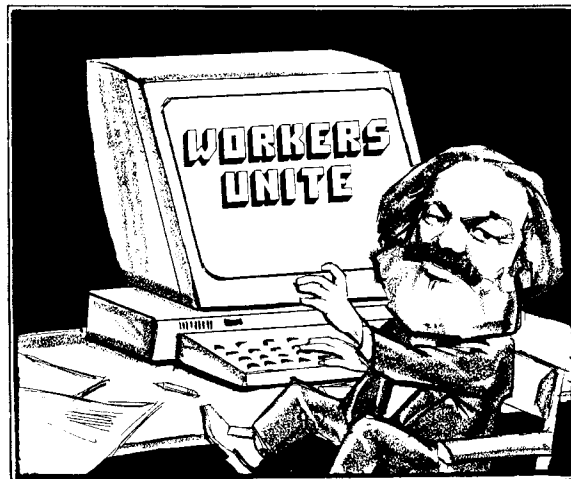


SOCIALIST STUDIES

Karl Marx on 'High Tech'

By Robert Bills



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Karl Marx on ‘High Tech’

The following is based on an address delivered by SLP National Secretary Robert Bills at the Northern California Thanksgiving Affair at the Finnish Brotherhood Hall in Berkeley, California, on Nov. 17, 1985, and repeated at the Eastern Interstate Thanksgiving Banquet at Cavanaugh’s Restaurant in Philadelphia, Pennsylvania, Nov. 24, 1985.



Today’s subject, “Karl Marx on ‘High Tech,’” might seem to be an anachronism. Marx died over a century ago. He lived and worked in the 19th century—in a time profoundly different from our own. Much of what we take for granted today didn’t even exist back then. There were no telephones, televisions or airplanes, for example, much less computers, robots, or satellites circling the Earth.

Moreover, Marx completed his epic work, *Capital*, in 1867. Looking back, it’s apparent that the Industrial Revolution of the 18th century had hardly been completed by then.

So we might well ask: What relevance do Karl Marx and his views on capitalism have in this day and age? Why is it important that working people grasp the principles of Marxist economics in the era of high tech?

The answer lies in this: despite enormous changes and technological advances since Marx died in 1883, one thing has not changed. That one thing is the fundamental nature of the social system we live under. It was capitalism in the 19th century when Marx was still alive; it is still capitalism in the 20th century more than 100 years after his death; and, unfortunately, it appears it will be capitalism for a while yet to come.

What then are the fundamental characteristics of the capitalist system?

First, it is a system of class division and class rule. In all the industrialized nations, the vast majority of people fall into one of two classes distinguished as follows:

- The capitalist class, which is distinguished by its ownership and control of the means of producing wealth.

•The working class, the vast social majority, which is distinguished by its lack of ownership or control over any means of production save one.

That one, of course, is its ability to perform productive labor. But to perform productive labor workers first must have access to the means of production owned by the capitalists. And the only way they can get such access is by selling their ability to labor to the capitalists.

Second, capitalism is a system under which production is carried on to procure a profit for the capitalist owners of industry. No one will dispute that fact, no matter how much they may insist that capitalism is beneficial to society as a whole. It is as true today as it was 100 years ago, and it will continue to be true as long as the capitalist system exists.

Capitalism, of course, has many other features. Some of these are distinct to capitalism and were unknown prior to capitalism. The most important of these is how capitalists derive profit from their industries. They do so, of course, through the “exploitation of wage labor”—wages being the name for what workers are paid in exchange for their working ability.

Defenders of capitalism deny that it “exploits” workers. They contend workers are paid a “fair day’s wage for a fair day’s work.” But Marx said otherwise. He contended that the working day is divided into two parts. During the first part, workers produce the equivalent of their wages; during the second part, workers produce surplus value—wealth over and above their wages.

Marx demonstrated this in various ways. For our purposes, however, one observation will suffice. It is that capitalists are always looking for ways to increase the productivity of labor. They are in endless, restless search for means to compel workers to produce more in less time. That fact alone is sufficient to prove the point.

What has all this to do with the high technology of the 1980s?

The question answers itself: High tech, no matter how sophisticated, “mysterious” or complex it may be in other respects, is simply one more step forward in increasing productivity, that is, the exploitation of workers.

In *Capital*, Marx devoted a large chapter to the advanced technology of his day, i.e., to industrial machinery. He opened it with this observation:

“John Stuart Mill says in his *Principles of Political Economy*: ‘It is questionable if all the mechanical inventions yet made have lightened the day’s

toil of any human beings.’ That is, however, by no means the aim of the capitalistic application of machinery. Like every other increase in the productiveness of labor, machinery is intended to cheapen commodities, and, by shortening that portion of the working day, in which the laborer works for himself, to lengthen the other portion that he gives, without an equivalent, to the capitalist. In short, it is a means for producing surplus value.”

That obviously is not the way defenders of capitalism portray high tech. Even so, occasional inklings of the truth do filter through. For example, Joseph Engelberger, widely regarded as being the “father” of robotics, was quoted as follows in 1981: “The prime issue in justifying a robot is labor displacement. . . . The key motivation is the saving of a labor cost by supplanting a human worker with a robot.” Nothing could be clearer.

Labor-displacing technology is nothing new. We have already heard from Marx on the motivations for introducing it into industry during the 19th century, and we have heard as witness a key figure in the development of today’s vastly superior technology.

Robotics, of course, is only the latest development in an ongoing process. The impact that process has had to date may be understood from the following facts: 30 years ago, workers engaged in manufacturing industries made up 33 percent of all nonagricultural workers; today, they make up less than 20 percent, and it has been estimated that by 1990 they could make up only 2 percent of all employed workers.

How is this possible? Are these new methods of production really so powerful? Evidently so, as can be seen from the following examples from the auto and electronics industries.

Last November, *Fortune* reported:

“When the first Saturn car rolls out of the Spring Hill [Tenn.] plant in 1989, it will embody every new cost-slashing technique. GM can come up with. Most of the new processes are aimed at chopping back labor costs. David Cole, director of the Office for the Study of Automotive Transportation at the University of Michigan, estimates that Japanese carmakers now put about 100 hours of labor, including suppliers’ labor, into each small car they build. That’s about half the time U.S. automakers require. Cole thinks Saturn could build a car in 40 hours, or even 30, saving hundreds of millions of dollars each year.”

About a year ago *Business Week* reported:

“Since 1979....[IBM] has invested about \$13 billion in its factories to improve quality and reduce break even points. ‘The impetus behind our desire to be the low-cost producer is the Japanese,’ acknowledges Edward M. Davis, IBM’s vice president for manufacturing....

“Overall, IBM has three times as many automated lines today as it did in 1980.

“In 1980, before [IBM’s 25-year-old] Lexington, Ky., plant was automated, labor accounted for about one-third of manufacturing costs there. Today, it counts for less than 10 percent, and by 1986 it will shrink to 5 percent.”

Despite all this, there are those who contend that high tech will produce beneficial results for workers—even for those workers who will be replaced by robots in coming years. In any event, they contend that whatever dislocations are due to take place will be temporary. They argue that new jobs will emerge to take the place of the industrial jobs being wiped out.

Reagan, in his 1983 State of the Union address, hailed “the first flowering of the man-made [sic] miracles of high technology.” And Reagan is not alone. Expert after expert has predicted that high tech will not only provide jobs for millions of unemployed workers but also for a whole new generation of workers.

One prognosticator, after admitting that high tech would “cost jobs in the short run,” rhapsodized that its “increased efficiency means productivity and that will create more jobs in the future.”

That’s pretty much the same thing capitalists said of the machinery introduced in the 19th century. Marx answered that as follows:

“It is impressed upon the work people, as a great consolation, first, that their sufferings are only temporary (‘a temporary inconvenience’), secondly, that machinery acquires the mastery over the whole of a given field of production, only by degrees, so that the extent and intensity of its destructive effect is diminished.”

Marx went on to describe the fate of the handloom weavers who were displaced by machinery:

“History discloses no tragedy more horrible than the gradual extinction of the English handloom weavers, an extinction that was spread over several decades, and finally sealed in 1838. Many of them died of starvation, many with families vegetated for a long time on 2¹/₂d. a day.”

Could something similar happen in this day and age? Impossible, some might say. But don't be too sure that it can't or won't.

There are indications that similar tragedies may be in the offing. For example, two years ago, the *San Jose Mercury News* reported the views of Faye Duchin, a New York University economist who studies technology and employment trends:

“There are ‘real reasons,’ she says, why it is not realistic to count on the economy growing indefinitely, creating new jobs for those that disappear.

“‘An increasing proportion of the adult population...may be excluded from the labor force of the future and without any source of income.’”

Henry M. Levine and Russell W. Rumberger, two researchers for Stanford University, have made similar predictions in a report prepared in 1983. According to Rumberger:

“It's high time we be a little more realistic about what the future is. It's easy to say high technology is where it's at and everybody should go out and get high-technology skills. But high technology isn't the answer to everything. People shouldn't have too high expectations.”

Levine and Rumberger suggest there will be less demand on the labor market for computer experts as computers become more sophisticated. And the more people trained in high technology, they say, the more brutal the competition will be for a dwindling number of jobs.

Levine notes, “Entire classes of skilled workers will disappear or will be severely reduced in numbers as their jobs are replaced by robots or computer software.”

Rumberger and Levine say the idea that high-tech jobs will be abundant enough to replace industrial jobs is a myth. High-tech occupations will generate only 7 percent of the new jobs by 1990.

Far from there being a demand for workers skilled in high technology, they say flatly that “the net impact of technological change will be to lower skill levels.”

The two had more to say as well.

- The fastest growing occupations of the high-tech future will be in fast-food restaurants, janitorial work and fields requiring little or no academic training.

•They estimate there will be openings for 600,000 janitors by 1990, but only 200,000 new computer systems analysts; openings for 800,000 new fast-food workers and kitchen helpers, but only 150,000 new computer programmers.

If experts like Duchin, Levine and Rumberger are anywhere near correct, the high-tech future is hardly promising for the vast majority of workers. And it is a far cry from predictions made 30 years ago for the wave of automation that followed in the wake of the post World War II boom. Consider for example, one of these predictions in the National Association of Manufacturers' pamphlet *Calling All Jobs*:

“Let the worker face what is to come with hope in his [sic] heart, not with fear in his mind. Automation is a magical key to creation, not a blunt instrument of destruction, and the worker's talent and skill will continue to merit reward in the fairyland of the world to come.”

But if automation, or high tech, or robotics is unlikely to fulfill its promise of great benefit to society as things stand now, there is no reason to despair.

Capitalism obviously is riddled with contradictions. On the one hand, it has the distinction of being the system under which such marvelous means of production have been brought into existence. On the other hand, the system of exploitation on which it is based makes it more and more difficult for the vast majority to benefit from that technology.

Furthermore, it has no means with which to reconcile that contradiction. As Marx noted of the capitalist class—the bourgeoisie—and its system long before he wrote *Capital*:

“The bourgeoisie cannot exist without constantly revolutionizing the instruments of production, and thereby the relations of production, and with them the whole relations of society. . . . Constant revolutionizing of production, uninterrupted disturbance of all social conditions, everlasting uncertainty and agitation distinguish the bourgeois epoch from all earlier ones.”

Marx was and remains capitalism's greatest critic. For that reason, he was and remains the greatest champion of the working people. When we speak of the relevance of Marx in the age of high tech it is not for abstract,

academic reasons, but because the future well-being of the vast working-class majority is at stake.

Indeed, the fate of the world is at stake. For high tech not only reaches into factories where it threatens to wipe out jobs, it reaches into outer space and compounds the danger of nuclear destruction.

Working-Class Alternative

Marx, however, was more than an observer of capitalism, he was more than its critic, and he was more than a champion of the workers.

Marx was a revolutionary. He called upon the working class to overthrow the capitalist system of private ownership of the instruments of production for a new social system based on common ownership—one in which production would be carried on for human use, not private profit; one in which all exploitation of one class by another would be impossible; one in which peace, security and plenty would be the birthright of all.

But Marx was no do-gooder, no bleeding-heart liberal. He declared that the working class was revolutionary, or it was nothing. To emancipate itself from what he called the “everlasting uncertainty” of life under capitalism, the working class must understand its historic mission.

It must come to understand how capitalism works—why it creates uncertainty,” unemployment, poverty and the like, on the one hand, while “constantly revolutionizing the instruments of production,” and expanding the productive capacity of society, on the other hand.

The Socialist Labor Party is in complete harmony with Marx. It too contends that capitalism cannot work for the benefit of the working-class majority. It too strives to educate the working class about capitalism. It too projects a society in which classes have been abolished, in which the means of production are socially owned and operated for the benefit of all. And it offers a revolutionary program—Socialist Industrial Unionism—that is in complete consonance with Marx’s warning that the emancipation of the working class must be the classconscious act of the working class itself.

Investigate the program of the SLP. And if you find that we are right, as we think you will, join with us in the struggle for that better world of peace and prosperity!

For the fate of the English handloom weavers should serve as a grim reminder—and the threat of nuclear war as a grimmer warning—to workers

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of the imperative need to liberate themselves from the baneful effects of a system based on production for profit through the exploitation of wage labor.

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