
IMPACT OF ARTIFICIAL INTELLIGENCE (AI) ON EMPLOYMENT AND SOCIAL INEQUALITY- A STUDY

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ABSTRACT

AI refers to technologies that enable machines to perform tasks requiring human intelligence such as learning, decision-making and problem solving. While AI promises efficiency and innovation, sociology examines its social consequences, particularly its impact on employment patterns and social inequality. Rather than being a neutral technological force, AI is embedded in existing social structures of class, power, education, gender and global inequality.

Keywords: learning, decision-making and problem solving, social inequality, AI, job creation.

1. INTRODUCTION

In India, the rapid integration of Artificial Intelligence (AI) is a double-edged sword, acting as both a powerful engine for economic expansion and a potential driver of structural job displacement. While the technology is projected to inject nearly \$1 trillion into the Indian economy by 2035, its benefits are currently concentrated in high-tech urban hubs, threatening to widen the socio-economic gap between skilled digital professionals and the 90% of the workforce in the informal sector.

As AI automates routine tasks in manufacturing and services, India faces the dual challenge of leveraging this "AI-led growth" to boost productivity while implementing massive reskilling initiatives to ensure that marginalized communities are not left behind in an increasingly polarized labor market.

AI AND EMPLOYMENT

Global

Recent reports from Goldman Sachs indicate that AI could threaten up to 300 million jobs globally, with two-thirds of roles in the US and Europe at risk. In the UK, a survey of 22,000 job types suggests AI could impact around eight million jobs, with 11% of tasks already exposed to automation.

White-collar workers earning around USD 80,000 are particularly vulnerable, as highlighted by a University of Pennsylvania report. Roles in customer service, accounting, sales, research, and retail face significant disruptions.

The McKinsey Global Institute predicts that by 2023, 14% of employees may need to change careers due to AI advancements. As the job market evolves, both employees and employers must adapt to these changes, focusing on reskilling and embracing new opportunities in an increasingly automated world.

India

The IT industry in India has been a major employer, providing over 5.4 million jobs and creating numerous opportunities for fresh engineering graduates. However, the rise of AI poses challenges to this landscape.

As companies work to become “**AI-ready**” through employee reskilling, technologists warn of a potential white-collar recession in India by 2027.

AI will also **affect blue-collar jobs in India**, affecting about 300 million workers in sectors like manufacturing and healthcare. While advanced robotics may automate some tasks, mass job losses are unlikely, as AI is expected to enhance productivity rather than replace workers entirely.

2. AI TRANSFORMING SECTORS

AI is reshaping various sectors in India, enhancing efficiency, improving services, and transforming customer experiences in sectors such as services, healthcare, industry and finance.

The **Economic Survey 2023-24** highlights the varying impacts of AI across different sectors of the economy. The manufacturing sector is relatively less affected by AI, as industrial robots lack the flexibility and cost-effectiveness of human labor. While automation is present, it does not significantly displace workers.

2.1 Service Sector

The **service sector** is witnessing substantial AI adoption, particularly in customer service through the use of chatbots and virtual assistants. AI-powered chatbots such as Amazon India's Alexa-powered voice assistant are revolutionizing customer support by providing instant responses and personalized interactions enabling customers to shop, track orders, and get product recommendations through voice commands. This not only improves customer experiences but also streamlines operations and optimizes resource allocation, allowing businesses to operate more efficiently.

2.2 Healthcare Sector

In the Indian **healthcare** industry, AI is making significant strides. AI-driven diagnostic tools, medical imaging analysis, and predictive analytics are enhancing the accuracy and efficiency of healthcare services. Moreover, AI-powered telemedicine platforms are improving access to healthcare in rural and remote areas, addressing the challenge of healthcare delivery in a vast and diverse country like India. By leveraging AI, the healthcare sector can provide timely and effective services, ultimately benefiting patients and practitioners alike. An Indian government-developed app **Aarogya Setu** using AI that provided COVID-19 information.

2.3 Financial Sector

The financial sector is rapidly embracing AI technologies such as HDFC Bank's Eva AI powered-chatbot, for various applications, including fraud detection, risk assessment, credit underwriting, and personalized financial services. AI algorithms can analyze vast amounts of data in real-time, enabling financial institutions to make informed decisions quickly and efficiently. As a result, the demand for AI experts in finance is growing, as companies seek to leverage AI's capabilities for better risk management and enhanced customer experiences.

3. NEW OPPORTUNITIES FOR JOB CREATION

As AI continues to infiltrate various industries, the employment landscape is undergoing a significant transformation. Rather than simply replacing jobs, AI is reshaping existing roles and creating new opportunities. The **World Economic Forum (WEF)** anticipates that AI will generate 12 million more jobs than it displaces by 2025.

According to the **2019 report by the Ministry of Electronics and Information Technology (MeitY)**, by 2025, digital interventions, including AI, are projected to redeploy approximately 40-45 million workers in India through retraining and reskilling. Furthermore, around 20 million new jobs are expected to be created, particularly in sectors such as IT-BPM, manufacturing, agriculture, and transport and logistics.

According to a **2020 report by NASSCOM**, AI and data could contribute between USD 540 billion to 500 billion to India's GDP by 2025. Approximately 45% of this value is expected to come from three key sectors:

- Consumer goods and retail,
- Agriculture and
- Banking and insurance.

Additional sectors that will also contribute include telecom, media and IT, energy, transport and logistics, auto manufacturing and assembly, and healthcare.

While routine and repetitive tasks are more susceptible to automation, the introduction of AI often leads to the redefinition of job roles. Employees are increasingly collaborating with AI systems to enhance productivity and efficiency, allowing them to focus on more complex and engaging tasks.

The integration of AI into workplaces necessitates a workforce equipped with new skills. There is a growing demand for expertise in fields such as data science, machine learning, and AI development, resulting in new job opportunities focused on managing, maintaining, and advancing AI technologies.

AI serves as a force multiplier, enabling humans to concentrate on higher-order tasks that require creativity, critical thinking, and emotional intelligence. Instead of replacing workers, AI augments human capabilities, leading to a more dynamic and productive workforce.

Traditional industries are experiencing a shift as AI becomes more prevalent. For instance, manufacturing is evolving with the emergence of smart factories, which create jobs in AI-driven production and maintenance, changing the way products are created and delivered.

The democratization of AI technologies empowers entrepreneurs to explore innovative business opportunities. Startups are emerging in sectors like AI consulting and the customization of AI solutions for niche markets, fostering economic growth and job creation.

The focus is shifting from merely increasing the number of jobs to enhancing the quality of employment. By automating mundane tasks, AI has the potential to elevate job quality, allowing employees to engage in more meaningful and fulfilling work.

4. JOB LOSSES

In India, the challenge lies in the ability to retrain workers and enable them to transition to new roles created by AI. India's manufacturing sector has traditionally been labor-intensive, with a large number of low-skilled and semi-skilled workers employed in industries such as textiles, automobile, and electronics. However, the advent of automation technologies like

robotic process automation, AI-powered machinery, and 3D printing is reducing the demand for manual labor, especially in assembly-line tasks.

A report by the McKinsey Global Institute estimates that automation **could displace up to 60 million workers in India in the manufacturing sector by 2030**, particularly affecting jobs in textiles and electronics.

The IT and services sectors, which are integral to India's growth story, are also undergoing significant transformations. While India has been a global hub for IT services, the automation of basic IT tasks (such as coding, testing, and system maintenance) is reducing the need for entry-level jobs.

India's vast informal workforce is particularly vulnerable to technological disruptions. Without formal job contracts or social security, displaced workers may find it challenging to cope with the transition. Approximately 90% of India's workforce is employed in the informal sector, which is especially susceptible to automation, as these workers often lack access to retraining programs and support systems.

Automation-driven industries are more concentrated in urban areas, while rural economies remain heavily dependent on agriculture and traditional industries. A **World Bank** report suggests that rural-to-urban migration is expected to increase as automated jobs grow in cities, leading to challenges like urban congestion and pressure on infrastructure. Without targeted policies, automation may lead to **greater rural-urban migration** and uneven development.

Agriculture remains the largest employer in India but is also the least automated sector. The adoption of AI and automation in agriculture could lead to more efficient practices, reducing waste and increasing yields.

AI and automation could exacerbate existing inequalities. Low-skilled workers are more vulnerable to job losses, while those with advanced technical skills are likely to benefit. This could widen the income gap and deepen socio-economic divides.

5. MITIGATING JOB DISPLACEMENT

A crucial step in mitigating job displacement is investing in education and training initiatives focused on **upskilling and reskilling** the workforce. Both government and industry must collaborate to develop programs that equip workers with the necessary skills in emerging technologies, including AI. By ensuring that individuals are prepared for the digital economy, we can facilitate a smoother transition and reduce the risk of job loss.

Recently, **Upskilling Trends Report 2024-25** released by a global ed-tech company Great Learning found that 67.5% of engineers feel their jobs are being negatively impacted by AI, while 87.5% believe that upskilling is critical to safeguarding their careers in the face of technological disruption.

- Skill India Mission, launched in 2015 aims to equip workers with the skills necessary for the evolving job market. One of its flagship programs, the **Pradhan Mantri Kaushal Vikas Yojana (PMKVY)**, offers training in crucial areas such as AI, machine learning, robotics, and data analytics. By focusing on these emerging technologies, the mission seeks to enhance the employability of the Indian workforce.
- Digital India Mission focuses on digital literacy and promoting technology adoption across sectors

A strong social security framework is essential for informal workers, providing benefits like unemployment support, health insurance, and pensions. Additionally, promoting the formalization of the workforce will better protect those affected by automation. By offering these safety nets, we can help ensure that workers have the support they need to navigate the challenges of a rapidly evolving job market.

To foster innovation and AI start-ups, the government should continue supporting AI initiatives through incubators, funding, and research and development efforts. Public-private partnerships can further stimulate growth in sectors like healthcare, agriculture, and manufacturing.

Promoting inclusive growth is crucial. Targeted policies must bridge the urban-rural divide, ensuring that the benefits of automation reach rural areas and focusing on sectors such as agriculture and Micro, Small, and Medium Enterprises (MSMEs), which employ a significant portion of the workforce.

Encouraging **entrepreneurship** and innovation is another effective strategy for creating new job opportunities. By fostering a culture of entrepreneurship, we can stimulate job creation in AI-related startups and small businesses. Supporting initiatives that provide resources, mentorship, and funding for aspiring entrepreneurs can lead to innovative solutions and resilient business models that adapt to the changing landscape.

- The **Atal Innovation Mission (AIM)** is a key initiative that promotes innovation and entrepreneurship in AI and automation. It has set up Atal Tinkering Labs in schools to inspire creativity and problem-solving among students, along with Atal Incubation Centers to support AI-driven start-ups.

In 2018, **NITI Aayog launched the National Strategy for Artificial Intelligence**, focusing on using AI for inclusive growth. The strategy identifies five key sectors for intervention: healthcare, agriculture, education, smart cities, and mobility. By targeting these areas, the government aims to harness AI's potential to enhance development and improve citizens' quality of life.

While **National Education Policy 2020** suggests greater use of technologies such as AI, it must be aligned with the demand of the job market. Considering the risk of job loss across industries, the government must embark on a life-long learning platform. Initiatives such as "**FutureSkills PRIME**" cover emerging technologies, including AI, which must be strengthened. YUVAi (Youth for Unnati and Vikas with AI), an initiative for familiarizing school students from classes 8–12 with AI technologies, should be expanded.

6. AI AND SOCIAL INEQUALITY

In India, AI acts as a profound socio-economic "double-edged sword," significantly expanding the digital divide and income inequality while simultaneously offering new tools for inclusive growth. As of early 2026, a stark "skill premium" has emerged, with AI-specialized roles commanding salary premiums of 30–40%, further distancing high-tech urban professionals from the 90% of the workforce in the informal sector. This disparity is compounded by a persistent gender gap, where women hold only 25% of tech jobs and face a 24% digital gender divide.

Despite these challenges, initiatives like the India AI Mission and the multilingual BHASHINI platform are actively working to democratize access, aiming to reach the 548 million active internet users in rural India. Ultimately, while AI risks automating millions of routine jobs by 2030, its targeted application in agriculture,

healthcare, and education is being positioned by the government as a critical lever to bridge long-standing structural inequalities.

7. IMPACT ON SOCIAL INEQUALITY

AI threatens to worsen income disparities if the "digital divide" is not bridged.

- a) **Urban-Rural Divide:** AI opportunities are highly concentrated in urban tech hubs (Bengaluru, Hyderabad, Pune, Chennai), with 95% of AI jobs located in cities. Rural areas, lacking infrastructure, risk being left behind.
- b) **Wage Polarization:** AI is shrinking middle-skill jobs, creating a polarized labor market with high-skill roles (high pay) and low-skill manual/service jobs (low pay), widening the income gap.
- c) **Informal Sector Vulnerability:** 90% of India's workforce is in the informal sector, which lacks the social security or training to adapt to AI-driven, formal-sector changes.
- d) **Caste and Social Bias:** AI models trained on Western or upper-caste online data (digitally empowered groups) risk reinforcing traditional caste-based and social hierarchies in hiring and administrative decisions.
- e) **Gender Disparity:** Women hold only 25% of India's tech jobs, making AI-driven opportunities inaccessible to many, worsening gender gaps.

8. AI, POWER AND ALGORITHMIC INEQUALITY

In India, the intersection of AI and power is shifting from traditional human oversight to **algorithmic management**, creating new concentrations of influence while institutionalizing historical biases.

8.1. Shift in Power Dynamics: Algorithmic Management

The "invisible manager"—automated algorithms—now dictates the livelihoods of over 12 million gig workers.

- **Centralized Control:** Digital platforms (aggregators) use AI to unilaterally set wages, allocate tasks, and monitor performance, often with minimal human intervention or transparency.
- **Information Asymmetry:** Workers are subjected to "black-box" decision-making, where they cannot contest automated ratings or pay cuts, leading the **Economic Survey 2026** to call for rules to curb this platform power.
- **Economic Vulnerability:** Approximately **40% of gig workers** earn less than ₹15,000 per month, highlighting how algorithmic efficiency can lead to labor exploitation.

8.2. Algorithmic Inequality and Systemic Bias

AI models in India often replicate or amplify pre-existing social prejudices related to caste, gender, and religion.

- **Digital Welfare Exclusion:** Systems like **Aadhaar-linked benefit schemes** have faced criticism for "algorithmic failures" that exclude vulnerable populations due to biometric discrepancies, impacting the fundamental right to livelihood.

- **Predictive Policing:** Algorithms trained on historical crime data—which may reflect biased policing—risk creating a "vicious cycle" of over-policing in marginalized neighborhoods.
- **Facial Recognition:** Studies show Indian law enforcement tools exhibit higher error rates for individuals with darker skin tones and women.
- **Socio-Economic Proxies:** Algorithms often use "neutral" indicators like residence or language as proxies for caste and class, allowing for **covert discrimination** in lending and hiring.

8.3. The Push for "Sovereign AI"

To counter global "AI colonialism," the Indian government is championing a Sovereign AI doctrine to gain control over data and infrastructure.

- **IndiaAI Mission:** A ₹10,371 crore investment aims to build domestic GPU capacity (38,000 GPUs) to reduce reliance on foreign tech giants.
- **Linguistic Inclusion:** Platforms like BHASHINI (1.2M+ downloads) use AI to bridge communication barriers for non-English speakers, attempting to democratize access across 22+ regional languages.
- **Strategic Autonomy:** The **MANAV framework** and the **New Delhi Declaration on AI Impact (2026)** seek to harmonize innovation with national sovereignty, ensuring AI remains a "multiplier, not a monopoly"

9. SOCIAL CONSEQUENCES

In 2026, the social consequences of AI in India are characterized by a deep tension between **technological empowerment** and **systemic exclusion**. On one hand, AI is driving significant social progress through "frugal innovation," such as the **BHASHINI** platform, which has surpassed 1.2 million downloads and is dismantling linguistic barriers to governance for non-English speakers. AI-driven healthcare tools, like thermal imaging for early cancer screening in rural areas, are addressing critical doctor shortages. However, these benefits are countered by a widening digital divide, as urban hubs like Bengaluru and Hyderabad concentrate nearly 20% of all AI-related jobs, potentially hollowing out rural economies. Socially, the rise of AI companionship is a dual-edged phenomenon; while 57% of Indian youth use chatbots for emotional support to navigate sensitive issues, experts warn this may increase social isolation and erode authentic human bonds.

Furthermore, the weaponization of deepfakes and AI-enabled hate speech pose a growing threat to the dignity of marginalized communities and the integrity of democratic processes.

10. GLOBAL AND NATIONAL INEQUALITIES

AI's impact creates a "Next Great Divergence" globally while deepening structural divides within India by concentrating gains among high-skilled urban populations.

10.1. Global Inequalities

- AI is reshaping the hierarchy between nations, where advanced economies are better positioned to capture productivity gains than developing ones.

10.1.1 The Readiness Gap:

- Wealthier nations are better equipped for AI adoption; India ranks **72nd** out of 174 countries in the IMF's AI Preparedness Index 2024, scoring 0.49—above the emerging market average of 0.42 but far behind leaders like Singapore (0.80).
- Developing countries risk becoming "passive consumers" of AI rather than co-creators due to structural barriers in compute power and capital.

10.1.2 Resource Monopolization:

The IMF warns that access to critical AI inputs—specifically **high-end chips and raw compute capacity**—is increasingly concentrated in the U.S. and China, potentially cementing their technological dominance over the Global South.

10.1.3 Economic Divergence:

- AI could boost global growth by 0.8%, but advanced economies face higher job exposure (60%) compared to emerging markets (40%), leading to faster immediate disruption but also higher potential for rapid productivity gains.

10.2. National Inequalities in India

Within India, AI-driven growth is exacerbating pre-existing socio-economic divides across digital access, skill levels, and geography.

- Gains from AI adoption disproportionately favor capital owners and higher-income earners.
- AI-focused roles in India command a **28% wage premium**, while entry-level and routine roles face a "squeeze" or automation.
- **Class/Income:** Only 6.8% of the poorest 20% of Indian households have internet access via computer, compared to **66.3% of the richest 20%**.
- **Urban-Rural:** Internet penetration in rural areas (37%) remains roughly half that of urban centres (72%).
- **Caste:** Access to ICT skills remains highly skewed; only **10.5% of Scheduled Tribes (STs)** and 13.4% of Scheduled Castes (SCs) possess these skills, compared to much higher rates in the general category.
- India has one of the world's widest gendered digital divides at **40.4%**, with only a third of all internet users being women.
- AI-related jobs are highly concentrated in the "Southern Technology Corridor," with **Bengaluru (11%)** and **Hyderabad (9.57%)** holding the lion's share of opportunities.

10.3. Strategic Mitigations

India is positioning itself as a leader for the Global South to bridge these gaps through diplomatic and domestic efforts:

- **Global Leadership:** During the India AI Impact Summit 2026, 89 countries adopted the **New Delhi Declaration**, which advocates for "equitable AI diffusion" and affordable access to foundational resources for developing nations.

- **Domestic Infrastructure:** The India AI Mission has deployed 38,000 GPUs at subsidized rates (₹65/hour) to democratize compute access for startups and researchers outside major tech hubs.

11. POLICY AND SOCIOLOGICAL CONCERNS

In 2026, India's policy landscape is scrambling to catch up with the rapid "algorithmic colonization" of social structures. The **India AI Mission** represents a massive **₹10,371 crore** bet on sovereign infrastructure to ensure data isn't just extracted by global tech giants but serves local interests. However, sociologically, there is a brewing crisis of "**digital feudalism**"; while the **IT Amendment Rules 2026** aim to curb deep fakes and misinformation, they face criticism for potentially enabling state surveillance and stifling digital dissent. The **Economic Survey 2026** highlights a "hollowing out" of the middle class, where policy focuses on high-end innovation but leaves the **90% informal workforce**—who lack social security—vulnerable to automated displacement. This creates a sociological rift where a "tech-elite" commands 40% wage premiums while the rural populace remains trapped behind a **37% internet penetration barrier**, making AI a potential catalyst for the greatest wealth transfer in India's modern history.

12. CONCLUSION

The impact of AI on employment is socially uneven. While it creates opportunities for some, it deepens inequality for others. Sociology reveals that AI;

- Reflects existing power structures
- Reshapes class relations
- Produces new forms of exclusion

Therefore, the challenges is not AI itself, but how societies govern and distribute its benefits.

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