Crisis Idles Japanese Robots—
But They Can't be Laid Off!

[This is an article from the *New York Times* that I forwarded to friends along with a brief commentary, July 13, 2009. –S.H.]

Hi everybody,

Appended below is a rather amusing item from today's *New York Times* about how thousands upon thousands of Japanese industrial robots are now sitting in factories unused because of the world economic crisis. Don't cry for them! At least they are not being laid off!

As the article notes, in a great and ever-growing number of applications robots are cheaper than human labor power over the long run, even though they are initially very expensive. But that assumes that the robots can continue to be used. If a severe economic crisis breaks out and production must halted for a long period (or even permanently in many cases), or if production changes make some particular robot obsolete, then they cannot simply be laid off. Instead a loss must be taken on that part of their initial price which has not been recovered through savings as compared to the cost of human labor power.

One of the greatest advantages to the capitalists of human workers is that they can be laid off when they are no longer needed (i.e., when they can no longer be profitably exploited). The capitalists *depend* on the dispensability of their human workers, but in the case of robots they are still stuck with them even if they can no longer be used. It really does break one's heart to think about this terrible capitalist predicament!

Scott

The New York Times

July 13, 2009

In Japan, Machines for Work and Play Are Idle

By HIROKO TABUCHI

KITAKYUSHU, Japan — They may be the most efficient workers in the world. But in the global downturn, they are having a tough time finding jobs.

Japan's legions of robots, the world's largest fleet of mechanized workers, are being idled as the country suffers its deepest recession in more than a generation as consumers worldwide cut spending on cars and gadgets.

At a large Yaskawa Electric factory on the southern Japanese island of Kyushu, where robots once churned out more robots, a lone robotic worker with steely arms twisted and turned, testing its motors for the day new orders return. Its immobile co-workers stood silent in rows, many with arms frozen in midair.

They could be out of work for a long time. Japanese industrial production has plummeted almost 40 percent and with it, the demand for robots.

At the same time, the future is looking less bright. Tighter finances are injecting a dose of reality into some of Japan's more fantastic projects — like pet robots and cyborg receptionists — that could cramp innovation long after the economy recovers.

"We've taken a huge hammering," said Koji Toshima, president of Yaskawa, Japan's largest maker of industrial robots.

Profit at the company plunged by two-thirds, to 6.9 billion yen, about $72 million, in the year ended March 20, and it predicts a loss this year.

Across the industry, shipments of industrial robots fell 33 percent in the last quarter of 2008, and 59 percent in the first quarter of 2009, according to the Japan Robot Association.

Tetsuaki Ueda, an analyst at the research firm Fuji Keizai, expects the market to shrink by as much as 40 percent this year. Investment in robots, he said, "has been the first to go as companies protect their human workers."

While robots can be cheaper than flesh-and-blood workers over the long term, the upfront investment costs are much higher.

In 2005, more than 370,000 robots worked at factories across Japan, about 40 percent of the global total, representing 32 robots for every 1,000 manufacturing employees, according to a report by Macquarie Bank. A 2007 government plan for technology policy called for one million industrial robots to be installed by 2025. That will almost certainly not happen.

"The recession has set the robot industry back years," Mr. Ueda said.

That goes for industrial robots and the more cuddly toy robots.

In fact, several of the lovable sort have already become casualties of the recession.

The robot maker Systec Akazawa filed for bankruptcy in January, less than a year after it introduced its miniature PLEN walking robot at the Consumer Electronics Show in Las Vegas.

Roborior by Tmsuk — a watermelon-shape house sitter on wheels that rolls around a home and uses infrared sensors to detect suspicious movement and a video camera to transmit images to absent residents — has struggled to find new users. A rental program was scrapped in April because of lack of interest.

Though the company won't release sale figures, it has sold less than a third of the goal, 3,000 units, it set when Roborior hit the market in 2005, analysts say. There are no plans to manufacture more.

That is a shame, Mariko Ishikawa, a Tmsuk spokesman, says, because busy Japanese in the city could use the Roborior to keep an eye on aging parents in the countryside.

"Roborior is just the kind of robot Japanese society needs in the future," Ms. Ishikawa said.

Japan's aging population had given the development of home robots an added imperative. With nearly 25 percent of citizens 65 or older, the country was banking on robots to replenish the work force and to help nurse the elderly.

But sales of a Secom product, My Spoon, a robot with a swiveling, spoon-fitted arm that helps older or disabled people eat, have similarly stalled as caregivers balk at its $4,000 price.

Mitsubishi Heavy Industries failed to sell even one of its toddler-size home-helper robots, the Wakamaru, introduced in 2003.

Of course, less practical, novelty robots have fallen on even harder times in the downturn. And that goes for robot makers outside Japan, too.

Ugobe, based in Idaho, is the maker of the cute green Pleo dinosaur robot with a wiggly tail; it filed for bankruptcy protection in April.

Despite selling 100,000 Pleos and earning more than $20 million, the company racked up millions of dollars in debt and was unable to raise further financing.

Sony pulled the plug on its robot dog, Aibo, in 2006, seven years after its introduction. Though initially popular, Aibo, costing more than $2,000, never managed to break into the mass market.

The $300 i-Sobot from Takara Tomy, a small toy robot that can recognize spoken words, was meant to break the price barrier. The company, based in Tokyo, has sold 47,000 since the i-Sobot went on sale in late 2007, a spokeswoman, Chie Yamada, said, making it a blockbuster hit in the robot world.

But with sales faltering in the last year, the company has no plans to release further versions after it clears out its inventory of about 3,000.

Kenji Hara, an analyst at the research and marketing firm Seed Planning, says many of Japan's robotics projects tend to be too far-fetched, concentrating on humanoids and other leaps of the imagination that cannot be readily brought to market.

"Japanese scientists grew up watching robot cartoons, so they all want to make two-legged companions," Mr. Hara said. "But are they realistic? Do consumers really want home-helper robots?"

Robot Factory, once a mecca for robot fans in the western city of Osaka, closed in April after a plunge in sales. "In the end," said Yoshitomo Mukai, whose store, Jungle, took over some of Robot Factory's old stock, "robots are still expensive, and don't really do much."

Of course, that is not true for industrial robots — at least not when the economy is booming.

Fuji Heavy Industries argues its robots are practical and make economic sense. The company sells a giant automated cleaning robot that can use elevators to travel between floors on its own. The wheeled robot, which resembles a small street-cleaning car, already works at several skyscrapers in Tokyo.

Companies can recoup the 6 million yen investment in the cleaner robot in as quickly as three years, a Fuji spokesman, Kenta Matsumoto, said. The manufacturer has rented out about 50 so far.

"A robot will work every day and night without complaining," Mr. Matsumoto said. "You can even save on lights and heating, because robots don't need any of that."

Makiko Inoue contributed reporting from Tokyo.