunities, rather than being caught off guard by them.

Few costly errors

Whether automation is managing a small operation, such as inputting new customers' email addresses into a customer relationship management program, or doing sophisticated financial forecasts, it can lessen the risk for errors if correctly set. After all, computers, unlike people, are not readily distracted. Furthermore, when employees have centralised access to data and procedures, they are significantly less likely to experience miscommunications and duplication of labour.

Changes in the workplace as a result of the implementation of these technological systems

Semiautomated systems are already state-of-the-art technology in several technologically sophisticated nations such as South Korea, Japan, and Germany. Consequently, the change in the working environment caused by the adoption of these technological systems may be studied and discerned. Here are a few examples:

- One critical aspect is occupational safety in a work setting when robots are used. Employees are assigned safety zones in connection to their interactions with the robots. To avoid any unpleasant situations, it is explicitly seen that the timing and space of operation of the robots do not intersect with that of the human personnel.
- Actroids are utilised in the hospitality industry. Humanoid robots with aesthetic and mechanical resemblance to humans are known as actroids. They are engaged for basic hospitality tasks like as cleaning the rooms, greeting and serving visitors, cooking food, transporting baggage, and so on. In the near future, such robots will be able to do full-fledged hotel operations.
- Furthermore, it is projected that in the near future, robots will support humans in day-

to-day activities in the workplace. These automated devices may be of great service, particularly in areas (such as the medical industry) where people will find it impossible to do jobs due to personal ethics, health and cleanliness, and so on.

- The use of such intelligent devices is also capable of preventing physical sufferings or diseases that human employees may face during the normal course of employment operations.¹⁸

Benefits for lawyers using Legaltech

LegalTech encompasses a wide range of technological solutions, including online case filings, virtual conferences, client meetings, and court hearings, as well as more advanced tech tools such as automated litigation management and research, document automation, and even artificial intelligence (AI), machine learning (ML), and data analytics. These solutions assist and support a variety of portfolios while also connecting the three key legal elements – corporate legal departments, law firms, and authorities — regulatory and legislative agencies, tribunals, and the court.

Legaltech is becoming an important topic of conversation in the legal industry. “We now use AI-enabled technologies for document automation, proofreading, due diligence, legal research and e-discovery,” says Komal Gupta, chief innovation officer at Cyril Amarchand Mangaldas (CAM). CAM is full time service law firm and has launched its first Legaltech incubator ‘Prarambh’ in 2018. According to Gupta, CAM has completed two successful cohorts and has worked with numerous LegalTech entrepreneurs to assist them in developing "practical solutions to real problems. Furthermore, she says that one of the primary factors driving automation in the legal field is that it reduces "repetitive and often tedious work.

One of the most important part of lawyers is to research relevant precedents and AI-powered research tool not only identifies relevant precedents but also analyses them to determine which case laws should be referenced in court with rationale. Using AI and predictive coding, document review takes half the time.¹⁹

¹⁸ Ibid (2)

¹⁹ Bhan, I. (2022, April 28). *The Legaltech Wave: India's lawyers walk the e-talk*. Financial Express. <https://www.financialexpress.com/life/technology-the-legaltech-wave-indias-lawyers-walk-the-e-talk-2505991/>

NEGATIVES

Loss of flexibility

While today's automated technology may be fine-tuned to meet specific business requirements, there's no denying it takes a certain human touch from the equation. It is intolerant of design errors; if poorly coded, it will operate incorrectly until corrected by human intervention. Similarly, a customer service chatbot, for example, will have a more difficult time understanding a client's unique demands than a human person, which might lead to consumer dissatisfaction. Customized methods to certain jobs or processes may also need manual intervention.

Cost of implementation

While automation can pay significant dividends, when assessing prospective ROI, it is critical to include the upfront expenses. These include direct expenditures such as obtaining software licences, working with suppliers on configuration and rollout, data infrastructure and governance, and ongoing maintenance, as well as costs for employee training, software monitoring and support, and other services.

Businesses who seek highly tailored solutions should be prepared to pay a premium. If a company is already working on thin margins, these capital expenses might be tough to overcome.

VI. SUGESSTIONS

Automation, robotics, and artificial intelligence (hereinafter referred to as technological systems/systems) aid in the development of the labour market by increasing productivity and promoting economic growth. The advancement of these technological systems resulted in technical change, which created a worry of disruption in labour markets. This can lead to economic inequality among employees across the country, as well as an increase in job loss and employment displacement, resulting in a high poverty rate.

It is critical to understand the economic and social repercussions of these systems. The act of the authorities following a fundamental morality and principles without focusing on profits, showing greater concern to the impecunious group who are attempting to meet their lives for

day-to-day basic necessities is very required. Instead of encouraging disruptive innovation, central and state governments should prioritise the creation of ethical technological systems. Taking adaptive measures and putting in place the essential protections for the growth of these systems while excluding human labour will be an efficient idea.

Some special skills and talents from employees are required for improved product creation. The aptitude and talents of the workforce determine the growth and development of technological systems. It may be deduced that robots can only work according to the commands given to them and cannot function beyond the commands given to them. In contrast, thanks to technological improvements, a robot can now programme itself and can issue orders to itself. When these occurrences are considered, the level of risk to humans increases. To avoid wage discrimination caused by the adoption of technological systems, the determination of machine hours and man hours should be done initially.

Under Sec 20 to 25 of the Minimum Wages Act, 1948, the 'man hour' is defined as the working hour allocated for an adult that should not exceed nine hours in a day. When it comes to machines, the machine hour is not stipulated in any other Indian laws. A legislation defining the machine and man hour is desperately required.

It is possible to infer that the time required by a machine and the time required by a human should be distinguished. According to Indian law, an aggrieved party whose rights have been violated may seek compensation or remedy. Furthermore, the liability associated with this can be determined using Indian legislation and judicial involvement. However, the same compensation, liability, and punishments linked to an act performed by a robot or AI are not stated elsewhere in Indian statute. There is no place to lay blame or lodge a complaint against autonomous robots and machines. The duration of the punishment for the improper conduct, as well as the damage caused by the robot, are not specified anywhere. Indian legislation lacks an appropriate wage determination and employment classification. The time required by a machine and the time required by a human should be distinguished.

VII. CONCLUSION

Every country will have a different legal system since it must take into account the extent of robotics in use as well as how robots are seen by society and the polity. A forward-thinking and futuristic attitude is especially important for India because robots are still in their infancy,

and their effect and ramifications have yet to be realised. Robots are already subject to separate legal and ethical rules in developed nations. The goal has been to estimate the impact of robots on mankind over the next two decades. The conversations involve all stakeholders, and the objective is to develop laws that not only encourage robots, but also balance it with the best interests of humans. India must follow suit, or it would be obliged to imitate foreign rules, suffocating the fourth industrial revolution's possibilities.