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# Robotization and Welfare Trends in Future

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## Abstract

There are concerns over the present and possible future impact of new advancements like robots and artificial intelligence on welfare. Experts from different fields including science and business have been concentrating on how new developments may affect the job market, and more broadly how new advancements will influence the society. It would be easy to get support for the use of robots for the tasks which are too difficult or too dangerous for humans. What is the capital owners' focus at that point? What are the economic and social consequences of robotization? In this chapter, literature review including the recent thoughts on how developments in robotics may cause major changes in welfare distribution and revolutionary economic changes is presented.

**Keywords:** robots, personal economy, robotics, economic effect of robotics, welfare trends, unconditional basic income (UBI), guaranteed minimum income (GMI), industry 4.0, skill premia, skill-biased technical change (SBTC), polarization

## 1. Introduction

The new World Robotics report indicates that more than 2.4 million robots are working in manufacturing lines. The robot sales amount is around 16.5 billion USD. As indicated by The International Federation of Robotics (IFR) public statement on Feb 19, 2020 from 2020 to 2022 right around 2 million new units of robots are relied upon to be introduced in industrial facilities around the globe [1].

Robotics technology developed majorly from 1990 to 2000s, especially with an increase in the number of industrial robots in the United States and Western Europe from 1993 to 2007. In the United States, the rise numbered to one new robot per 1000 workers, and in Western Europe to 1.6 new robots per 1000 workers. The automotive industry utilizes the major part of it by 38% of existing robots, then the electronics industry follows it by 15% and the plastics and chemicals industry follows it by 10% and lastly metal products industry by 7%. Acemoglu theoretically found that robots can decrease employment and wages and that their local effects can be evaluated utilizing variety in exposure to robots—defined from industry-level advances in robotics and local industry employment. It is assessed that the relevant field most threatened by robots after 1990 does not exhibit any differential trends before then, and robots' effect is separated from other capital and technologies. One more robot per 1000 workers decreases the employment-to-population ratio by 0.2% and wages by 0.42% [2].

The 47% of laborers in USA will be exposed to risk of losing their employment as indicated by Frey and Osborne [3] study including characterization of

702 occupations dependent on its degree of lack of protection against automation. Other supporting report has been published by the World Bank assesses that 57% of professions in the OECD could be robotized all through the upcoming two decades [4, 5].

Frey and Osborne [3] foresees a shortening of the current trend toward labor market polarization; computerization is mainly related to low skills and low paid professions. Their findings imply that, as technology advances, low experienced labors will redistribute assignments that are not delicate to computerization. Frey and Osborne [3] divide between high, medium, and low risk professions based on the possibility of computerization. According to the study, about 47% of total US employment is in the high risk category [6].

Expanding on the evaluation performed by Frey et al., other investigation assesses the effect of robotization for the OECD including 32 nations that have partaken in the survey of adult skills. It infers that 14% of occupations in OECD would be profoundly controlled by automation (i.e., likelihood of computerization of over 70%). More than 66 million employees from 32 different countries included in Frey's study. According to the study, another 32% of occupations have a danger of somewhere in the range of 50–70% highlighting the chance of huge change in the manner these jobs are fulfilled due to robotization. For example, a critical portion of errands, yet not all, could be robotized, changing the expertise prerequisites for the employments [7–9].

We may see the development of new instruction programs, especially an expansion in computer generated reality gaming-based training and particularly in coding. Be that as it may, this will be tempered by the rise of AI/apply autonomy moving into the information segment, which can possibly prompt the disappearing of expert class, non-administrative desk occupations. Simultaneously, mechanical autonomy will move forcefully into sensor-based, world-route occupations like transportation. We may require a crucial reshaping of our economy and may not give educating/training individuals for occupations that are just not going to be there. And also recent studies found that high levels of anxiety about robotization and automation indicate the broad concerns about their outcomes [7].

It turns out a considerable amount of vulnerability and contention remains. In this chapter, the recent thoughts on how AI and robotics may cause major changes in welfare distribution and revolutionary employment changes will be summarized by a literature review.

## 2. Literature review

In the study, we will look at two main topics, the first is literature about robotization and its effect on employment and the second is possible future welfare distribution models.

### 2.1 Robotization and unemployment

In this area, the academics are divided into two poles, one pole assumes that the firm-level adoption of robots causes a decrease in labor shares, rises in added value and productivity, and reduces the share of production workers. Especially in industrial sectors which are specialized in routine activities are more likely to face substantial decreases in the labor share. Some of the studies theorize that new changes in automation, robotics, and artificial intelligence (AI) might pave the way for broad unemployment. All types of occupations from lawyers to truck drivers will be permanently tumbled. Companies will be forced to change or expire. The

latest economic signals also reflect this trend; less people are employed, and wages are declining even as productiveness and earnings rise. The list below includes the academicians whose articles associated the robotization and automation to increase in unemployment.

Robotization effects on employment	
Studies	Dimensions/ideas
Acemoglu [10]	Skill premia/skill-biased technical change (SBTC)
Acemoglu and Restrepo [2]	SBTC/polarization/ICT
Acemoglu and Restrepo [11]	The displacement effect
Acemoglu and Restrepo [2]	Robotization/unemployment
Acemoglu et al. [12]	Robotization/unemployment
Autor and Dorn [13]	SBTC/polarization/ICT
Autor et al. [14]	SBTC/polarization/ICT
Autor [15]	Polarization
Autor et al. [16]	SBTC/polarization/ICT
Autor et al. [14]	SBTC/polarization/ICT
Berman et al. [17]	SBTC/polarization/ICT
Brynjolfsson and McAfee [18]	Robotization/unemployment/structural changes
Brynjolfsson et al. [10]	The “capital deeping” with robotization
Dao et al. [19]	SBTC/routinized job industry based
Frey and Osborne [3]	Robotization/unemployment
Goos and Manning [20]	SBTC/polarization/ICT
Goos et al. [21]	SBTC/polarization/ICT
Graetz and Michaels [22]	SBTC/polarization/ICT
Gregg and Manning [23]	Wage inequality/SBTC
Huang and Rust [24]	Artificial intelligence (AI)/unemployment
Krusell et al. [25]	SBTC/polarization/ICT
Goos et al. [21]	Polarization
Michaels et al. [26]	SBTC/polarization/ICT
Nedelkoska and Quintini [9]	Robotization/unemployment
Sachs and Kotlikoff [27]; Benzel et al. [28]	SBTC/polarization/ICT
Sachs and Kotlikoff [27]; Benzell et al. [28]	Robotization/unemployment/structural changes
Sachs et al. [9]	Robotization/unemployment
Susskind and Susskind [29]	Robotization/unemployment
Van Reenen [30]	Wage inequality/SBTC/polarization
Wolter et al. [31]	5-step scenario transformation to Industry 4.0

As can be seen above, the dimensions that are studied related with robotization and employment, is listed as skill-biased technical change, polarization, wage inequality, and skill premia. Skill premia can be described as the relative wage of high-skilled workers to low-skilled workers and according to Brynjolfsson and McAfee [18, 32], it has risen over most of the second half of the last century, despite large increases in the supply of high-skilled workers. Acemoglu [10] developed a

model to explore how skill premia changes by time and between countries and how it work on this framework to see the effect of foreign commerce on wage inequality. Skill premia is regulated by technology and the supply of skills. Skill-biased technical change (SBTC) can be described as a transfer in the manufacturing technology that prefer competent over incompetent employees by increasing its relative productivity and, therefore, its relative demand. In the literature, SBTC has been studied for several years in that the productivity of more competent workers has risen more faster than that of incompetent workers. This SBTC has been getting quite high recognition due to its relation with increasing wage inequality. Gregg and Manning [23] concluded that when workers are paid according to their productiveness, alteration in productivity reflects revision in wages, and the labor market position of the incompetent workers will continue to fall apart and disappear. Goos et al. [21] studied the job polarization (JP) within-industry and between-industry components empirically and concluded that the employment design in Western Europe has been polarizing with increasing employment proportions for well-paid occupations and supervisors and also flat-salaried service employees and increasing unemployment shares of manufacturing and routine office employees. The JP is a kind of technological change, favoring toward exchanging employees who are doing routine tasks and then the tasks are offshored and both polarization and offshoring create a decline in the demand for average-skilled workers relative to competent workers and incompetent occupations.

Acemoglu [2] contemplated a few sources including a survey by the Ministry of Industry, information provided by French robot suppliers in addition to list of clients, customs data on imports of industrial robots by firm, and the French fiscal files and developed theoretical expectations about adoption of robots for French assembling companies and examine the level ramifications of robot usage. Out of 55,390 firms in their study, 598 have received robots somewhere in the range of 2010 and 2015. Their study indicated that how companies alter their manufacturing system, recruitment, work force portions, and productiveness as they embrace automation technologies that can help us to better understand the wide-ranging effects of automation. Nevertheless, company-level effects do not correspond to the overall impact of automation because firms that adopt such technologies decline the costs and broaden at the expense of competitors. Acemoglu [2] predicts that French manufacturing firms that embrace robots not only decrease their work force portion and percentage of manufacturing laborer and rise their productivity but also expand their operations and employment. Yet, this is more than offset by significant declines in their competitors' employment. Generally speaking, despite the fact that organizations receiving robots extend their work, the market-level ramifications of robot appropriation are not positive. They also declare that robot acceptance commits to the decrease in the production work force portion by decreasing the covariance between firm-level value added and labor share, and this is because adopters are large and enlarge further as they observe sizable relative decreases in their work force portions. The 20% rise in robot adopting is resulted with a 3.2% increase in industry unemployment [12].

Acemoglu and Restrepo started a framework published in 2019, according to the heart of their framework is the fundamental thought that computerization and along these lines AI and mechanical technology supplant laborers in undertakings that they recently performed, and by means of this channel, make an incredible "The displacement effect." As opposed to assumptions in a lot of macroeconomics and financial matters, which keep up that profitability upgrading innovations consistently increment in general work request, the relocation impact can diminish the interest for work, wages, and business. In addition, the "displacement effect" infers that increments in yield per specialist emerging from robotization will not bring

about a relative development of the interest for work. The removal effect causes a decoupling of wages and yield per laborer and a decrease in the portion of work in national salary.

Acemoglu et al. [12] at that point feature a few countervailing powers that push against the uprooting impact and may infer that computerization, AI, and apply autonomy could build labor demand. First, the replacement of modest machines for human work makes an “efficiency impact”: as the expense of delivering mechanized assignments decays, the economy will grow and expand the interest for work in nonautomated errands. The efficiency effect could show itself as an expansion in the interest for work in similar areas experiencing robotization or as an expansion in the interest for work in nonautomating divisions.

Second, according to Acemoglu et al. [12], “capital aggregation” activated by expanded mechanization (which raises the interest for capital) will likewise raise the interest for work. Third, mechanization does not simply work at the broad edge—supplanting undertakings recently performed by work—yet at the escalated edge also, expanding the efficiency of machines in assignments that were recently robotized. This marvel, which we allude to as “deepening of automation,” makes an efficiency effect however no uprooting, and along these lines builds work request. Despite the fact that these countervailing impacts are significant, they are for the most part deficient to incite a “balanced growth path,” implying that regardless of whether these effects were incredible, continuous computerization would at present lessen the offer of work in national income (and potentially employment). Acemoglu et al. [12] contend that there is an all the more remarkable countervailing power that expands the interest for work just as the portion of work in national income: the formation of new undertakings, capacities, and exercises in which work has a near preferred position relative to machines. The production of new errands creates a restoration effect straightforwardly counterbalancing the displacement effect [12].

Sachs et al. [33] expect in their study that robots are not to help people in the study, however to supplant them totally. They concluded that the presentation of robots will help profitability in the short term, yet decline wages and utilization over the long haul. Sachs and Kotlikoff [27], expecting that “brilliant machines” supplant youthful and untalented yet favor old and talented work, locate that lone a generational arrangement can make the presentation of robots a gainful situation for the two ages. So also, Sachs et al. [33] contend for government redistribution in this situation to counter the “immiserization” of people in the future. Autor [34] reacts to these alerts by expressing that in these models “the key danger isn’t innovation essentially yet misgovernance”: it is not an issue of shortage of employments, but instead a distributional issue that robots undoubtedly make human work pointless. He contends that a fitting capital duty can assist with gaining innovative ground a government assistance improving procedure for all gatherings of laborers [27, 28, 34].

Robotization and advanced innovations all the more for the most part will empower little players, including people and little organizations, to attempt venture work that is currently before were done inside greater firms. The development of little and extremely enormous organizations could make a barbell-shaped economy, in which middle-sized organizations could miss out. It is not yet clear whether computerization could elevate rivalry, empowering firms to enter new zones outside their past center organizations and making a developing separation between mechanical pioneers and loafers in each area [35].

The skill premia (the general pay of high-talented specialists to low-gifted laborers) rise up the majority of the second 50% of the only remaining century, regardless of huge increments in the gracefully of high-gifted laborers. The end

was that there more likely than not been something like an SBTC which expanded the interest for high-talented laborers considerably more. Berman et al. [17] were among the frontier to examine the wellsprings of the consistently expanding skill premia. In a comparative vein, Krusell et al. [25] modeled an economy with an interdependent between a sort of capital and high-talented laborers. The kind of capital they have at the top of the priority list is Information and Communication Technology (ICT) capital. Krusell et al. [25] report that the cost of ICT capital has been falling for quite a long while. In this way, such a capital-ability interdependency, a fall in the cost of ICT capital will prompt an expanded reception in firms and consequently to an expanded interest for high-talented specialists to work these machines. Michaels et al. [26] affirm these discoveries with more up to date information: Sectors with higher development in ICT likewise had higher increments in the interest for high-gifted specialists and diminishes in the interest for center talented laborers. Spitz-Oener [36] secures that position necessities have been expanding in a similar time, for example, the extent of complex undertakings has been expanding. These adjustments in the assignment structure have additionally raised the interest for aptitudes in the labor market [25].

Dao et al. [19] discover that industrial sectors which had some expertise in routine exercises would in general experience bigger abatements in the labor share. Graetz and Michaels [22] use open data on robot use to measure the effects on labor profitability development, absolute factor productivity development, unit costs, and employment. Their disclosures show that robots increment labor efficiency development and all out profitability development however will in general reduce output price. While there is by all accounts no impact of robots use and complete business, they locate a negative effect of robots on the work portion of low-gifted specialists [22, 37].

In another investigation, Acemoglu and Restrepo [11] center around US nearby work markets. They join information from EU KLEMS and robot use to follow the impacts of expanded presentation to robots on neighborhood work markets from 1970 to 2007. As Graetz and Michaels [22], they find that the appropriation of robots prompts enormous and strong decreases in work and wages [38].

The movement of AI task substitution from lower to higher intellect (mechanical, scientific, instinctive, and sympathetic) brings about unsurprising movements after some time. As indicated by this view, scientific abilities will turn out to be less significant, as AI assumes control over progressively expository errands, giving the “milder” natural and sympathetic aptitudes considerably more significance for administration representatives. In the end, AI will be equipped for performing even the instinctive and compassionate undertakings, which empowers imaginative methods of human-machine incorporation for offering support yet in addition brings about a key risk for human employment [24, 39].

Other than work replacement, the innovative change is relied upon to influence the structure of employment much more than the degree of employment, something that would make a more polarized labor market between profoundly qualified and low-gifted occupations. An outcome, there would be progressively huge pay imbalances between the two posts.

A primary challenge for the eventual fate of work is related to adapting to rising disparity, as innovative change will generate the victors and failures and an expansion of the working poor [5, 21]. The some of studies concludes that innovation might be the single biggest supporter of the expansion in disparity of salary. This emerges on the grounds that organizations embrace advances at an alternate pace and have varying degrees of accomplishment with their AI and automated changes. Simultaneously, the robotization of laborers' exercises for capital drives down the work portion of pay [7, 35].

Until then some studies from pessimistic view are mentioned, but there are some other studies believe that robotization and employment can be complimentary. The optimistic studies are listed below:

Robotization effects on employment	
Studies	Dimensions/ideas
Autor [34]	The automation and labor are highly complementary
Arntz et al. [40]	Automation is hard to adapt/massive diversity of tasks/adaptability of jobs in the digital transformation
Autor and Salomons [41]	Own-industry, between-industry, cross-country, and final demand effects
Bresnahan et al. [42]	Skilled labor is complementary with a cluster of three distinct changes at the firm level: information technology, new work organization, and new products and services.
Doms et al. [43]	Skilled labor and ICT are complementary
Kurzweil [44]	Improvements in technology will yield greater opportunities
Mokyr et al. [45]	Innovations will result in unimaginable new occupations
Negroponte [46]	Borderless new era
Song [47]	Technology, will rid markets of inefficiency and propel humanity toward its fullest potential
Wolter et al. [31]	The Economy 4.0 scenario will create 1.5 million new jobs which will not exist
Zeira [48]	Increases capital requirements/highly productive countries will employ robotization

For example, Autor [34] identify in his study that the automation has not clear out a most of jobs instead, automation will substitute for labor—as it is typically intended to do. But, automation will also complement labor, increases output that create higher demand for labor, and responds to changes in labor supply. He believes that some studies lean to overestimate the context of robot backup for labor and forget the robust complementarities between robotization and labor that rise productivity, increase earnings, and boost demand for labor. Autor [34] also argue in his study that the polarization is doubtful to go very far into the anticipated future. Arntz et al. [40] demonstrates that these pessimistic scenarios are exaggerating the portion of automatable jobs by ignoring the massive diversity of tasks within jobs as well as the versatility of jobs in the digital transformation. In order to support their proposal, they used detailed task data and declared that, when taking into accounting the spectrum of tasks within jobs, the robotization risk of US jobs decrease from 38 to 9%. Earlier studies have produced by Doms et al. concluded that based on the skill-biased nature of ICT that indicate skilled labor and ICT are complementary [43].

Autor and Salomons [41] has also concluded that systematic view of four different channels of how robotization may affect the employee market; own-industry effects, between-industry, cross-country effects, and final demand effects. They stated that total factor productivity has negative direct effects on employment but positive indirect effects. In summary, the positive effects dominate and the long term outcome of robotization on employment is positive. They studied 24 OECD economies and stated that while displacing employment in the industries where it originates, automation generates indirect employment

growth in customer industries and rise in aggregate demand, finally bringing net employment growth [41].

Another optimistic study is made by Bresnahan et al. [42]; their study concluded that the competent labor is complementary with a group of three separate changes at the company level: information technology, new work organization, and new products and services.

In labor economics field, replacement of human work by AI and robots is fervently talked about. In any case, as indicated by Autor, robotization and mechanical advancement has not prompted the oldness of human work. Indeed, computerization and labor are exceptionally correlative and are partial to representatives that are versatile, ingenious, and arrangements situated [34].

Taking into account the former practices learned since the Industrial Revolution, Mokyr et al. argue that PCs and robots will make anew things and organizations and that these thing progressions will achieve impossible new occupations [45, 49].

### **3. Potential economic results of robotization and offered welfare models**

The financial change following quick robotization can be more difficult than the procedure we have illustrated for various reasons. Generally clear, robotization changes the idea of existing jobs, and the reallocation of laborers from existing employments and undertakings to new ones is a complex and frequently slow procedure. It requires some investment for laborers to find new openings and errands in which they can be profitable, and periods during which laborers are laid off from their current occupations can make a discouraged local or national labor market, further expanding the expenses of modification.

These impacts are noticeable in ongoing examinations that have concentrated on the change of nearby US work markets to negative interest stuns, for example, Autor [15], who study the moderate and exceptionally inadequate change of local labor markets in light of the flood in Chinese exports, Mian and Sufi [50], who explore the ramifications of the breakdown in housing costs on consumption and local employment. Acemoglu and Restrepo [11], who discover work furthermore, wage decreases in territories generally presented to one specific sort of computerization, the presentation of modern robots in assembling. The chronicled record additionally underscores the agonizing idea of the alteration.

The fast presentation of new advancements during the British Industrial Revolution eventually prompted rising work request and wages; however this was simply after an extended time of stale wages, growing destitution, and furthermore, unforgiving day to day environments. During an 80-year time frame reaching out from the start of the Industrial Revolution to the center of the nineteenth century, compensation deteriorated and the work share fell, even as innovative advances and efficiency development were progressing in the British economy, a wonder which Allen [51] names the “Engel’s delay.” There should in this manner be no assumption that the acclimation to the changed work advertise realized by fast computerization will be a consistent, costless, also, quick procedure. It is maybe telling that wages began developing in the nineteenth-century British economy simply after mass tutoring and different interests in human capital extended the aptitudes of the workforce.

So also, the acclimation to the huge flexibly of work liberated from agribusiness in mid twentieth-century. America may have been enormously supported by the “secondary school development,” which expanded the human capital of the new age of American laborers [52]. The powers at work here are probably going to be progressively broad than these models. New errands will in general require new

abilities. Be that as it may, to the degree that the workforce does not have those abilities, the change procedure will be hampered. Considerably more forebodingly, if the instructive framework is not doing giving those abilities (and in the event that we are not in any case mindful of the kinds of new aptitudes that will be required to empower interests in them), the change will be significantly hindered [12].

As for example, demographer Joel Kotkin [53] causes to notice the advancement toward neo-feudalism in California. The Golden State, with a populace of 38 million occupants, has regularly been viewed as a model of a “mesocratic culture” in the US with an extremely enormous white collar class. As indicated by late turns of events, four separated classes have been developed: (a) the theocracy of the super-rich, particularly in fund and IT; the scholarly world class, like academics, (b) media experts or public decision-makers; (c) the white collar class of experts and little owners; and (d) the serfs, spoke to by the “working needy individuals” and those subject to endowments and government help.

As indicated by the discoveries of Kotkin, the once adequate white collar class has been damaged and California has gone into a neo-primitive period, while the oligarchs and the scholarly elites has increased more force and the servants has duplicated all over the place.

In future where respectable and generously compensated occupations for everybody are vulnerable to be rebuilt with the increase of robotization, in such a situation, the best option for the government assistance states to counterbalance laborers’ vulnerability is to invigorate “minimum income guarantees” so as to compose social citizenship compelling. This is by all accounts a conceivable strategy in develop European government assistance declare that as they have just encountered a panoply of “safety net” arrangements of social security for the workless [54, 55].

In periods of economic shrink, around the 1930s, and between 1970s and early 1980s, Basic Income discussions are higher than in periods of economic growth (for example, growth of capitalism in the 1950 and 1960s) [56].

What is a UBI? The discussion on a UBI is frequently riotous and without exact definitional forms. In numerous occurrences, a UBI is compared with ensured least pay plans, while others characterize a widespread program as one that does not build up any qualification models other than age. We propose a meaning of UBI dependent on three center structure decisions—that it is paid to all, unequivocally, and in cash.

Giving salary backing to jobless residents has been a long-standing duty in government assistance majority rule governments since the occasions were projects to battle the old social hazard, for example, joblessness were executed. The conventional presumption of such approaches was that, after a period had slipped by in looking through a new position, the laborer may turn into an active employee again. This procedure of work modification shows up not to act naturally apparent any longer. As a result of occupation replacement actuated by robotization, conversation about giving cash backing to “replaced” laborers is picking up force in the public eye. However, the thought is to increase transversal social accord.

Scholar holding differing ideological thinking caution about the conceivable broken impacts that giving cash without working could create. After all, entrance to work as the methods for social incorporation is the choice favored by a dominant part of the individuals in (post) modern social orders. Research and studies exhibit that giving money installments to the least fortunate improves their lives and does not increment inefficient spending or apathy [57, 58].

An another aspect of robotization effect on economy and social orders as well. The robotization effect on “personal economy” is examined by Kencebay [4]. It is stated that Anxiety has higher and quite material effect on Personal Economy. The study anticipated that Personal Economy will have stronger effect on “Intention to

Accept for Robots” [4]. The high unemployment rates and declining wages may rise the anxiety, due to the anxiety’s material effect on personal economy parallel to that it may effect the level of acceptance of robots. The acceptance of robot for capital owners and work force can be very different due to the separate and different incentives, the potential controversy is clear but has not answered or studied yet.

Wispelaere et al. concluded that three crucial barriers that may block a basic income concept from providing the desired worldwide scope, the first barrier is obtaining a population-wide eligible applicant ensuring adaptation; the second barrier is instituting robust method of payment that arrive all aimed recipients; and the third barriers is creating an adequate control system in a policy framework [59].

A UBI is frequently connected with being a distinct advantage in power redistribution [60]. Such calls may reverberate and intensify previous impression of injustice and imbalances that are crawling into the establishments of implicit understandings [61, 62].

With regards to UBI, the models that are all inclusive and adequate are probably not going to be reasonable, and models that are moderate are not general. The International Labor Organization gauges the worldwide normal expense for UBI, as an extent of total national output, would be 32.7%. Current worldwide normal government use is 33.5% of GDP [57].

The distribution of revenues may not really be inspired by productivity improvements, however, by social and natural standards. From a social point of view, the thought is to reinforce the social texture by inciting a feeling of regular reason, which continues from characteristic assets being a type of investor profit for residents. Current models in Alaska and the Eastern Band of the Cherokee Nation typify this methodology [63]. The Alaska Permanent Fund is intended to distribute oil credit to occupants, while the Eastern Band of the Cherokee Nation is identified with gambling club benefits: since 1997, the innate government has given a segment of its profits to 16,000 grown-up ancestral individuals. The normal yearly profit is around US\$4000 per capita, which is dependent upon government tax assessment and split into two installments for every year.

When it comes to the welfare models and unemployment solution, UBI or GMI have been studied besides other than no nation as of now has such a plan set up, and just two have done so incidentally (Mongolia and the Islamic Republic of Iran). Those encounters offer some accommodating bits of knowledge into center inquiries, for example, financing and inflation, while test cases programs are producing data on at least one characterizing highlights of a UBI. However, framework wide issues are to a great extent left unanswered, for example, the relationship to the lowest pay permitted by law, severance pay, or benefits [61]. Absolutely, for governors a adopt of robotization could come with raise aptitudes and advance employment creation. By reconsidering salary backing and social security nets, new government assistance plans are additionally to be modified [8, 64–66].

The concept of UBI has been studied by country based; ranging from the US [67], to Australia [68], to New Zealand [69], to Sweden [70], to the UK [71], to Belgium and the Netherlands, to Finland [72], and to the rest of Europe [73]. All studies’ main conclusion is that UBI may be applicable in these areas of authority, but that operation demands both strong and sustainable capital and political discipline. In the following part, we will look at the basic income trails in history [74].

#### **4. Basic income in history**

In 1967, the territory of Alaska encountered an unexpected benefit of oil riches when North America’s biggest oil hold was found on state-claimed land. The rent

sold for a faltering US\$900 million. Driven by Governor Jay Hammond, a 1976 change to the legislation enforced the state to store in any event 25% of every year's normal asset incomes in an Alaska Permanent Fund. The reserve incomes are put resources into an investment account, with part of the premium paid every year to occupants as an asset profit. Since 1982, each inhabitant has been qualified for a yearly UCT from the state. People must apply every year, meet the residency standards (be available in Alaska for the former year, with the expectation to remain uncertainly), and have no ongoing genuine criminal conviction. In excess of 90% of the populace regularly gets the profit. Not at all like a genuine UBI, the sum is neither stable nor adequate to address essential issues. The all out profit dissemination has truly added up to half of the reserve's yearly premium (found the middle value of over the past five-year time frame); however, this was as of late decreased to distribute a greater amount of the store's income to the state's enormous shortfall.

The Alaska Permanent Fund profit has pulled in huge encouragement across segment, financial, and political partitions. The program has brought neediness and imbalance levels down to among the country's most minimal and invigorated the economy, creating more than 7000 occupations and US\$1.1 billion personal revenue, without inflation or decreasing work. Indeed, ongoing proof shows part-time work has expanded by 17% [75]. Meantime the profit may have not influenced fertility ratios, it has gone about as a gentle magnet for at any rate 12,000 transients.

The Iranian UBI plot was conceived out of more extensive change bundles. In 2008, the legislature reported a lot of clearing changes in energy and food aids. Nonetheless, opposite general belief to imply testing was developing. Subsequently, the focusing on plan was deserted, supplanted rather with uniform widespread money moves with the rich being debilitated from taking an interest. In January 2010, Parliament affirmed the appropriation change bundle and arrangements were propelled to broadcast the changes, set up the bank framework, guarantee general record get to, and diminish swelling in front of the cost expands [76]. On December 19, 2010, the universal cash move was saved in the financial balances of family heads. Simultaneously, local energy and agricultural costs rose by up to multiple times. From the outset, just 80% of families enlisted for the plan, an offer that immediately rose to 96%.

The amount of monthly cash transfer was set at Rls 455,000 (US\$40–US\$45) per individual—29% of median per capita income, and about multiple times the sum visualized in the endowment change law. The program assimilates about 3% of GDP. The blend of endowment changes and endorses activated swelling rates that disintegrated the exchanges' buying power by 66% of their unique incentive by 2018. All things being equal, the program achieved promising outcomes. For instance, observational examinations discover by and large no negative work gracefully impact (on hours worked and investment); yet the young worked somewhat less (for the most part since they were joining up with advanced education), while administration laborers worked increasingly [76].

At the automatic level, the decision would rely upon the announcement of the issue that UBI is planned to address—for instance, regardless of whether innovative advances will in the long run bring about gigantic net occupation misfortunes—and how well frameworks or a specific program are neutralizing that objective in a given setting [77]. Evaluating the propriety and practicality of UBI requires understanding and working; however, the exchange offs that any program or set of projects face as far as inclusion, progressivity, sufficiency, motivators, costs, financing choices, political economy, and conveyance. None of these parameters have a simple and prearranged result [78, 79]. A UBI is an apparently straightforward thought that includes complex decisions [61].

## 5. Conclusions

SEO specialist, social media account representative, Uber driver, Airbnb host, influencer, app developer, and drone operator; these jobs were not exist 10 years ago. Can we image today's 5-year-olds do when they are 25? What kind of jobs will disappear, will robotization create new jobs that compensate the job loss? How employment will be affected by robotization? Which welfare model in this new era would be appropriate? Will UBI or GMI be paid? Will UBI or GMI solve the problem of potential unemployment? Have governments' convenient economic structure to pay these fees for long term? What is the global reality and testimony around UBI?

While computerization has verifiably been connected to routine errands including predetermined, regulated actions, and big data method are currently quickly entering regions that can supplant work in a wide assortment of non-routine subjective undertakings. What's more, exceptional robots increase propelled sense and finesse, permitting them to play out a more extensive manual errand region. This is probably going to change the idea of work among industries and professions.

The mankind has been fearing its economic redundancy for long time. Robots and automation are instilling that same fear in leading academics and concerned politicians alike. Some of the official reports or bestseller books may be predicting a dark future. Machines are anticipated to be increasingly taking over tasks currently executed by humans. An permanent job crisis will be inevitable for virtually everyone except the best brains. That's what was announced... in the early 60s. Pessimists believe that artificial intelligence and robotics will eventually turn most of the working population idle. Computers can make medical diagnoses, deliver legal documents, translate texts, teach students, control planes, presenting care provision, the transport and distribution sector, freight handling, and what is left of industrial production with a new wave of automation. The catastrophe is very close. New welfare systems have to be planned or new political views even capitalism may be fall. Optimists believe that robotization may change the welfare system and job market but pace of robotization and new job opportunities may not create dark scenarios.

Supplanting innovations supplant laborers and may cause joblessness. As opposed to the standard system dependent on empowering advances, supplanting innovations can lessen wages. It may cause polarization of employment. Truth be told, employment development can regularly be in zones where wage development is restricted. There is discussion between who feel that we have come up short on thoughts and who imagine that we are at the edge of making endless thriving with PCs creating PCs delivering robots delivering computers. Those who stress over the troublesome impacts of AI and robots, we despite need a lot of proof, yet a portion of the examples we have seen demonstrate there will be a ton of disturbance. As optimistic scenario's main assumption that as new machines supplant work in certain undertakings may happen, and new assignments in which work has comparative improvement will be made but it seems that optimistic and pessimist scenarios have one common thing; routine tasks conducted by low-skill employees probably face with job extinction. Education system and job structure have to be changed in order to keep pace with high speed technological changes. People's skill needs would be changed, the employees who are open to learn and change would be the survival of this race. Governments has a huge responsibility to maintain social equity without disturb the economic balances.

The investigation of the referenced above scientific works gives the motivation to accept that the likely ramifications for business and the social circle related with maturing of a few and the presence of new callings are still hard to be predictable. From one viewpoint, the fast and difficulty procedure of robotization shows that

neither relevant education nor creating of new abilities in future will save from unemployment, the material risk, and threat in the labor market. On the other hand, the mechanisms of employment transformation has to be considered, the appearance of jobs in new industries, the probable introduction of technological, financial, legal, and other restrictions on automation and robotization of jobs.

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