

**THE END OF WORK:
THE DECLINE OF THE GLOBAL LABOR FORCE AND
THE DAWN OF THE POST-MARKET ERA**

By *Jeremy Rifkin*.¹

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Many commentators evaluating the currently accelerated pace of technological change have optimistically embraced it and the possibilities it has opened for the future. Indeed, advances in technology and their accompanying productivity gains have added enormous value to our nation. However, this value has been bought at a price, which author Jeremy Rifkin seeks to prove is much higher than is often admitted. The price is jobs; labor-saving technologies have eliminated and are continuing to eliminate entire job sectors. In *The End of Work*, Rifkin asserts that society is moving toward an eventual elimination of work as currently defined. He warns that, ultimately, there simply will not be enough work in the marketplace to keep the population occupied. This grim prediction is followed by a radical solution: Rifkin proposes to alleviate the problem by shortening the workweek and expanding the volunteer sector. He focuses on this sector because he believes that it holds the best, and perhaps only, potential for fostering employment and simultaneously building our communities. In discussing the rapid pace of technological advance, Rifkin indirectly acknowledges the human potential for creativity. However, he loses sight of this characteristic in his foreboding predictions and fails to see that the true cause of the problem — the human creativity that generated technological change — may also be the cure.

According to Rifkin, the United States is experiencing a third industrial revolution, "the third and final stage of a great shift in economic paradigms" (p. 59). The first resulted from the development of steam power. The second, occurring between 1860 and World War I, centered on the development of oil as a replacement for coal and the widespread use of electricity as a source of power (pp. 59-60). The third industrial revolution began shortly after World War II, but its impact is only now being realized. This transformation is based on computers and "numerically controlled robots . . . invading the last remaining human

1. Jeremy Rifkin has written more than a dozen books on science, technology, and culture. He is currently president of the Foundation on Economic Trends in Washington, D.C.

sphere — the realm of the mind” (p. 60). Computers are capable of much more than merely saving labor; they can perform conceptual, administrative, and managerial functions, and are poised to become more prominent in these areas (p. 60).

Historically, revolutions in technology have improved the standard of living by yielding higher incomes and shorter workweeks. This trend helped contribute to early visions of technological utopias — futuristic societies in which all would benefit from new technology and increased efficiency (pp. 42-56). Yet, this Edenic picture has not materialized for all segments of society. For example, a large portion of the African-American population has systematically been injured by productivity gains. The labor of most southern black sharecroppers was displaced by the invention, in 1944, of the mechanical harvester. In a fifteen-year span, mechanical harvesters grew from harvesting only 6% of the South's cotton to harvesting 78% percent (p. 71). The resulting productivity gains caused the federal government to mandate a 40% reduction in cotton acreage in the 1950s, exacerbating the displacement of African-American sharecroppers. Consequently, much of this land was transferred to less labor-intensive uses (p. 71). Later, after many African-Americans migrated to northern cities, advances in automation eliminated a significant percentage of the manufacturing jobs on which blacks depended (p. 73).

In addition to displacing large sectors of employees, the technological advances of the third industrial revolution have allowed machines to perform increasingly complex tasks. For example, in the 1950s, Toyota introduced “Lean Production,” a managerial system that integrates “new management techniques with increasingly sophisticated machinery to produce more output with fewer resources and less labor” (p. 96). This technique requires neither an abundance of skilled workers, as does craft production, nor an abundance of unskilled workers, as does mass production (p. 96). Combined with advances in automation, machinery, and computer control, Lean Production has spread to such industries as: automobile, steel, tire, electronics, and appliance manufacturing; mining; chemical refining; and textiles (pp. 128-39). Many managerial jobs have been eliminated, illustrating that technology is capable of replacing progressively more complex tasks. However, most of the jobs that have been eliminated are blue-collar; Rifkin predicts that by the middle of the next century, blue-collar jobs will be relegated to the history books (p. 140).

While the service sector seems to be a logical avenue for job expansion, Rifkin finds it incapable of accommodating the vast number of displaced workers. Rifkin notes that the service sector is limited because it is also subject to the encroachment of technological advances (p. 141). The ranks of the unemployed are swelling with former service

sector workers, such as secretaries, receptionists, clerks, and cashiers. These workers are being replaced by what Rifkin calls the silicon-collar workforce: answering machines, scanners, voice and handwriting recognition devices, electronic mail, and inventory control and monitoring devices (pp. 136-43). Among the industries and employment sectors directly impacted by these trends are the banking industry, the insurance industry, the postal service, and the wholesale and retail sectors (pp. 142-57). Moreover, the continued development of the "virtual office," which incorporates all of the labor-saving technologies utilized by a typical business, promises to impact every segment of the economy and eliminate millions of clerical workers (pp. 147-48). Finally, more skilled workers will be affected, as "intelligent machine[s] . . . steadily mov[e] up the office hierarchy, subsuming not only routine clerical tasks but even work traditionally performed by management" (p. 149).

Historically, the government has addressed problems of unemployment and displacement. For example, the government has become one of the nation's largest employers of African-Americans (pp. 76-77). Although Rifkin commends the government's interventionist role, he concludes that the government can no longer sustain consumption by providing jobs because of the constraints imposed by financing the national debt² and the mounting "public attention on the need to cut spending" (p. 37).

Developing a solution to rising unemployment is not only important to ensure consumer demand for the existing supply of goods, but also for two additional, interrelated reasons noted by Rifkin. The first is the rising level of crime, particularly in inner cities, and the second is unemployed workers' feelings of irrelevance and alienation.³ Rifkin cites a number of studies correlating rising unemployment rates with increases in crime, as well as further data suggesting that rising unemployment in fact causes much of the crime (pp. 208-13). Intuitively, this connection between unemployment and crime seems clear; however, few Americans "are willing to acknowledge the inseparable relationship that exists between the two" (p. 212).

To stem the rise in crime, one must determine its cause. While some may turn to crime to satisfy their basic needs, this is not viewed as the major cause of crime. Rather, the indignity of being reduced to

2. Rifkin notes that several factors have "forc[ed] the federal government to adopt a strategy of deficit spending to create jobs, stimulate purchasing power, and boost economic growth" (p. 37).

3. "[Automation causes the black worker to move] out of his historical state of oppression into one of uselessness. Increasingly, he is not so much economically exploited as he is irrelevant" (p. 79, quoting SIDNEY WILLHELM, WHO NEEDS THE NEGRO? 162 (1970)) (internal quotations omitted).

“economic irrelevance” and the growing disparity between the rich and the poor are at the heart of the violence (p. 215):

[Many of those whom technology has made obsolete] sense that the world is passing them by, and feel increasingly powerless to intervene on their own behalf, to demand their rightful inclusion in the new high-tech global order. They are the outcasts of the global village . . . a mass of humanity whose fortunes and destiny increasingly tend toward social upheaval and rebellion against a system that has made them all but invisible (p. 216).

Rifkin posits that two very different worlds are competing — “one utopian and full of promise, the other dystopian and rife with peril” (p. 216) — because of the diminishing role that traditional types of work are playing in society. To deal with this division and the problems it engenders, Rifkin suggests creating alternatives to formal work that can “engage the energies and talents of future generations” (p. 217), and developing strategies for the transition period occurring before the new social order is fully realized.

Specifically, two changes will be required: (1) the sharing of the gains of technological progress with all members of society; and (2) the expansion of the volunteer sector to address the personal and societal needs that the market sector fails to meet. First, sharing the fruits of productivity gains with the work force would result in a reduced workweek and steadily increasing wages. In each of the two previous industrial revolutions, the choice between increased unemployment or greater leisure was settled in favor of a reduced workweek (p. 222). Moreover, because the average workweek has grown in the last several decades (pp. 222-23), the need to shorten the workweek and spread available work is even more pressing. In addition, workers have a claim on the gains from increased productivity. Pension funds, which represent the deferred savings of millions of American workers, are the largest pool of investment capital in the United States. These assets total over \$4 trillion and represent nearly one-third of the U.S. economy’s financial assets (p. 228). Since this money has been invested in labor-saving technologies for decades, it has systematically worked against some of the long-term interests of its owners. In return, “American workers have a justifiable right to share in that productivity both as investors and as employees” (p. 228).

Second, Rifkin advocates a dramatic expansion of the volunteer sector and the role it plays in American society. Rifkin terms this expansion the “new social contract” (p. 236). The contract addresses two sets of needs: the individual’s need to be a productive and valued

member of society; and society's need to address problems that the market sector ignores or exacerbates, and that the public sector cannot adequately solve. After tracing the long history of the volunteer sector's influential role in society (pp. 239-48), Rifkin suggests that the existing framework makes it a promising avenue for future efforts.

To compensate volunteer workers, Rifkin proposes the establishment of a "shadow wage" (p. 257) and a "social wage" (p. 258). A shadow wage would be a tax deduction offered by the government to individuals who donate their time to volunteer activities. A social wage would be a living wage given by the government to the unemployed in exchange for volunteer service. According to Rifkin, "[r]ecruiting, training, and placing millions of unemployed and poverty-stricken Americans in jobs in nonprofit organizations in their own neighborhoods and communities is likely to have far greater impact, per dollar spent, than more traditional public-works-oriented programs and market-directed initiatives" (p. 265). Rifkin does not specify precisely which volunteer activities would qualify for the deduction or the living wage, but suggests that the needs of the community or an articulated government policy could serve as possible guides.

In discussing the financing of these changes, Rifkin first notes the significant cost savings these programs may generate. Far fewer people will need public support because the shorter workweek will provide more jobs. Second, the volunteer sector may handle many current government services, thus reducing the overall budget. Acknowledging that a shortfall in funding may still remain, Rifkin suggests several additional sources: cuts in defense spending; the elimination of certain subsidies to transnational corporations; and the introduction of a value-added tax ("VAT"). Rifkin's enthusiasm for the VAT is based on the belief that it taxes people for "what they take out of society's resources, not what they put into them" and that it would have a more positive effect on growth than would an increase in income taxes (p. 270).

Rifkin's analysis is thorough and creative. At the same time, however, it is an overreaction to the present problems. Virtually every job now in existence will either be eliminated or markedly changed within the next fifty years; this pattern has occurred repeatedly throughout history. However, history suggests that sufficient new industries and jobs will be created within the next fifty years to employ displaced workers. The unsolved problems and unfulfilled needs and desires of society are infinite. Solving these problems and meeting these needs will require the time and talent of both skilled and unskilled workers for eternity. Furthermore, these needs and problems need not be presently identifiable. The restaurant and food service industries provide a simple example. In 1960, Americans ate only 5% of meals outside the home. By 1980, half of the meals in America were eaten outside the home, and

20% of the American workforce was employed in the food preparation business.⁴

Admittedly, Rifkin exposes a serious problem that has accompanied all major technological innovations: how to care for displaced workers. As the introduction of the harvesting machine displaced sharecroppers, and the introduction of digital switching systems displaced switchboard operators, current and future innovations will negatively impact certain groups of individuals. The sluggish growth of the U.S. economy over the past ten years complicates this problem. Rifkin's concern for these groups is certainly well-founded, and his suggestions should be seriously considered and evaluated.

Yet Rifkin fails to acknowledge the creativity of the human spirit. He considers "the realm of the mind" to be "the last remaining human sphere" (p. 60), and believes that technology is entering this realm. However, this picture is inaccurate. The technological advances of the last 150 years have demonstrated the creativity of the human spirit, not simply its power to manage resources, perform calculations, and gather data. This creativity will fuel future growth and expansion.

The restructuring of corporate America and the emergence of the virtual office hold stunning possibilities for future industries and jobs. As technology facilitates a shorter workweek, millions of people will have more free time to pursue innovations, inventions, and other creative endeavors. Rifkin touches on the creative potential of the human spirit in the volunteer sector, but unfortunately does not recognize that the same dynamic has been and will continue to be active in the market sector.

Rifkin's analysis is passionate and detailed, and his recommendations are courageous and challenging. For these reasons, *The End of Work* is worth reading. However, in failing to recognize the driving force of human creativity behind both the American economy and technological progress, and the ability of that force to identify and adapt to changing technological realities, Rifkin fails to see that there will be no end to work.

Brian Dorini

4. See PAUL ZANE PILZER, ECONOMIC PARADIGMS AND THE POWER OF DISTRIBUTION (Internet Services Corp. 1992).