

Economics and the Communist Manifesto—Part 2 - On lean production and computers

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“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.”

THE WORD “REVOLUTIONIZING” was not as irritating in Engels’ and Marx’s time, before we were saturated with ads for revolutionary new car waxes and scouring powders. I’m searching my computer’s thesaurus for a way to say “makes big changes in but does not turn completely on its head,” the latter being my understanding of “revolution.” At the end of the twentieth century as in the middle of the nineteenth, it’s obvious that capitalists indeed constantly seek innovations both in the instruments of production (the machines they use) and in their relationship to their workers. Computers and “lean production” have overhauled the way people work; they have altered, but not revolutionized, the balance of power between worker and manager.

Lean production is a change not in the factory machinery but in the way work is organized and discipline enforced. Pioneered by Toyota Motor Co. its methods are now in use on every continent. Tautness, leanness is all. Supplies are delivered just-in-time, absent workers are not replaced, the worker’s each motion is timed and then kaizened (continuously improved) to take less time. Factories using lean methods have shown dramatic leaps in productivity.

The foremost promoters of lean production, underwritten by the auto companies and MIT, call it “the most revolutionary change since Henry Ford’s assembly line.” Most academics call the changes “post-Fordism,” as if it were a new system. It’s not. It’s a Fordism in which the screws have been tightened, a tighter, cleaner assembly line, on which workers still toil at the relentless pace of the drag chain, and the system itself enforces compliance without overt managerial intervention.

The changes wrought by computers are more visible in everyday life. Many people—certainly not all, think of garment workers—work very differently today than they did just fifteen years ago. When we started Labor Notes magazine in 1979, for example, we thought we were hot stuff when we asked an author to use Express Mail. We operated an Addressograph machine to laboriously stamp each subscriber’s name into a shiny metal plate, and we stored the stacks of plates in wooden boxes in a back room called “the dungeon.”

Computers changed all that. The new machines made our work easier, cleaner, certainly faster. But we still wrote (not just “word processed”) stories, put them on a page, and mailed them to readers hungry for the good and bad news. Other workers have found changes in their work less benign; they don’t control the means of production as the Labor Notes staff does. Take this 49-year-old wood model maker from suburban Detroit, describing how his shop made models of car bodies then and now:

“When I started, you’d go in and you’d be taking your dimensions off your blueprints. You’d go from view to view to determine what the part does. Then you’d be gluing up the wood and shaping it.

Everything would be hand-built. You'd cut it on bandsaws, handwork a lot of stuff in with chisels and hand tools."You worked with one person, a journeyman, for months at a time to really learn things. You had to do a lot of thinking and create this fender or this front end. You had to visualize what you had to do, then make it.

"Now, they took all the ingenuity out of it and you don't have to do a lot of thinking, which makes for a real boring day. What's happening is technology is taking over, they're programming and machining parts we used to build by hand. It's somewhat faster, but they're eliminating a lot of skilled workers. A lot of times we don't get blueprints anymore. They'll give us screen dumps off the computer, some little bitty piece of paper.

"Today the job is more or less gluing up pieces of foam in blocks big enough to cut a fender out of. All you do is fit blocks together so someone else can machine it."There are no apprenticeships basically nowadays. They don't train the kids the same way I was trained. In the late '80s we had near 100 people in the wood shop. Now there's about ten of us. I'm working alongside people doing the same thing I'm doing for \$6-7 an hour.

"It would be to the companies' advantage to take the people who have the knowledge of blueprints, such as myself, and put them into training for the computers, instead of taking somebody off the street. But they prefer to get rid of journeymen and train people on the computers that aren't part of the union."

Thus the Clinton Administration's bromides on the future of work are the opposite of the truth. Former Secretary of Labor Robert Reich always preached that because of computers, the high-tech worker of tomorrow would have to be highly skilled. Some will be, but others find that precisely because your machine has been programmed by a smart person, you yourself no longer have to be smart in order to operate it. Employers have used the new instruments of production to deskill union jobs and thereby to change the balance of power between manager and worker.

This means it's a smaller problem to replace striking workers with scabs. UAW members at Caterpillar were confident when they went out that untrained workers could not run their machines, but they quickly found the factories full of office workers and new-hires. They weren't as adept as the real workers, but they were good enough for Cat to make a profit.

Lean production likewise seeks to increase management's power through deskilling and standardization. A GM manager, asking skilled electricians to fill out forms detailing each motion of their work day (including a breakdown of "value added" and "non-value added" actions), explains, "The worksheets will be posted on the job so that anyone can walk up to the job and perform with a minimum of break-in time."

There's a flaw, though. The new methods and the new machines give bosses more power only when workers are unorganized. The system strips workers of the means to defend themselves individually, by getting rid of the union's "archaic work rules." But the lean system, as well as the electronic workplace, is more vulnerable than its predecessor to collective action. The lack of buffers anywhere in the system means that action even by a small number of workers can bring the process to a halt. When auto parts are delivered just-in-time, for example, with no stocks on hand, a slowdown or strike by workers at the parts plant will tie up the whole assembly plant.

Likewise the communication power provided by electronic networks puts workers in touch with each other. Unionized pilots at UPS, who honored the August 1996 picket lines one hundred percent, organized themselves to do so nationwide via the Web. Possibilities for international labor solidarity are waiting to be tapped.

Despite the “everlasting uncertainty and agitation” of which Engels and Marx wrote, the relations of production have not been revolutionized by computers and lean production any more than they were overturned by the assembly line, the automobile, or the telephone: the owners still own, we still work for a wage. The pace of change is so fast, and the power shift, thus far, so much in favor of the boss, that it’s hard for workers to figure out how to take advantage of the new conditions on the office and factory floor. This is where the socialists of our time can help.

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P.S.

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