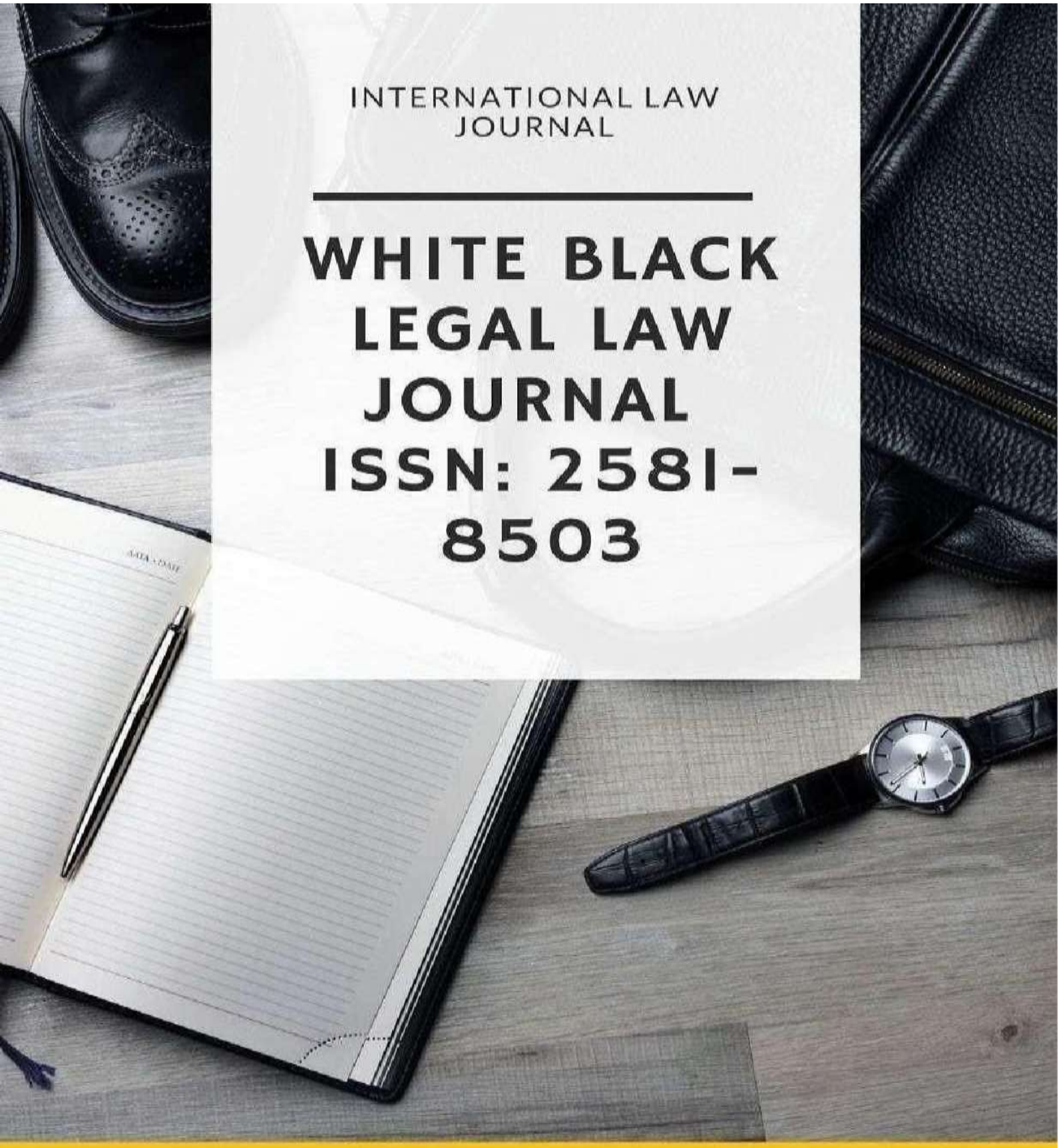

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Subhrajit did his LL.M. in Sports Law, from Nottingham Trent University of United Kingdoms, with international scholarship provided by university; he has also completed another LL.M. in Energy Law from University of Petroleum and Energy Studies, India. He did his B.B.A.LL.B. (Hons.) focussing on International Trade Law.

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With this thought, we hereby present to you

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THE FUTURE OF WORK IN A 'DORAEMON' GENERATION

AUTHORED BY - KIRTHANA NANDHA

INTRODUCTION

Artificial intelligence (AI) has been evolving at an unprecedented rate and the world is ambivalent about the same. This growth is creating opportunities and challenges for both employers and employees, leading to a fundamental shift from traditional notions of work. The vision of AI depicted in films and tv shows is slowly becoming reality. We seem to be moving closer to an era of futuristic, extraordinary gadgets as seen in the popular 1970s Japanese cartoon series, *Doraemon*.

Technologies like driverless cars, flying drones, 3D printers, and smart robots are beginning to come into play. This article aims to explore the implications of such technologies on the future of work. The growing development of AI is said to replace routine jobs in the future which would lead to an imminent job collapse unless tackled through methods such as retraining workers to suit jobs which cannot be replaced by AI. However, several jobs cannot be easily replaced by AI as AI does not have the ability to think and understand like humans and several situations require more than just lexical facts.[1] But what of our ability to think, if that in itself is being compromised on a daily basis, with us having to depend on AI for every little thing.

It must also be considered that although AI and advancement of technology would lead to the loss of several jobs it would also create new opportunities[2], but that raises the question of whether these new opportunities could be equivalent to the lost jobs. This article also highlights the legal challenges that are likely to arise such as breach of worker's rights, privacy concerns and workplace discrimination. Therefore, also arises the need for developing suitable labour legislations to address the same. Lastly, the possibility of coexistence of AI and humans in the

[1]Lene Pettersen, *Why Artificial Intelligence Will Not Outsmart Complex Knowledge Work*, 33, WORK, EMPLOYMENT & SOCIETY 1058, 1058-1067 (2019) at 1060.

[2] Morgan R. Frank, David Autor, James E. Bessen, Erik Brynjolfsson, Manuel Cebrian, David J. Deming, Maryann Feldman, Matthew Groh, José Lobo, Esteban Moro, Dashun Wang, Hyejin Youn and Iyad Rahwan, *Toward understanding the impact of artificial intelligence on labor*, 116 PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA 6531, 6531-6539 (2019) at 6532.

future of work, wherein both are mutually beneficial is discussed.

MOVING CLOSER TO THE 'DORAEMON' GENERATION

Doraemon, as depicted in the cartoon of the same name, is a robotic cat from the 22nd century. He is essentially a highly advanced robot with artificial intelligence.[3] However, one unique feature that puts him apart from the robots that are present today is the fact that he consists of Generative AI. This basically means that he entails human-like features, he showcases care and love for the protagonist, Nobita and also embodies anger and frustration when things get out of hand.

This concept of Generative AI is portrayed in a relatable and positive manner in the cartoon, but in reality it could lead to destruction if not monitored. Generative AI was envisioned much before as can be seen through *Doraemon* but there are several recent movies that portray the bad side of it as well, such as *Mission Impossible: Dead Reckoning (2023), Tomorrowland (2015), Margaux (2022), M3gan (2022)* and many more.

Although these movies are purely fiction, as is the concept of generative AI in the present, they can be used to imagine a world with generative AI which would be scary in more than one sense. Generative AI may seem unreal today, but so did smartphones, cleaning bots and chatGPT before the 90s, but all of these are a reality now and one day, generative AI might also be, so we must be prepared for the same.

Even by leaving aside generative AI, and just focusing on non- generative AI and robots, the effect of it on our daily lives would be huge. So it would be safe to say that the future of work will also be completely transformed. The advent of AI and technology would essentially displace many jobs, especially routine jobs such as those performed in factories, etc.[4] This could be beneficial in one sense that, all the injurious effects on workers, working in factories would be nullified. But of course, they would now be without a job, without any social security and without the ability to earn their bread and butter. This just leads to another rich getting richer and poor getting poorer situation.

[3] Hardit Singh, *Can we create doraemon in real life?*, QUORA (Jan. 20th, 2025, 9:04PM), https://harditsinghsblogs.quora.com/Can-we-create-doraemon-in-real-life#:~:text=Conclusion%3A,portrayed%20in%20the%20beloved%20series.

[4] Laura D. Tyson and John Zysman, *Automation, AI & Work,* 151 DAEDALUS 256, 258-271 (2022) at 259.

On a positive note, there would be a new influx of jobs, mostly jobs that would entail a team of people to supervise, control, repair and update the technology. Unfortunately this job would require knowledge of how the system works and could only be done by persons with a degree or qualifications on the subject matter. Today seems like a prelapsarian paradise, with the clock ticking and taking us closer and closer to destruction. It feels more real than ever now and we must prepare ourselves to face this 'Doraemon' generation.

NEW NEW NORMAL

The major unprecedented global event of 2020 was the COVID 19 Pandemic. It caused pain and suffering, physically, socially, economically, and politically. It led the whole world into a period of lockdown and isolation, it led nations into recessions and it exposed the inadequacies in healthcare systems, technology, and economic support. This event was also a very major cause for the AI revolution we are a part of now.[5]

Charles Darwin, a British naturalist, in his book *On the Origin of Species*[6], which is considered the base of evolutionary biology, mentioned the 'survival of the fittest'. The survival of the fittest is quite a popular notion, and this is simply what happened in the COVID era. The lockdowns and social distancing made it impossible for workers to go to work. This caused economic downfall and recessions. The only way to deal with it was the online mode of working. The same solution was given even to educational institutions. This forced the world to adapt to the lockdowns and find a way to survive, the way was through technological advancement.

Therefore, the lockdown essentially catalyzed the AI revolution and gave the globe no option other than adapting to this 'new normal'. COVID 19 eventually ended by 2022-2023, but the advancement of technology in this period was gradually increasing. Now, the pandemic is gone, but the AI revolution is still going strong. Initially, it was a precaution to deal with future pandemics, but now people are beginning to see the benefits of AI and automation and they want more. The 'new normal' that existed during COVID has now become old, and a 'new new normal' is anticipated, with much more automation and technological advancements.

[5] WORLD ECONOMIC FORUM, https://www.weforum.org/stories/2021/02/covid-19-increased-use-of-ai-here-s-why-its-here-to-stay/ (last visited Jan. 20, 2025).
[6]CHARLES DARWIN, ON THE ORIGIN OF SPECIES, 502 (John Murray 1859).

It is, however, uncertain whether this change is an evolution or a step back in terms of workers and their rights. In the COVID period there were several classes of workers like factory workers, who couldn't possibly continue their work online. This led to unemployment and that was brutal on these workers as they highly depend on their income for survival. They lost in the race for survival of the fittest, as they did not have the one thing that could have helped them survive: money. These workers' rights were severely violated, they had no job security, no living wages, and no income. If the upcoming 'Doraemon' generation proves to be another survival of the fittest, steps must be taken to safeguard worker's rights and ensure they fall on the right side of the coin this time.

AI'S ECLIPSE OVER WORKER'S RIGHTS

As observed in this article thus far, the impact of AI and automation on workers and their rights would be both positive and negative. Let's delve into the potential breaches of worker's rights first. The harm caused by AI to workers in their place of work is fundamentally through job displacement, discrimination, breach of their right to privacy and lack of job security.

The legal provisions protecting the above rights are:

- Job displacement:
    - Section 25F of the *Industrial Disputes Act, 1947:* Conditions for retrenchment, including notice and compensation.
    - Section 25N of the *Industrial Disputes Act, 1947:* Special provisions for retrenchment in industries employing 100 or more workers.
    - Section 25FF of the *Industrial Disputes Act, 1947:* Compensation for workmen in case of transfer of undertakings.
    - Section 33 of the *Industrial Disputes Act, 1947:* Protection of workers during pendency of industrial disputes.
- Right to Privacy
    - Article 21 of the *Indian Constitution*: Right to privacy as part of the right to life and personal liberty (as upheld in *Justice K.S. Puttaswamy v. Union of India*).
    - Section 43A of the *IT Act, 2000* : Protection of personal data and compensation for negligence in handling sensitive information.
    - Section 72 of the *IT Act, 2000*: Penalizes unauthorized disclosure of personal information by service providers.

- Right Against Discrimination
    - Article 14 of the *Indian Constitution*: Right to equality before the law.
    - Article 15 of the *Indian Constitution*: Prohibition of discrimination on grounds of religion, race, caste, sex, or place of birth.
    - Article 16 of the *Indian Constitution:* Equality of opportunity in public employment.
    - Section 4 of the *Equal Remuneration Act, 1976*: Prohibits wage discrimination based on gender.
    - Section 21 of The *Rights of Persons with Disabilities Act, 2016* : Prohibits discrimination in employment against individuals with disabilities.
- Right to Collective Bargaining
    - Section 4 of the *Trade Unions Act, 1926:* Provides for the formation of trade unions.
    - Section 18 of the *Trade Unions Act, 1926:* Legitimizes collective agreements made by registered trade unions.
    - Section 22 of the *Industrial Disputes Act, 1947:* Specifies conditions for lawful strikes and lockouts.
    - Section 12 of the *Industrial Disputes Act, 1947:* Role of conciliation officers in resolving disputes for collective bargaining.

The advent of the AI revolution would have an inevitable outcome on these rights. Workers in the manufacturing, transportation, and construction industries are most susceptible to job displacement. So are those workers who perform routine or repetitive tasks as these forms of labour can easily be replaced by AI and automation. To face this imminent job displacement, several measures must be taken, including retraining programs, UBI or universal basic income, government policies to ensure the security of workers and so on.

Another negative impact of AI is its invasion of privacy violating worker's right under Article 21 of the constitution. Today, anyone's information is available online, and can be used, even by AI. Presently, there is no legal provision in India preventing breach of privacy by AI. Services like OpenAI's ChatGPT can use any publicly available data from the internet without any legal consequences.[7] Worker's right to privacy can also be breached by their employer's

[7]ACADEMIKE, https://www.lawctopus.com/academike/ai-in-labour-relations-legal-implications-and-ethical-

excessive surveillance through upgraded technology, the same was challenged in the case of *Bărbulescu v. Romania.*[8] This issue in this case was whether an employer's monitoring of an employee's private communications on a work-related messaging account violated the employee's right to privacy under Article 8 of the European Convention on Human Rights. The Court held that that while employers can monitor workplace communications, such monitoring must be reasonable, proportionate, and respect employees' privacy.

One more problem anticipated with the use of AI and automation is its predisposition to being discriminatory and having a bias. Toni Morrison in *The Bluest Eye* said that "a person's love is only as good as the person; a stupid person loves stupidly, a violent man loves violently." [9] Applying this to our context, a machine or AI is only as good as its code. This code is written by a human, and humans have their own opinions and biases, which in turn means that there is a high probability of such a bias to seep into the code, leading to discrimination in the workplace. It is argued that face recognition technology is one of the ways that could lead to more monitoring of Muslims, Dalits, transgender people, and other oppressed groups which would violate their fundamental rights.[10]

As industries increasingly adopt AI-driven systems, job security becomes precarious, leaving workers hesitant to advocate for fair wages, reasonable hours, and safe conditions. AI's presence limits the formation of unions and collective negotiation by creating a power imbalance, as employers can rely on automation over human labor. Furthermore, AI's use in monitoring performance and assigning tasks intensifies workplace stress and reduces autonomy, silencing workers' voices in key decision-making processes. This creates a vulnerable and exploitative environment, with limited protections for employees in AI-driven industries.[11]

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con
cerns/#:~:text=While%20AI%20can%20increase%20productivity,and%20the%20rights%20of%20employees (last visited Jan. 20, 2025).

[8] *Bărbulescu v. Romania*, Application no. 61496/08, European Court of Human Rights (ECHR) Grand Chamber Judgment, January 2017.

[9] TONI MORRISON, THE BLUEST EYE 202 (Holt, Rinehart and Winston 1970).

[10] ACADEMIKE, https://www.lawctopus.com/academike/ai-in-labour-relations-legal-implications-and-ethical-con
cerns/#:~:text=While%20AI%20can%20increase%20productivity,and%20the%20rights%20of%20employees (last visited Jan. 20, 2025).

[11] Valerio De Stefano, *"Negotiating the algorithm": Automation, artificial intelligence and labour protection,* ILO Employment Policy Working Paper No. 246, 1-31 (2018) at 18.

UPSKILLING AND NEW JOBS

After discussing the problems associated with the advent of AI, let's now discuss the potential solutions to solve the above mentioned issues. Ideally the advent of AI will not have any negative impact on high skill jobs as they are more complex, require social interaction or need high level cognitive competence which cannot be done by AI. Therefore, possible solutions to tackle the threat to job security would be to create and implement policies with an aim to educate and train employees to access high skill jobs, provide legal protections to safeguard workers in all sectors and create a combination of income support policies. [12]

Only the tasks following generic rules can be done by AI. Therefore, when a task does not involve any generic rules or follow any logic and must be solved through past experience or interpretation, AI will not be able to do it. Here's where humans have an advantage, but these situations arise only in high skill jobs. Although AI can be very beneficial to reduce the workload of humans and make our tasks easier, it cannot fully replace human jobs as AI does not have the ability to think and understand like humans and several situations require more than just lexical facts, they require knowledge, which is interlinked to social context and based on experience.[13] Complex work can be made easier through AI's assistance but cannot be replaced by AI. So arises the need for upskilling and retraining. Upskilling basically means increasing your skill set to be eligible for higher skilled jobs, and retraining refers to training workers with a certain expertise, to adapt to a similar profession which is less likely to be overcome by automation.

An illustration with regard to retraining workers could be as follows, the jobs of paralegals and legal assistants can be taken over by AI and automated, thus, after an analysis of skill similarity it can be seen that the closest occupation with similar skills that they can be retrained to, which cannot be done by automation, is that of a Human Resource specialist as they rely on social skills which cannot be automated.[14] When it comes to upskilling, an example could be a marketing specialist, learning digital marketing techniques such as SEO, SEM, and e-commerce to expand his skill set. However such programs cannot eclipse the problems faced

[12] Laura D. Tyson and John Zysman, *Automation, AI & Work*, 151 DAEDALUS 256, 258-271 (2022) at 266.

[13] Lene Pettersen, *Why Artificial Intelligence Will Not Outsmart Complex Knowledge Work*, 33, WORK, EMPLOYMENT & SOCIETY 1058, 1058-1067 (2019) at 1062.

[14] Morgan R. Frank, David Autor, James E. Bessen, Erik Brynjolfsson, Manuel Cebrian, David J. Deming, Maryann Feldman, Matthew Groh, José Lobo, Esteban Moro, Dashun Wang, Hyejin Youn and Iyad Rahwan, *Toward understanding the impact of artificial intelligence on labor*, 116 PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA 6531, 6531-6539 (2019) at 6535.

by workers with respect to the qualifications required for such new jobs as new jobs would require a much more vast knowledge and experience. Also, the concept of retraining and upskilling is flawed in a sense, it may seem to work in theory but its practical application can be contested as the people who are already in the HR job (in the case of the first example) would now face a threat. Even if the workers in routine jobs are retrained or upskilled, they will still not have job security due to the increase in competition in the fields of work which cannot be automated, leading to someone or the other becoming unemployed.

COEXISTENCE OR COMPETITION

The World Economic Forum's "The Future of Jobs Report 2020" predicts 85 million jobs globally will be replaced by AI by 2025. The same report also indicates that AI can potentially generate 97 million new roles.[15] So the advent of AI is not all bad. However, the report cannot be relied on solely to argue that the job displacement would be lesser compared to the job opportunities and therefore it would create a balance in the world order, and everyone will be happy. Because that's not true, the labour intensive jobs will be the ones taking the biggest hits. And the jobs created would only extend to those who are educated and possess a degree. The labourers, who will be replaced by robots, are mostly illiterate, they only know how to do physical labour. Yes, they could be retrained, but the amount of time, money and resources that would take, will be too much for employers or the government to handle. So there's no doubt there will be competition, a 'Humans v. AI' battle, but is there any hope for co-existence?

The most common answer to that question is 'No' as AI is apprehended to lead to a singularity where it would take over human capacity, but many also argue that AI would only help us and make our lives better. Instead of looking at the relationship between humans and AI under the light of competition, it is believed that there can exist a symbiotic relationship between the two.[16]

A paper by John Paschkewitz and Dan Patt put forth an example in this regard. They mention a "superintelligence" model where AI aids humans to address hard problems, collectively which cannot even be solved by experts, thus emphasising on the capabilities of AI and humans

[15] Kalina Bryant, How AI will impact the Next Generation Workforce, FORBES https://www.forbes.com/sites/kalinabryant/2023/05/31/how-ai-will-impact-the-next-generation-workforce/?sh=50f8106e6fae

[16] John Paschkewitz and Dan Patt, *Can AI Make Your Job More Interesting?*, 37, ISSUES IN SCIENCE AND TECHNOLOGY 74, 74-78 (2020) at 76.

when working together. They also mention the concept of, "intelligence economy" referring to an AI augmented market, where markets, firms and AI infrastructure comes together to achieve human aspirations.[17]

AI does have the ability to help humans unlock their true potential and has helped make breakthroughs in fields such as neuroscience.[18] Neuroscience too, has helped to improve AI systems, this is a clear example of a symbiotic relationship between the two. AI could have a great impact on human life by expanding our knowledge and achieving breakthroughs that we never dreamed of. AI could complement human life. However, in the longer run, the cons outweigh the pros, so the possibility of coexistence with AI in a world without any promising corrective and controlling measures, when half the workers are unemployed and the other half is highly dependent on AI to do their work, is realistically, quite low.

CONCLUSION AND SUGGESTIONS

Artificial Intelligence, while a catalyst for progress and innovation, remains a necessary evil in the context of labor and employment. Its potential to revolutionize industries and enhance productivity cannot be overlooked, but it brings profound challenges, especially in a country like India, where a large segment of the population depends on routine and manual jobs. The automation of these roles could exacerbate unemployment, widen economic inequality, and undermine workers' rights.

To address these challenges, policymakers and stakeholders must take proactive steps. This includes establishing firm guidelines to ensure displaced workers are reinstated in meaningful roles, implementing robust upskilling programs tailored to industry needs, and fostering a legal framework that safeguards workers' rights in AI-driven workplaces. Balancing technological advancement with social equity is critical to ensuring that the benefits of AI are harnessed without disproportionately disadvantaging the workforce, paving the way for sustainable and inclusive development. Coexistence with AI may not be possible if no measures to control AI are established. However, with the rightful steps, and necessary legislations, we can look forward to, instead of be apprehensive of the 'Doraemon' Generation.

[17] *Id* at 75.

[18] ZUCKERMANINSTITUTE, https://zuckermaninstitute.columbia.edu/neuroscience-artificial-intelligence-neuroai#:~:text=We%20can%20train%20these%20neural,the%20meaning%20of%20brain%20activity (last visited Jan. 20, 2025).