

# New Normal Luddite Fallacy in Post-Pandemic Employability Across the Globe with Emphasis on India

**Prof. Dr. C. Karthikeyan**

Professor & Administrative Officer,  
Department of MBA, SJBIT (Autonomous), Affiliated to VTU, Belagavi  
Email - [ddprofkarthik@gmail.com](mailto:ddprofkarthik@gmail.com), [karthikeyan@sjbit.edu.in](mailto:karthikeyan@sjbit.edu.in)

**Abstract:** *Can global health crises such as the COVID-19 pandemic influence human resource (HR) think tanks to adopt conservative policies? In countries like India, where the workforce is perpetually concerned about job security, individuals experience heightened anxiety and navigate through uncertain circumstances. Numerous studies have delved into this phenomenon, examining the pervasive sense of unease that characterises workers' lives. This article delves into the unprecedented nature of a pandemic like COVID-19, which has profoundly impacted various facets of society. It has affected public health and triggered significant disruptions in employment, leading to widespread uncertainty among workers and their families. Social movements, financial stability, and the availability of essential resources have all been thrown into disarray, pushing several economies to the brink of collapse. This upheaval has left HR strategists and policymakers grappling with the challenge of charting a secure path towards recovery. This article seeks to reimagine the current situation as a "new dimension of an old manifestation," where the world finds itself united in the face of a common adversary—the overwhelming influence of technological productivity over human interactions. This shift has instilled a pervasive fear among the public, prompting individuals to introspect on the sustainability of their employment. Despite the challenges posed by pandemics, they compel the working population and HR professionals to confront the seldom-discussed concept of employability. This article aims to explore this issue in the context of real-life scenarios, shedding light on the need for resilience and adaptability in the face of unforeseen challenges.*

**Keywords:** *Luddite Fallacy, Human Resources, Analytics, Intuitive, Performance, Management, Employability, COVID-19, Pandemic, Underemployment, Jobs.*

## 1. INTRODUCTION:

In the face of challenges such as COVID-19, SARS, H1N1, and other pandemics, a phenomenon known as "Luddites" has emerged. While the term is often deemed unfair and inaccurate, it persists in the lexicon of the global HR community. The recent tumultuous environment, brought about by the forces of nature, has exacerbated the disappearance of commonly cited HR issues, prompting a shift in the perspectives of HR professionals worldwide during the ongoing pandemic season. The changing landscape has led the entire global Human Resources community to reassess their views on professional life and its impact on personal growth and societal contributions. To comprehend the concept of Luddites, it is essential to recognize it as a pejorative term describing individuals who resist the adoption of new technologies, processes, or ideas due to the fear of job loss. Contrary to their concerns, it is crucial to emphasize that new technologies, work methods, and innovative processes do not inherently result in long-term unemployment. Instead, they tend to adjust to temporary structural unemployment. This research study aims to delve into the prevailing Luddite mindset rooted in historical actions driven by the fear of job loss. The analysis focuses on exploring various Luddite fallacies within HR models globally and seeks to classify functional models versus application models suitable for developing Sustainable Human Resource Management (HRM) models in the present scenario. It aims to elucidate that the Luddite fallacy has overlooked the "Compensational Effects" associated with technological developments during any pandemic or when introduced into the work culture.

## 2. Objectives:

(i) To examine the Luddite fallacies prevalent in the 18th century regarding the structural unemployment caused by the increased dependence on Technology Platforms during the COVID-19 pandemic.

- (ii) To assess the current transitional employment trends using secondary data derived from Compensational Effects resulting from the shift in job formats due to the heightened reliance on technology.
- (iii) To Investigate different Luddite fallacies in the mindset of employers and the industrial working population, focusing on their thought processes.
- (iv) To delve into global evidence to explore various fallacies and support positive employment regeneration occurring worldwide, including the impact of compensatory effects in countries like India.

**3. Research Design:** Conduct a meta-analytical and correlation study using secondary data sourced from reputable research reports of Apex Bodies to investigate and uncover potential compensational effects in the generation of employment.

#### **4. Data Analysis:** Secondary data analysis

**Justification of Methodology:** The application of the Luddite fallacy, which caused significant upheaval in the minds of 18th-century employees due to the widespread replacement of manual labour by advanced technology, mirrors a comparable disruption in contemporary times. The advent of recent pandemics such as COVID-19 has prompted both industrialists and employees across sectors to reconsider the stability and sustainability of employment. This reevaluation is fueled by the extensive reliance on technology during pandemics and the emerging concept of "work from anywhere."

**Conceptualizing the Problem:** Enduring the enormity of the COVID-19 pandemic has turned the world upside down. This unprecedented global crisis has marked a first for humanity, profoundly affecting the fabric of society. The impact has been widespread, affecting public health, employment, workers and their families, social movements, financial stability, and the flow of money, causing scarcity of essential goods. The shockwave nearly brought many economies to their knees. The confusion among HR strategists and policymakers was palpable as they grappled with finding the most secure and safe route to recovery. Despite the technological advancements and sophistication of healthcare systems, the entire healthcare system and medical infrastructure struggled to cope. Millions of workers lost their livelihoods, with only a handful of sectors successfully transitioning to online operations. Certain sectors, particularly those related to healthcare and medical infrastructure, exposed women employees to significant risks, resulting in tragic losses of life. Economies, governments, and industries worldwide faced a severe downturn, with cash flow coming to a standstill. This upheaval disrupted the normal lives of daily wage workers and industries relying on physical movements. Construction and travel industries experienced prolonged halts, and tourism essentially shut down on its own. The lockdown impacted 94 per cent of workers worldwide, putting 305 million full-time jobs and 1.25 billion workers at life risk due to their roles in the healthcare system. Sixty per cent of the earnings of all countries declined within the first month of the crisis. Educational disruption reached unprecedented levels globally, with students of all ages facing significant challenges. Small and medium-sized enterprises struggled to drive the global economy due to the lockdown, exacerbating the crisis. The aftermath of this global upheaval continues to present intricate challenges for recovery and rebuilding.

**The vicious cycle of Structural Unemployment:** Widespread anxiety and psychological discontent pervade the global working population, affecting individuals at all levels of employment, whether as workers or entrepreneurs. The assurances and possibilities associated with democracy, globalization, and the digital age now appear hollow to workers worldwide, given the profound impact of the pandemic and the resulting psychological distress in the realm of work.

Here are some key points reflecting the current situation:

- Income inequalities, which have been on an upward trajectory since the 1980s, experienced further exacerbation due to the negative effects of the COVID-19 pandemic.
- The global labour income share, which stood at 53.7 per cent in 2014, declined to 51.4 per cent post-2017 and plummeted to below 50 per cent during the pandemic.
- A notable 7.1 per cent of the world's workforce now grapples with extreme poverty, a figure that has escalated during the COVID-19 crisis.
- Women constitute a significant portion of low-paid, unprotected, and unprotected employees, exacerbating the challenges faced by this demographic.
- Alarmingly, 267 million young individuals find themselves outside the realms of formal or informal employment, education, or training.

These staggering effects, as reported by UN data, only scratch the surface. In reality, the COVID-19 pandemic has propelled digitization to unprecedented levels, transforming nearly all aspects of work, including the digitization of doctor's prescriptions, healthcare assistance, and consultation for medication.

**Fear of the Future of Work and Approach towards Work with Luddite’s Mindset:** The COVID-19 pandemic has primarily instigated a profound impact characterized by the "fear of job loss and heightened anxiety regarding the future of work." Consequently, this article aims to investigate whether a Luddite thought pattern has surfaced amidst the Fourth Industrial Revolution. In this era, state-of-the-art innovations such as network technology, Big Data, 3-D printing, Artificial Intelligence, Robotics, and service-related work have undergone significant transformations through digitalization and automation. These changes pose a tangible risk of exacerbating gaps and inequalities in society.



Source: [International Labour Organization \(ILO\) Monitor: COVID-19 and the world of work, 3rd Edition, 29 April 2020](#)

Figure 1: Impact created due to lockdowns across the world on Industrial Employability and productivity

The factors illustrated in Figure 1 have led numerous contemporary management thinkers, economists, and the global workforce to embrace the mindset of the Luddite Fallacy. This perspective foresees a gloomier and more uncertain future concerning employment and job creation. There is a prevailing concern that various sectors of work are approaching a standstill.

**The Luddite fallacy:** The Luddite fallacy highlights the observation that the introduction of new technology does not necessarily result in higher overall unemployment in the economy. Rather than destroying jobs, new technology tends to alter the composition of employment opportunities within the economy. While rapid technological changes may initially lead to short-term unemployment, economic theory posits that the jobs lost due to technological advancements will eventually be replaced by opportunities in different and emerging industries. The term "Luddite Fallacy" draws its roots from the 19th-century Luddites, who expressed concerns about potential long-term technological unemployment

without fully recognizing the compensatory effects. In this historical context, the gain from technological advancements often went unnoticed in the short run, and the subsequent increase in wages that contributed to the overall wealth of society was not fully appreciated. It wasn't until the 20th century that economists and thinkers dispelled the notion that long-term technological unemployment is inherently fallacious, acknowledging the dynamic nature of employment patterns and the overall positive impact of technological progress on the economy.

**Origin and Development:** Before the era of industrialization and globalization in the early 1800s, the entire world faced common challenges. Even the wealthiest industrialists were not immune to the sweeping impacts of events such as wars and pandemics. In one instance, uneducated working people resorted to destroying textile machinery and symbols of advancing technology, despite these advancements holding the potential to elevate humanity beyond mere subsistence. Fast forward to the present, the ongoing pandemic has prompted a shift in priorities. Humanism and the collective struggle to sustain economic activity for the greater good have taken precedence, transcending national borders. Governments worldwide, along with social thinkers, philanthropists, doctors, scientists, and industrialists – supported by apex economic bodies and the World Health Organization (WHO) – are issuing a resounding call to unite and safeguard humanity. In these challenging times, the resilience of humanity is evident, echoing the adage "Even when the going gets tough, the tough get going." Remarkably, adversity has spurred breakthrough innovations, showcasing the ability of society to adapt and thrive in the face of unprecedented challenges.

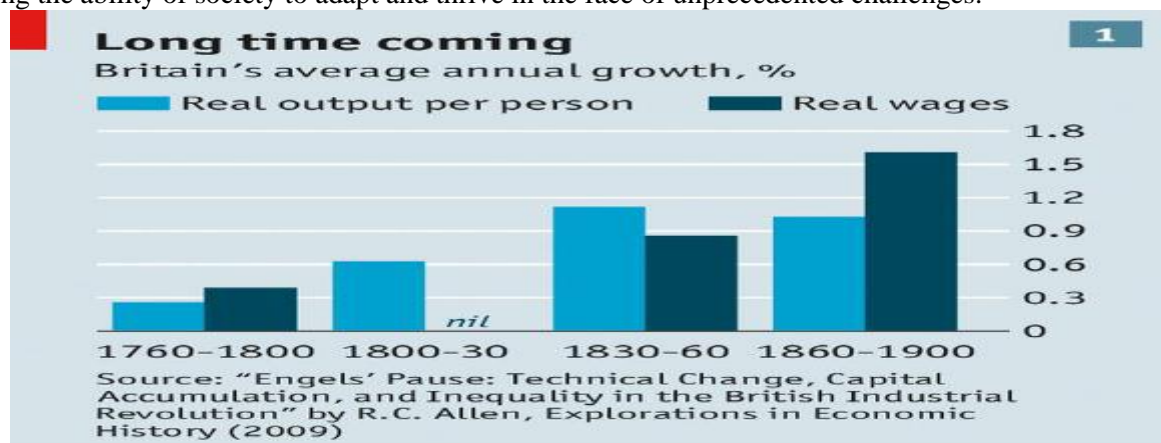


Figure 2: Impact created due to technological development since 17 the century across the world on Industrial Employability and productivity and that started the Lyddite's objection towards technological development in Industries: Source: www.wikipedia.org

#### Positive Compensational Effects of Industrialization or Automation of Any Work:

- Automated looms revolutionized clothing manufacturing, resulting in more affordable prices and increased savings or disposable income for individuals.
- Technological advancements have created new jobs, replacing tasks that were once hazardous for human workers with automation.
  - Service sectors now accomplish routine tasks at a rapid pace with minimal disruptions, reducing unnecessary downtime caused by human intervention.
- Although travel costs have risen, technology has simplified the process with a mere click on a mobile device, allowing easy access to tickets for global travel.
- While automation takes over unskilled jobs, these roles are transitioning into new sectors within the economy.
- Pareto improvement, stemming from technological changes, has the potential to either enhance or jeopardize the living standards of those facing economic challenges.

**Balancing Luddite fallacy with needs of reality:** While the Luddite fallacy advocates for supportive measures to alleviate unemployment, some governments employ the Pareto principle, ensuring that neither Luddites nor the unemployed endure hardship through initiatives such as insurance relief and free training. Throughout history, from prehistoric times to the present day, the progression from automation to industrialization has not eradicated the need for human workers. Contrary to Luddite's claims, it consistently generates or shifts employment opportunities, adapting to the evolving job landscape amid population growth. Even in today's digitally connected world, the IT revolution has significantly enriched and prospered individuals. Following the vision of Keynes, it is anticipated that by 2030, society will experience considerable wealth and prosperity compared to its current state.

**Employment Activism of the 20<sup>th</sup> Century by Way of Pandemic Intervention and Disrupting Traditional Way of Work:** Employability activism is what is now the post-pandemic impact realization among the countries of the world,

and concerning India, what this article speaks about is the “educated unemployment and underemployment and alternative employments have taken a new course” that is exceedingly faster than what was predicted. Employee Categories “Spiralling to Risk” Worldwide Statistics as per UNO/WHO.

Economic sector	The current impact of the crisis on economic output	Baseline employment situation (global estimates for 2020 before COVID-19)			
		Level of employment (000s)	Share in global employment (per cent)	Wage ratio (av. monthly earnings/av. total earnings)	Share of women (per cent)
Education	Low	176560	5.3	1.23	61.8
Human health and social work activities	Low	136244	4.1	1.14	70.4
Public administration and defence; compulsory social security	Low	144241	4.3	1.35	31.5
Utilities	Low	26589	0.8	1.07	18.8
Agriculture; forestry and fishing	Low-Medium*	880373	26.5	0.72	37.1
Construction	Medium	257041	7.7	1.03	7.3
Financial and insurance activities	Medium	52237	1.6	1.72	47.1
Mining and quarrying	Medium	21714	0.7	1.46	15.1
Arts, entertainment and recreation, and other services	Medium-high*	179857	5.4	0.69	57.2
Transport; storage and communication	Medium-high*	204217	6.1	1.19	14.3
Accommodation and food service	High	143661	4.3	0.71	54.1
Real estate; business and administrative activities	High	156878	4.7	0.97	38.2
Manufacturing	High	463091	13.9	0.95	38.7
Wholesale and retail trade; repair of motor vehicles and motorcycles	High	481951	14.5	0.86	43.6

Source: [International Labour Organization \(ILO\) Monitor: COVID-19 and the world of work, 3rd Edition, 29 April 2020.](#) \* - denotes sectors that include sub-sectors that have been affected in different ways. For example, parts of manufacturing have been hit hard (e.g. automobile industry in Europe), while other segments are less so.

Figure: 3 Statistical Inputs of “Spiralling Effect of Workers at Risk”: Developed by Prof Dr.C.Karthikeyan

The utilization of technological support and process innovation during the pandemic initially served as a lifeline for industries grappling with destitution. This provided strategic options for maintaining the "status quo of working style" to enhance the bottom line or recover from economic downturns. However, the widespread adoption of technology, particularly the shift to remote work for industries like IT and ITES, has raised concerns. The increased reliance on technology has prompted industrial houses to adapt to new working styles, with the implementation of both revenue-generating and "cost-saving strategies naturally placed owing to pandemics." While these strategies have introduced novel means of cost savings, the transformation in work styles has become a double-edged sword, proving advantageous for some and disadvantageous for others. The current situation warrants scrutiny, as the Luddite Clarion Call echoes from a segment of the working class. Nobel Laureate Wassily Leontief's observation in 1983, highlighting the "undesirable distributional effects across income groups" resulting from technological advancements, is particularly relevant. The impact of these changes on the economic stability of individuals and industries prompts HR strategists to reconsider whether the Luddite Fallacy is resurfacing in a different guise.

The evolving fear of Scientism: From essential resources like food and water to crucial services such as medicine, almost everything can now be accessed with just a click of a mouse. The landscape of employment has undergone a significant transformation, especially in sectors related to services and information technology-enabled services (ITES). This shift has rendered many graduates unemployable, as the traditional avenues that once guaranteed employability are rapidly shrinking. Historically, higher educational institutions relied heavily on sectors like ITES to secure placements for their students. The support services provided by colleges offering engineering and tech courses played a vital role in supplementing employment opportunities. However, the gradual decline in these sectors was exacerbated by the pandemic, which acted as a catalyst for rapid and profound changes. The pandemic, at its most virulent stage, not only accelerated the decline but also led to a sweeping clearance of jobs. In the guise of dealing with the health crisis, industries opted for alternatives that leveraged technology to streamline their processes – tasks that,

just a few months prior, were executed by human hands. This transition resulted in a dehumanization of the workforce, amplifying the severity of the existing challenges. One notable error in judgment lies in the global understanding and estimation of employability, perpetuated by the media and the working population alike. Amid the pandemic, there is a tendency to misinterpret and falsify outlooks and predictions related to job creation. This is often done under the guise of scientism, contributing to the dehumanization of humankind. In essence, this falls into the category of the "Luddite Fallacy," creating a dubious distinction and sowing doubt about the future in a world increasingly reliant on technology.

The reappearance of the Fallacy: The underlying cause lies in the psychological perspectives of both the working population and industrialists rather than the actual challenges they face. Each group has its perceptions and connotations about the concept, while the practical challenges differ significantly.

Let's delve into the paradox mentioned above: In the digital era, numerous paradoxes are arising as startups with innovative work processes strive to aggregate tasks into apps, reducing labour costs and enhancing the bottom line. However, concerns persist, and various fallacies are circulating among employees.

Fallacy One: Warnings from policymakers, HR strategists, and social media suggest a decline in job opportunities due to advanced technology, leading to involuntary unemployment in industries reliant on technological support.

Fallacy Two: Industries lack clear policies or strategic input regarding the potential destruction of a large number of routine jobs, especially in the manufacturing sector.

Fallacy Three: Anticipations of a shift in work culture towards shorter workdays, shorter workweeks, and skeletal staff, becoming prevalent across all sectors.

Fallacy Four: Exaggerating adjustment problems and anticipating the worst-case scenario create fears among the workforce and industrial entrepreneurs, hindering strategic planning.

Fallacy Five: Concerns about artificial manipulation using pandemic-related lobbying to experiment with specific labour markets, leading to increased unemployment or underemployment.

Fallacy Six: Employers globally face strategic challenges as wages higher than technology's cost for similar tasks raise concerns about maintaining the status quo, especially with the success of strategies like "work from home."

Fallacy Seven: Expectations of recurring pandemics and technology displacing routine clerical and soft infrastructure.

Fallacy Eight: Persistent low wages in various industries due to lessons learned during intermittent lockdowns, leading to concerns about maintaining low wages even after pandemic recoveries.

Employment Landscape in Emerging Economies like India: The millennial demographic, armed with skills and qualifications, assumes a pivotal role in propelling India's growth. Navigating this diverse pool of talent demands meticulous attention, blending technology with the democratic principles of the country. They inherently embody the future trajectory of India.

Misconceptions Surrounding Millennials: With a staggering population exceeding 440 million, they stand out as the world's largest millennial cohort. Remarkably diverse in linguistic, regional, caste, gender, and religious aspects, this diversity presents both advantages and disadvantages, contributing to their cohesiveness as a group.

Advantages and Fallacies regarding Indian Millennials: Demographic factors inevitably influence predictions about the growth and prosperity of any global economy, and India is no exception—especially amid the ongoing pandemic era.

#### **The millennial characteristics apart from the above diversifications are as follows:**

- (a) Potentially most disruptive generation
- (b) 28 yrs as median age and considered as youngest compared to other populated countries.
- (c) Better than three key economies of the world like the U.S., and China. And Japan.
- (d) Youngest among the top 10 world economies.
- (e) The end of 2021 could visualize two-thirds of India's population within the working age of 20 to 35 years.
- (f) Will be the world's largest labour force and market for goods and services.
- (g) Considered as an asset in the longer run when compared to other countries.

#### **Misconceptions Surrounding the Pandemic's Impact on Millennial Unemployment in India:**

Despite persistent optimism in the efficacy of the right education and investment, expectations of achieving high single or double-digit GDP growth persist. This belief is rooted in the potential of India's millennial working-age population to drive transformative economic growth, similar to their counterparts in East Asian countries.

#### **Fallacy Regarding Pre and Post-Pandemic Employment Impact in India:**

The experience of the Covid lockdown is not novel for either the Indian population or the global community. Despair has cast a shadow over all segments of Indian society, from top-tier industrialists to daily wage earners. The pandemic-

induced economic downturn has led to the evaporation of stable jobs, challenging the previously held belief in the resilience of certain occupations.

#### **Misconception about Structured Unemployment and Job Creation:**

Statistical evidence highlights a significant gap between qualifications and job opportunities, challenging the perception that stable employment is immune to disruption. The fallacy, akin to the Luddite Fallacy, attributes job losses to external circumstances rather than acknowledging the mismatch between qualifications and available positions.

#### **Job Creation Challenges Pre and Post-Pandemic:**

Even before the pandemic, job creation in India faced hurdles, raising concerns about the effectiveness of policies across various sectors. The pandemic, while a convenient scapegoat, cannot be solely blamed for the pre-existing issues in job creation.

#### **Dispelling Fallacies on Government's Role in Job Creation:**

Governments cannot worldwide predict pandemics and their subsequent impact on employment. The speed of societal changes, coupled with unpredictable disruptions, makes it impossible for any government to guarantee effective job creation. Mechanization and automation in government jobs further complicate the scenario, limiting opportunities for citizens.

#### **Paradox of Qualifications, Job Suitability, and Employability:**

The minimal changes in the Indian millennial attitude towards utilizing their skills and qualifications for employment challenge the perception that government jobs remain an attractive option. Despite the attractiveness of government positions, the qualifications sought do not align with the skills required, exacerbating the challenge of employability. The paradox lies in the mismatch between aspirations, qualifications, and the realities of the job market. The fallacy of Prioritizing education and literacy can create high qualification and higher-end jobs:

- 19 million millennials including engineers and MBA apply for 63,000 peon-level jobs in Indian Railways.
- Post-pandemic recovery the same qualified millennials have gone down to digging ditches as part of MGNREGA government schemes.
- Degrees of universities lacking quality or depth, to make employable millennials feel that their degrees can get jobs they want.
- Stable income jobs still exist only on paper and never on real terms.
- No thriving and just surviving is the fact of most of the Indian Villages.

The fallacy of economic security: More pressing than the challenge of unemployment is the economic insecurity faced by millennials, who continue to grapple with financial instability despite their advanced qualifications and skills. The ability to achieve financial independence and make autonomous decisions remains elusive. The prevailing issue of "educated unemployment" is widespread, even in large economies like India, where it is not acknowledged. In states such as Madhya Pradesh, the unemployment rate stands at a staggering 43%, affecting over 1.4 million local youths aged 20 to 29, with nearly 1.29 million of them holding degrees from prestigious universities.

India's overall unemployment average has soared to 16%, with a significant portion of it being disguised. The common thread weaving through these challenges includes jobless growth, a steep annual rise in the cost of living, and the swift globalization of the world. Global economic shifts, coupled with the advent of automation and algorithms replacing human roles and decision-making processes, are reshaping the employment landscape in India.

Contrary to the optimistic vision of a prosperous future for millennials, they find themselves on the defensive, facing a myriad of internal and external changes. This has created a vicious cycle hindering their ability to realize their dreams. The convergence of job market stagnation, escalating living costs, and the encroachment of technology are shaping a challenging reality for the millennial generation.

**The fallacy of Perceived Roadblocks:** While it is acknowledged that pandemics have induced a period of "economic insecurity," the prolonged lockdowns, surpassing initially projected durations, have resulted in a slower-than-anticipated recovery. Economies must adopt a proactive and robust approach to job creation and economic growth, treating the situation as a state of emergency rather than adopting a passive "wait-and-watch" stance for an ideal plug-and-play economic recovery model to materialize. No country's economy is currently comfortable in the prevailing circumstances. In response to the changing job landscape, Indian students are increasingly pursuing multiple degrees to align themselves with emerging opportunities in AI and technology, rather than adhering strictly to traditional university degree paths, a trend that is not yet fully recognized. Training institutions such as finishing schools and coaching centres should prioritize skill-based training over general education, emphasizing the development of hard-core technical skills that align with the requirements of specific industries. This approach ensures that individuals possess the necessary skill set to secure employment in their desired industrial sectors.

## GLOBAL LABOUR MARKET INDICATORS BEFORE COVID-19

*Working-age population: 5.7 billion*

2 billion informal (35%)

1.3 billion formal (22%)

Employed: 3.3 billion (57%) Out of labour force: 2.3 billion (39%)

Total labour  
underutilization:  
473 million

Time-related  
Underemployment:  
165 million (35%)

Unemployed: 188  
million (40%)

Potential labour force:  
119 million (25%)

Youth working-age population (15-24 years): 1.2 billion

**Misconceptions Regarding Educational Investments:** A prevalent fallacy exists among both rural and urban middle-class families in India, particularly in tier II and tier III cities. Many families invest their savings in degrees and diplomas for their children, expecting future benefits. However, this investment often falls short as rapid technological advancements render acquired skills obsolete within a short span. The evolving job landscape demands continuous adaptation, leading to a disconnect between educational investments and practical employment outcomes.

**Flawed Perception of Stable Private Sector Employment:** The global job market predominantly relies on job creation in the private sector, particularly for millennials, who constitute a significant workforce. Economic empowerment must align with overall sectoral growth to ensure that the entire millennial population can access and contribute to the nation's resources effectively. This interdependence is crucial for sustainable development.

**Examining the Real Scenario: Overlooking Compensation Effects**

An overlooked aspect is the compensational impact on the workforce and the economy. Drawing from Marx's compensation theory of the 1820s, it counters arguments of job losses due to technological innovation. Compensational effects encompass various elements such as introducing new technology, innovative methods, machinery, investment practices, wage policies, cost reduction, and novel work or product approaches.

### **5. Findings, Analysis, and Conclusion :**

The metastatic progress of compensational effects challenges the aforementioned fallacies, prompting an exploration into the existence of compensational effects, Pareto improvement, or laissez-faire. Evaluating the post-pandemic employment scenario reveals figures that surpass the impact of the Great Recession, with 40 million global unemployment benefit claims post-COVID-19. Governments are addressing this crisis, creating new types of work. Despite initial gloom, compensational effects have played a significant role, resulting in the creation of jobs such as



contact tracers, temperature takers, health monitors, and associated research tasks. These examples underscore the adaptability of the job market and provide hope for a more optimistic employment landscape.

### **Workplace re-designers or ergonomic designers for office spaces.**

The booming areas like those said above have compensated with new jobs and skills related to the Professions such as contact tracers, temperature takers, health monitors, and workplace redesigners are currently experiencing a surge in demand. These emerging roles not only necessitate new skill sets but also create diverse opportunities to support individuals from various backgrounds. Governments are tapping into professionals with transferable skills to bolster public health monitoring efforts. The demand for safety-related positions is expected to persist indefinitely, given the enduring prevalence of the "new normal" in work life, characterized by stringent health protocols and a blend of multi-modal and flexible work options.

Amidst these challenges and opportunities, Edu-Tech companies globally have capitalized on the situation by introducing novel job roles and innovative learning options. This has resulted in a broad spectrum of job opportunities, spanning from entry-level to top-tier positions. Corporate and educational institutions seeking provisions to adapt to the evolving landscape have significantly contributed to the creation of jobs in emerging fields, albeit with the prerequisite of acquiring demanding skill sets, indirectly fueling the growth of the training industry.

The "pandemic luddite" analogy has materialized in the form of various working modes, significantly impacting workforce requirements and employability. McKinsey reported a 70% reduction in office space usage globally in 2020. The demand for physical spaces, including restaurants, has diminished worldwide due to the growing preference for open spaces, influenced by the psychological impact of the pandemic and the desire for "fresh air spaces." Virtual transactions, such as telemedicine, online banking, and online doctor consultations, have witnessed a tenfold increase in demand, creating job opportunities for young technical specialists. The digital transformation has also led to substantial growth in virtual transactions in industrial sectors like delivery, transportation, and warehousing.

Upskilling, reskilling, and ensuring the right skill sets have become crucial for employees across different cadres. Training demands have shifted towards a combination of hard skills, soft skills, cognitive skills, and social and emotional components. Research indicates a decline in demand for physical and manual skills by 2.2 percentage points, while technological skills are expected to increase by 3.3 percentage points. Notably, 68% of time spent on middle-wage skills accounts for 48% of required skills, with the most disadvantaged workers facing significant job transitions.

The evolving labour trends are influenced by skill development initiatives. Companies like Walmart, Amazon, and IBM are leading in retraining efforts, emphasizing the remote work opportunity to enrich diversity and access talent previously concentrated in specific locations. Europe has made substantial investments, such as £7 billion to enhance the skills of nearly 700,000 automotive workers and \$100 million to improve the skills of non-college-educated black workers (source: "Where the jobs are: An inside look at our new Future of Work research" from McKinsey's New at McKinsey blog).

### **6. Conclusion:**

The concerns raised by Luddites regarding the temporary loss of their jobs tend to be exaggerated, often magnifying isolated incidents into significant employment downturns. In reality, these job losses are typically transitional, reflecting shifts in job execution methods or skill requirements. Historical examples, such as the Luddite movement in 1800s Britain, illustrate this phenomenon. Many agricultural farmers opposed labour-saving technology, fearing widespread job losses as machines were introduced for faster food production. However, the introduction of machinery also led to the creation of jobs in manufacturing agricultural equipment, a facet the Luddites failed to anticipate.

Research literature highlights that the Luddite fallacy persists, as technological advancements often result in unforeseen job opportunities. For instance, the advent of computers and robots in manufacturing processes, aimed at reducing the need for human labour, has paradoxically led to the production of vast quantities of goods. This surge in production has, in turn, stimulated job growth in the service sector. The ability of technological changes to generate alternative job opportunities can significantly contribute to economic growth, dispelling the notion that such advancements inevitably lead to increased unemployment.

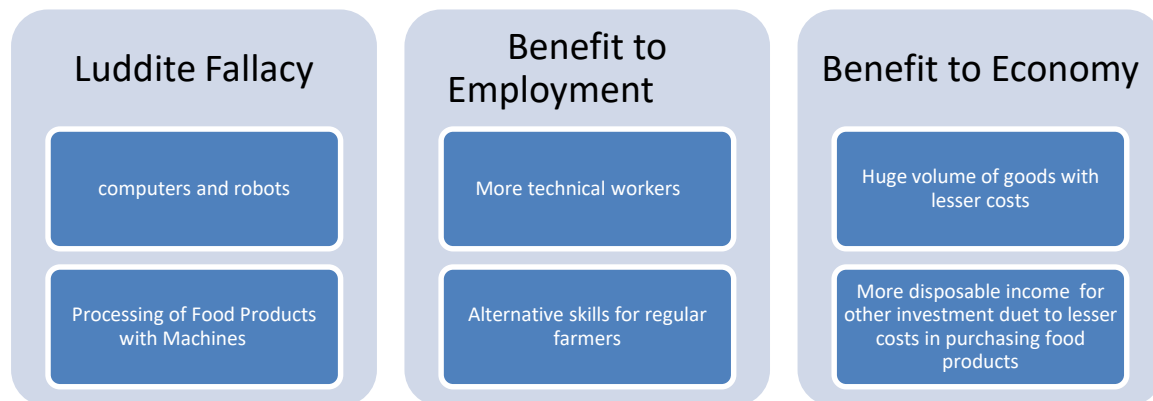


Figure: 5: Luddite Fallacy Impact on the Benefits to Employment and Economy and its contribution: Developed by Prof Dr.C.Karthikeyan

Post-pandemic, safety-related roles have seen a surge in demand for jobs that assist individuals navigating quarantine and social distancing challenges, focusing on risk mitigation. The para-medical sector has witnessed a remarkable spike, with approximately 800 occupations falling into 10 distinct categories:

1. Temperature Screeners
2. Nursing Staff for Testing Jobs
3. PPE Designers
4. Care Giving Specialists
5. Health Advisors
6. Pharmacists
7. Lab Technicians
8. On-Site Customer Care
9. Remote Working Tools

In addition to these roles, China alone has experienced a substantial increase of 5.1 million social media jobs. The dominant sectors, as highlighted by the McKinsey report, include e-commerce delivery systems. Automation, AI, and robotics have played a pivotal role in the growth of these industries, transforming work processes and reducing job shares in routine tasks. Warehouses, grocery stores, call centres, and manufacturing plants are witnessing a rise in job creation, particularly in positions related to AI. Contrastingly, customer service and food service jobs have declined by 4.3 million in countries like the United States. However, the transportation sector has experienced significant growth, with nearly 800,000 new jobs. The demand for workers in healthcare and STEM occupations is expected to surpass pre-pandemic levels due to increased focus on health and technological advancements. While pre-pandemic net job losses primarily affected middle-wage occupations in the manufacturing sector, the current concern revolves around the decline of low-wage jobs. Proactive measures are essential to address this, as around 100 million workers (1 in 16) may need to explore alternative occupations by 2030. Economic superpowers are not immune to these challenges. Positive employment remains a priority, necessitating compensational effects to counteract perturbations in employment scenarios. Creating regular and sustainable employment opportunities requires the right policies built on existing normative frameworks, with a human-centered approach to crisis recovery. Governments worldwide must invest in skills and adopt inclusive digitalization to revive economies and prepare for future crises. Despite positive reactions from policymakers during lockdowns, these measures had a devastating impact on already weakened or growing economies. Approximately 94 per cent of the global workforce faced restrictions, leading to a Luddite mindset during the recovery stages. Urgent action is needed to create jobs, invest in skills, and build a resilient socio-economic system, ensuring vibrant economies in the face of future pandemics or lockdowns.

## REFERENCES :

1. The execution of George Mellor, William Thorpe & Thomas Smith". The Luddite Bicentenary - 1811-1817. 8 January 2013. Retrieved 10 October 2020 – via ludditebicentenary.blogspot.com.
2. "Destruction of Stocking Frames, etc. Act 1812" at books.google.com
3. "Historical events – 1685–1782 | Historical Account of Newcastle-upon-Tyne (pp. 47–65)". British-history.ac.uk. 22 June 2003. Retrieved 4 October 2013.
4. "Historical events – 1685–1782 | Historical Account of Newcastle-upon-Tyne (pp. 47–65)". British-history.ac.uk. 22 June 2003. Retrieved 4 October 2013.

5. "Lord Byron and the Luddites | The Socialist Party of Great Britain". [www.worldsocialism.org](http://www.worldsocialism.org). Archived from the original on 24 June 2016. Retrieved 22 November 2016.
6. "Luddite". Compact Oxford English Dictionary at AskOxford.com. Accessed 22 February 2010.
7. "Luddites in Marsden: Trials at York". Archived from the original on 26 March 2012. Retrieved 12 May 2012.
8. "The Luddites 1811-1816". [www.victorianweb.org](http://www.victorianweb.org). Retrieved 22 November 2016.
9. "The National Archives Learning Curve | Power, Politics and Protest | the Luddites". The National Archives. Retrieved 19 August 2011.
10. "The National Archives Learning Curve | Power, Politics and Protest | the Luddites". The National Archives. Retrieved 19 August 2011.
11. "Who were the Luddites?". History.com. Retrieved 12 December 2016.
12. "Who were the Luddites?". History.com. Retrieved 12 December 2016.
13. "Workmen discover secret chambers". BBC News. Retrieved 31 December 2012.
14. Anstey at Welcome to Leicester ([visitoruk.com](http://visitoruk.com)) According to this source, "A half-witted Anstey lad, Ned Ludlam or Ned Ludd, gave his name to the Luddites, who in the 1800s followed his earlier example by expressing violence against machinery in protest against the Industrial Revolution." It is a known theory that Ned Ludd was the group leader of the Luddites.
15. Anstey at Welcome to Leicester ([visitoruk.com](http://visitoruk.com)) According to this source, "A half-witted Anstey lad, Ned Ludlam or Ned Ludd, gave his name to the Luddites, who in the 1800s followed his earlier example by expressing violence against machinery in protest against the Industrial Revolution." It is a known theory that Ned Ludd was the group leader of the Luddites.
16. Archer, John E. (2000). "Chapter 4: Industrial Protest". *Social unrest and popular protest in England, 1780–1840*. Cambridge University Press. ISBN 978-0-521-57656-7.
17. Autor, D. H.; Levy, F.; Murnane, R. J. (1 November 2003). "The Skill Content of Recent Technological Change: An Empirical Exploration". *The Quarterly Journal of Economics*. 118 (4): 1279–1333. doi:10.1162/003355303322552801. hdl:1721.1/64306. Archived from the original on 15 March 2010.
18. Autor, D. H.; Levy, F.; Murnane, R. J. (1 November 2003). "The Skill Content of Recent Technological Change: An Empirical Exploration". *The Quarterly Journal of Economics*. 118 (4): 1279–1333. doi:10.1162/003355303322552801. hdl:1721.1/64306. Archived from the original on 15 March 2010.
19. Bailey, Brian J (1998). *The Luddite Rebellion*. NYU Press. ISBN 0-8147-1335-1.
20. Beckett, John. "Luddites". The Nottinghamshire Heritage Gateway. Thoroton Society of Nottinghamshire. Retrieved 2 March 2015.
21. Binfield, Kevin (2004). *Luddites and Luddism*. Baltimore and London: The Johns Hopkins University Press.
22. Binfield, Kevin (2004). *Luddites and Luddism*. Baltimore and London: The Johns Hopkins University Press.
23. Binfield, Kevin (2004). *Writings of the Luddites*. JHU Press. ISBN 0-8018-7612-5.
24. Byrne, Richard (August 2013). "A Nod to Ned Ludd". *The Baffler*. 23 (23): 120–128. doi:10.1162/BFLR\_a\_00183. Retrieved 6 November 2018.
25. Byrne, Richard (August 2013). "A Nod to Ned Ludd". *The Baffler*. 23 (23): 120–128. doi:10.1162/BFLR\_a\_00183. Retrieved 6 November 2018.
26. Chambers, Robert (2004), *Book of Days: A Miscellany of Popular Antiquities in Connection with the Calendar, Part 1*, Kessinger, ISBN 978-0-7661-8338-4, p. 357
27. Chambers, Robert (2004), *Book of Days: A Miscellany of Popular Antiquities in Connection with the Calendar, Part 1*, Kessinger, ISBN 978-0-7661-8338-4, p. 357
28. Charles Wilson, *England's Apprenticeship, 1603-1763* (1965), pp. 344–45. PRO, SP 36/4/22.
29. Clancy, Brett (October 2017). "Rebel or Rioter? Luddites Then and Now". *Society*. 54 (5): 392–398. doi:10.1007/s12115-017-0161-6. ISSN 0147-2011. S2CID 148899583.
30. Clancy, Brett (October 2017). "Rebel or Rioter? Luddites Then and Now". *Society*. 54 (5): 392–398. doi:10.1007/s12115-017-0161-6. ISSN 0147-2011. S2CID 148899583.
31. Conniff, Richard (March 2011). "What the Luddites Fought Against". *Smithsonian*. Retrieved 19 October 2016.
32. Conniff, Richard (March 2011). "What the Luddites Fought Against". *Smithsonian*. Retrieved 19 October 2016.
33. Dinwiddy, J.R. (1992). "Luddism and Politics in the Northern Counties". *Radicalism and Reform in Britain, 1780–1850*. London: Hambledon Press. pp. 371–401. ISBN 9781852850623.
34. Elizabeth Gaskell: *The Life of Charlotte Bronte, Vol. 1, Ch. 6*, for a contemporaneous description of the attack on Cartwright.
35. For more information, see the ILO NORMLEX database and SDG Indicator 8.8.2. on level of compliance with labour rights (freedom of association and collective bargaining)
36. Fox, Nicols (2003). *Against the Machine: The Hidden Luddite History in Literature, Art, and Individual Lives*. Island Press. ISBN 1-55963-860-5.
37. Francois Crouzet, *Britain Ascendant* (1990) pp 277–279.
38. Geoffrey of Monmouth, *Historia Regum Britanniae* 3.20
39. Grint, Keith & Woolgar, Steve (1997). "The Luddites: Diablo ex Machina". *The machine at work: technology, work, and organization*. Wiley-Blackwell. ISBN 978-0-7456-0924-9.

40. Harrison, J. F. C. (1984). *The Common People: A History from the Norman Conquest to the Present*. London, Totowa, N.J.: Croom Helm. pp. 249–53. ISBN 0709901259. OL 16568504M.
41. Hobsbawm 1952, p. 58: "The 12,000 troops deployed against the Luddites greatly exceeded in size the army which Wellington took into the Peninsula in 1808."
42. Hobsbawm, E. J. (1952). "The Machine Breakers". *Past & Present*. 1 (1): 57–70. doi:10.1093/past/1.1.57.
43. *Huddersfield Exposed - William Horsfall (1770-1812)*.
44. ILO, 2018. *Care work and care jobs for the future of decent work*
45. ILO, 2018. *Social protection for older persons: Policy trends and statistics 2017–19 and ILO, 2017. World Social Protection Report*.
46. ILO, 2019. *Centenary Declaration for the Future of Work*.
47. ILO, 2020. *Beyond contagion or starvation: Giving domestic workers another way forward*.
48. ILO, 2020. *COVID-19 crisis and the Informal Economy: Immediate Responses and policy challenges*
49. ILO, 2020. *COVID-19 cruelly highlights inequalities and threatens to deepen them*.
50. ILO, 2020. *International Labour Organization (ILO) COVID-19 Monitor, 4th Edition, 27 May 2020* ILO, 2020.
51. ILO, 2020. *International Labour Organization (ILO) Monitor: COVID-19 and the world of work, 1st Edition, 18 March 2020*. 19 ILO, 2020. *Sectoral Brief – COVID-19 and the tourism sector*.
52. ILO, 2020. *International Labour Organization (ILO) Monitor: COVID-19 and the world of work, 3rd Edition, 29 April 2020*.
53. ILO, 2020. *International Labour Organization (ILO) Monitor: COVID-19 and the world of work, 3rd Edition, 29 April 2020*.
54. ILO, 2020. *International Labour Organization (ILO) Monitor: COVID-19 and the world of work, 4th Edition, 27 May 2020*
55. ILO, 2020. *Protecting migrant workers during the COVID-19 pandemic: Recommendations for Policy-makers and Constituents; UN Policy Brief on People on the Move*
56. ILO, 2020. *Protecting migrant workers during the COVID-19 pandemic: Recommendations for Policy-makers and Constituents*
57. ILO, 2020. *Sectoral Brief – COVID-19 and the tourism sector*.
58. ILO, 2020. *Women health workers: Working relentlessly in hospitals and at home*
59. ILO, 2029. *Small Matters, global evidence on the contribution to employment by the self-employed, micro-enterprises and SMEs*.
60. ILOSTAT, <https://ilostat.ilo.org/>
61. ILOSTAT, <https://ilostat.ilo.org/>
62. ILOSTAT, <https://ilostat.ilo.org/>
63. ILOSTAT, <https://ilostat.ilo.org/>
64. ILOSTAT, <https://ilostat.ilo.org/> 12 ILO, 2020. *International Labour Organization (ILO) COVID-19 Monitor, 4th Edition, 27 May 2020*.
65. ILOSTAT, <https://ilostat.ilo.org/>.
66. IMF, 2020. *Tracking the \$9 Trillion Global Fiscal Support to Fight COVID-19. THE WORLD OF WORK AND COVID-19* 27 41 ILO. 2020. *Social Protection Responses to the COVID-19 Pandemic in Developing Countries: Strengthening Resilience by Building Universal Social Protection*.
67. *International Labour Organization (ILO) COVID-19 Monitor, 2nd Edition, 7 April 2020* 3 ILO, 2020.
68. ITUC, 2019. *ITUC global rights index*. <https://www.ituc-csi.org/IMG/pdf/2019-06-ituc-global-rights-index-2019-report-en-2.pdf>
69. Jerome, Harry (1934). *Mechanization in Industry*, National Bureau of Economic Research. pp. 32–35.
70. Jones, Steven E. (2006). *Against technology: from the Luddites to Neo-Luddism*. CRC Press. ISBN 978-0-415-97868-2.
71. Linton, David (Fall 1992). "THE LUDDITES: How Did They Get That Bad Reputation?". *Labor History*. 33 (4): 529–537. doi:10.1080/00236569200890281. ISSN 0023-656X.
72. Lord Byron, *Debate on the 1812 Framework Bill*, Hansard, [http://hansard.millbanksystems.com/lords/1812/feb/27/framework-bill#S1V0021P0\\_18120227\\_HOL\\_7](http://hansard.millbanksystems.com/lords/1812/feb/27/framework-bill#S1V0021P0_18120227_HOL_7)
73. McGaughey, Ewan (2018). "Will Robots Automate Your Job Away? Full Employment, Basic Income, and Economic Democracy". *ssrn.com*. SSRN 3044448.
74. Merchant, Brian (2 September 2014). "You've Got Luddites All Wrong". *Vice*. Retrieved 13 October 2014.
75. Merchant, Brian (2 September 2014). "You've Got Luddites All Wrong". *Vice*. Retrieved 13 October 2014.
76. *More data relating to the world of work pre-COVID-19 can be found at World Employment and Social Outlook - Trends 2019* [https://www.ilo.org/global/research/global-reports/weso/2019/WCMS\\_670542/lang--en/index.htm](https://www.ilo.org/global/research/global-reports/weso/2019/WCMS_670542/lang--en/index.htm)
77. *Murder of William Horsfall - Newspaper report on the murder of William Horsfall*
78. OECD 2020. *SME Policy Responses* 26 OECD 2020. *SME Policy Responses*.
79. Palmer, Roy, 1998, *The Sound of History: Songs and Social Comment*, Oxford University Press, ISBN 978-0-19-215890-1, p. 103
80. Palmer, Roy, 1998, *The Sound of History: Songs and Social Comment*, Oxford University Press, ISBN 978-0-19-215890-1, p. 103

81. Pynchon, Thomas (28 October 1984). "Is It OK to Be a Luddite?". *The New York Times*.
82. R. F. Wearmouth, *Methodism and the Common People of the Eighteenth Century*. (1945), esp. chs. 1 and 2.
83. R. F. Wearmouth, *Methodism and the Common People of the Eighteenth Century*. (1945), esp. chs. 1 and 2.
84. Rachel Bromwich (ed.), *Trioedd Ynys Prydein* (Cardiff, 1991; 1991), s.v. 'Lludd fab Beli'.
85. Rachel Bromwich (ed.), *Trioedd Ynys Prydein* (Cardiff, 1991; 1991), s.v. 'Lludd fab Beli'.
86. Randall, Adrian (2002). *Before the Luddites: Custom, Community and Machinery in the English Woollen Industry, 1776–1809*. Cambridge University Press. ISBN 978-0-521-89334-3.
87. Reputation?". *Labor History*. 33 (4): 529–537. doi:10.1080/00236569200890281. ISSN 0023-656X.
88. Robert Featherstone Wearmouth (1945). *Methodism and the common people of the eighteenth century*. Epworth Press. p. 51. Retrieved 21 April 2013.
89. Robert Featherstone Wearmouth (1945). *Methodism and the common people of the eighteenth century*. Epworth Press. p. 51. Retrieved 21 April 2013.
90. Roger Knight, *Britain Against Napoleon* (2013), pp 410–412.
91. Rude, George (2001). *The Crowd in History: A Study of Popular Disturbances in France and England, 1730–1848*. Serif.
92. Rude, George (2001). *The Crowd in History: A Study of Popular Disturbances in France and England, 1730–1848*. Serif.
93. Rude, George (2005). "Chapter 5, Luddism". *The Crowd in History, 1730–1848*. Serif. ISBN 978-1-897959-47-3.
94. Sale, Kirkpatrick (1 February 1997). "America's New Luddites". *Le Monde diplomatique*. Archived from the original on 30 June 2002.
95. Sale, Kirkpatrick (1995). *Rebels against the future: the Luddites and their war on the Industrial Revolution: lessons for the computer age*. Basic Books. ISBN 0-201-40718-3.
96. Sharp, Alan (4 May 2015). *Grim Almanac of York*. The History Press. ISBN 9780750964562.
97. Simple average of the shares of total value added per sector.
98. Summer D. Leibensperger, "Brandreth, Jeremiah (1790–1817) and the Pentrich Rising." *The International Encyclopedia of Revolution and Protest* (2009): 1-2.
99. The COVID-19 response: Getting gender equality right for a better future for women at work.
100. THE WORLD OF WORK AND COVID-19 17 World Bank, 2020. The impact of COVID-19 (Coronavirus) on global poverty: Why Sub-Saharan Africa might be the region hardest hit.
101. This brief is part of a series that covers a range of issues of global relevance in the context of COVID-19. This includes thematic briefs and regional briefs where complementary data and analysis can be found. See <https://www.un.org/en/coronavirus/un-secretary-general>
102. Thomas, Malcolm (1970). *The Luddites: Machine Breaking in Regency England*. Shocken.
103. Thomas, Malcolm (1970). *The Luddites: Machine Breaking in Regency England*. Shocken.
104. Thompson, E. P. (1991). *The Making of the English Working Class*. Penguin Books. ISBN 978-0-14-013603-6. Archived from the original on 6 October 2014. Retrieved 16 November 2014.
105. UN. 2020. Shared responsibility, global solidarity: Responding to the socio-economic impact of COVID-19; UN, 2020. Policy Brief: The Impact of COVID-19 on Women, People with disabilities, Older people, and People on the Move.
106. UNDP, 2020, COVID-19 and Human Development: Assessing the Crisis, Envisioning the Recovery. Notes
107. UNDP, 2020. UNDP Briefing Note Gender COVID-19. April 2020.
108. United Nations, *Disability and Development Report, Realizing the Sustainable Development Goals by, for and with persons with disabilities*, 2018 <https://www.un.org/development/desa/disabilities/publication-disability-sdgs.html>
109. United Nations, Letter from the Secretary-General to the G-20, 23 March 2020, <https://www.un.org/sg/en/content/sg/note-correspondents/2020-03-24/note-correspondents-letter-the-secretary-general-g-20-members>
110. United Nations. 2020 *The Impact of COVID-19 on Older Persons*'.