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AI Researchers Struggle with Human Toll of Automation. John Scruggs. *Memphis Business Journal*. January 31, 2005 (www. bizjournals.com/memphis/). "Artificial intelligence is becoming a reality as adaptive technologies revolutionize the way businesses operate. Industries ranging from transportation and distribution to healthcare and education are all target markets for adaptive technologies. As the limitless advantages and huge impact of artificial intelligence on the business world are slowly gaining acceptance, ethical questions arise concerning the impact such technologies could have on the labor market."

How to Pick an Orange? The choice between back-breaking human labor and efficient fruit-harvesting machines is approaching fast, just as it did more than 40 years ago when the mechanical tomato harvester revolutionized California agriculture. So why is there no easy answer to the question? Karen Brandon. Los Angeles Times Magazine. January 2, 2005 (www.latimes.com). "Part robot, part tractor, the contraption is an unusual combination of one internal-combustion engine, four rubber tires, eight digital cameras, eight electronic arms and an excruciating number of computer algorithms that choreograph every movement. ... For now, this machine exists exclusively in a virtual citrus orchard on a computer screen.... Many agricultural researchers say machines may offer the best hope for many types of American agriculture that now depend on an immigrant workforce, subsidies and tariffs. Many believe machines offer a better, cheaper and possibly more humane way to harvest the labor-intensive crops that are the hallmark of farming in California, a nearly \$28-billion industry. ... California-the state with the nation's largest and most complicated agricultural labor market-has been down the road to mechanization before, when the tomato harvester revolutionized production of that crop more than 40 years ago. But now, as then, the questions raised by the technology are rife with political, social and economic implications. ... César Chávez, quoting fearful farmworkers in a 1978 article in the Nation, called such machines 'los monstruos,' the monsters. ... Clearly, machine harvesting was a better way to get tomatoes out of the field. Not everyone, however, agreed that ought to be the only goal."

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– Jon Glick, Webmaster, AI TOPICS

Battle Bot: The Future of War? Sharpshooting robots evoke Terminator. The more pertinent question is how these automated soldiers will transform military conflict. Gregory M. Lamb. The Christian Science Monitor. January 27, 2005 (www. csmonitor.com). "This spring, the United States armed forces are expected to deploy 18 Talon robots to Iraq. The semiautonomous machines will be capable of firing rifles, machine guns, grenade launchers, and rockets with better accuracy than human soldiers. They're the latest step in a surge of battlefield 'bots' that are increasingly shouldering the military's most dangerous jobs. ... The evolution of war is at its midpoint, Mr. [John] Pike says. 'First you had human beings without machines. Then you had human beings with machines. And finally you have machines without human beings.' ... If such technological challenges are met, robot armies could someday become so powerful that the idea of war itself could become unthinkable. ... Or would war become easier?"

Fly-Eating Robot Powers Itself. CNN.com. December 29, 2004 (www.cnn.com). "Scientists at the University of the West of England (UWE) have designed a robot that does not require batteries or electricity to power itself. Instead, it generates energy by catching and eating houseflies. Dr. Chris Melhuish and his Bristol-based team hope the robot, called EcoBot II, will one day be sent into zones too dangerous for humans, potentially proving invaluable in military, security and industrial areas. Melhuish, who is director of the Intelligent Autonomous

Systems Lab at the UWE, told CNN that the EcoBot II was a result of a quest for an intelligent robot that could function without human supervision."

Man and the Machines—It's time to start thinking about how we might grant legal rights to computers. Benjamin Soskis. Legal Affairs. January / February 2005 (www. legalaffairs.org). "At some point in the nottoo-distant future, we might actually face a sentient, intelligent machine who demands, or who many come to believe deserves, some form of legal protection. ... At the moment, there is no artifact of sufficient intelligence, consciousness, or moral agency to grant legislative or judicial urgency to the question of rights for artificial intelligence. But some AI researchers believe that moment might not be far off. And as their creations begin to display a growing number of human attributes and capabilities—as computers write poems and serve as caretakers and receptionists-these researchers have begun to explore the ethical and legal status of their creations. ... The work of artificial intelligence often consists of the manufacture of human analogs. In addressing the nature of those creations, we can come closer to understanding our own nature and to appreciating what makes us unique."

A Conversation About Artificial Intelligence, with Rodney Brooks, Eric Horvitz, and Ron Brachman. Television broadcast of The Charlie Rose Show. December 21. 2004 (www.charlierose.com). "Horvitz: I think many passionate researchers in artificial intelligence are fundamentally interested in the question of Who am I? Who are people? What are we? There's a sense of almost astonishment at the prospect that information processing or computation, if you take that perspective, could lead to this. Coupled with that is the possibility of the prospect of creating consciousnesses with computer programs, computing systems some day. It's not talked about very much at formal AI conferences, but it's something that drives some of us in terms of our curiosity and intrigue. I know personally speaking, this has been a core question in the back of my mind, if not the foreground, not on my lips typically, since I've been very young. This is this question about who am I. Rose: ... can we create it? Horvitz: Is it possible ... that parts turning upon parts could generate this?"