Journal #2663

from sdc

8.23.12

Paiute woman first for USA at international pageant Keeping watch over America's historical documents New Wave of Deft Robots Is Changing Global Industry Feds, university test cars that can communicate Calendar Additions MGM UNVEILS PLANS FOR MASSACHUSETTS CASINO Understanding the Indian Arts and Crafts Act of 1990

Paiute woman first for USA at international pageant www.nativetimes.com.

Northern Paiute Woman Pioneers United States' First Appearance at Miss Humanity International Pageant

Member of Reno-Sparks Indian Colony Christina Thomas to Compete in the 2012 Event; Seeks Involvement for People's Choice AwardAlbuquerque, NM (PRWEB) August 22, 2012 Christina Thomas, a young Native American leader of Northern Paiute, Western Shoshone, and Hopi decent, will represent the United States in the 2012 Miss Humanity International Pageant. Marking the first time the U.S. has...

Exclusive Truthout Interview: Sioux Spiritual Leader Speaks Out on Land Sale at

Sacred Site

truth-out.org

The sacred lands of the Lakota are up for sale, again. A grassroots effort led by the Great Sioux Nation is underway to get them back.

Carolyn Harry

Keeping watch over America's historical documents

By The Partnership for Public Service, Published: August 19 | Updated: Monday, August 20,

Thousands of historical documents have disappeared over the years from the National Archives — the patent for the Wright Brothers' airplane, target maps of Hiroshima and Nagasaki, Civil War telegrams written by Abraham Lincoln, a copy of FDR's "Day of Infamy" speech and NASA photographs from space.

Leading the team of investigators seeking to recover America's stolen historical treasures is Kelly Maltagliati, a special agent with the Office of Inspector General at the National Archives and Records Administration (NARA).

Who is Kelly Maltagliati?

POSITION: Special Agent-in-Charge of the Archival Recovery Team, National Archives and

Records Administration-Office of Inspector General

RESIDENCE: Burtonsville, Md. AGE: 52

EDUCATION: Jacksonville State University, B.A.

AWARDS: Samuel J. Heyman Service to America Medal finalist, 2012: Archivist's Special Achievement Award, 2007; Inspector General Award for Excellence, 2004 and 2006; and Award

for Public Service, United States Attorneys' Office, 1999 and 2004

HOBBIES: Cake decorating, sailing

Maltagliati was instrumental in establishing NARA's investigatory Archival Recovery Team eight years ago, and every year since has made a huge impact by locating countless missing historical records and helping secure criminal convictions against transgressors. In addition, she has enhanced security measures at the National Archives, its presidential libraries and regional centers nationwide.

"Kelly has been the champion of the program," said Ross Weiland, a former deputy inspector general who worked with Maltagliati. "She recognized the need. Her investigative style is just to outwork, outlast and out-hustle everyone else, and that is what she has done with this program."

As head of the recovery program, Maltagliati has set up sting operations, engaged in old-fashioned police work, monitored web sites and online auctions like eBay, visited memorabilia and Civil War shows, used social media to reach the public, established a hotline and built a network of "sentinels" throughout the nation to be on the look-out for stolen documents.

There have been a number of notable successes.

Earlier this year, a well-known presidential memorabilia collector pleaded guilty to stealing thousands of original documents from major archival repositories, including the National Archives and the Franklin Roosevelt Presidential Library in Hyde Park, N.Y. The theft included seven copies of President Roosevelt's speeches that contained edits, handwritten additions and his signature. Maltagliati and her team worked with the FBI, helped prepare the search warrants, and identified and recovered the material stolen from the presidential library.

In another case, a contact alerted Maltagliati regarding the sale of numerous historical recordings on eBay, a tip that led to the arrest and 2011 guilty plea by a former longtime National Archives employee who admitted stealing a thousand audio recordings ranging from radio episodes of Dragnet and Gunsmoke to a 1937 radio interview with Babe Ruth. Matagliati's office also recently recovered important Watergate documents, including sealed grand jury testimony that had been inadvertently donated by former special prosecutor Leon Jaworski to a university library.

David Ferriero, the archivist of the United States, said Maltagliati brings "passion to her work" and helps "ensure that the documents we are responsible for are around forever."

"It's not just about protecting pieces of paper, it's about protecting our history," Ferriero said.

Debra Wall, the deputy archivist, said Maltagliati understands the importance of the documents, has developed great respect from the staff of the National Archives, and has taken a proactive approach by making contacts outside the institution among researchers, collectors and dealers who work with historical documents every day.

"She is getting the American people their history back. These are priceless, one-of a-kind documents," said Wall. "We really believe the archives are essential to a democracy, and we take our mission seriously. Kelly has taken it a step further by going out and finding these missing documents."

When she first arrived on the scene, Maltagliati said, officials at the National Archives "didn't want to talk about stolen material because they were embarrassed." In addition, those who collect and sell historical documents and other materials were not always helpful. She said her office has helped change the culture at the Archives, while establishing relationships with many of those who trade in historical materials and now realize that collaboration can help them avoid trouble.

Maltagliati said she wants to be a "good public steward," and finds it "fulfilling" to recover stolen documents and ensure continued public access to these records.

"I can remember the first time I held a pardon in my hand signed by Abraham Lincoln. I was in the treasure vault, and I just felt chills," she said.

This article was jointly prepared by the Partnership for Public Service, a group seeking to enhance the performance of the federal government, and washingtonpost.com. Go to http://washingtonpost.com/wp-srv/politics/fedpage/players/ to read about other federal workers who are making a difference.

New Wave of Deft Robots Is Changing Global Industry

By JOHN MARKOFF Published: August 18, 2012

DRACHTEN, the Netherlands — At the Philips Electronics factory on the coast of China, hundreds of workers use their hands and specialized tools to assemble electric shavers. That is the old way.

At a sister factory here in the Dutch countryside, 128 robot arms do the same work with yogalike flexibility. Video cameras guide them through feats well beyond the capability of the most dexterous human.

One robot arm endlessly forms three perfect bends in two connector wires and slips them into holes almost too small for the eye to see. The arms work so fast that they must be enclosed in glass cages to prevent the people supervising them from being injured. And they do it all without a coffee break — three shifts a day, 365 days a year.

All told, the factory here has several dozen workers per shift, about a tenth as many as the plant in the Chinese city of Zhuhai.

This is the future. A new wave of robots, far more adept than those now commonly used by automakers and other heavy manufacturers, are replacing workers around the world in both manufacturing and distribution. Factories like the one here in the Netherlands are a striking counterpoint to those used by <u>Apple</u> and other consumer electronics giants, which employ hundreds of thousands of low-skilled workers.

"With these machines, we can make any consumer device in the world," said Binne Visser, an electrical engineer who manages the Philips assembly line in Drachten.

Many industry executives and technology experts say Philips's approach is gaining ground on Apple's. Even as Foxconn, Apple's <u>iPhone</u> manufacturer, continues to build new plants and hire thousands of additional workers to make smartphones, it plans to install more than a million robots within a few years to supplement its work force in China.

Foxconn has not disclosed how many workers will be displaced or when. But its chairman, Terry Gou, has publicly endorsed a growing use of robots. Speaking of his more than one million employees worldwide, he said in January, according to the official Xinhua news agency: "As human beings are also animals, to manage one million animals gives me a headache."

The falling costs and growing sophistication of robots have touched off a renewed debate among economists and technologists over how quickly jobs will be lost. This year, Erik Brynjolfsson and Andrew McAfee, economists at the Massachusetts Institute of Technology, made the case for a rapid transformation. "The pace and scale of this encroachment into human skills is relatively recent and has profound economic implications," they wrote in their book, "Race Against the Machine."

In their minds, the advent of low-cost automation foretells changes on the scale of the revolution in agricultural technology over the last century, when farming employment in the United States fell from 40 percent of the work force to about 2 percent today. The analogy is not only to the industrialization of agriculture but also to the electrification of manufacturing in the past century, Mr. McAfee argues.

"At what point does the chain saw replace Paul Bunyan?" asked Mike Dennison, an executive at <u>Flextronics</u>, a manufacturer of consumer electronics products that is based in Silicon Valley and is increasingly automating assembly work. "There's always a price point, and we're very close to that point."

But Bran Ferren, a veteran roboticist and industrial product designer at Applied Minds in Glendale, Calif., argues that there are still steep obstacles that have made the dream of the universal assembly robot elusive. "I had an early naïveté about universal robots that could just do anything," he said. "You have to have people around anyway. And people are pretty good at figuring out, how do I wiggle the radiator in or slip the hose on? And these things are still hard for robots to do."

Beyond the technical challenges lies resistance from unionized workers and communities worried about jobs. The ascension of robots may mean fewer jobs are created in this country,

even though rising labor and transportation costs in Asia and fears of intellectual property theft are now bringing some work back to the West.

Take the cavernous solar-panel factory run by Flextronics in Milpitas, south of San Francisco. A large banner proudly proclaims "Bringing Jobs & Manufacturing Back to California!" (Right now China makes a large share of the solar panels used in this country and is automating its own industry.)

Yet in the state-of-the-art plant, where the assembly line runs 24 hours a day, seven days a week, there are robots everywhere and few human workers. All of the heavy lifting and almost all of the precise work is done by robots that string together solar cells and seal them under glass. The human workers do things like trimming excess material, threading wires and screwing a handful of fasteners into a simple frame for each panel.

Such advances in manufacturing are also beginning to transform other sectors that employ millions of workers around the world. One is distribution, where robots that zoom at the speed of the world's fastest sprinters can store, retrieve and pack goods for shipment far more efficiently than people. Robots could soon replace workers at companies like C & S Wholesale Grocers, the nation's largest grocery distributor, which has already deployed robot technology.

Rapid improvement in vision and touch technologies is putting a wide array of manual jobs within the abilities of robots. For example, <u>Boeing</u>'s wide-body commercial jets are now riveted automatically by giant machines that move rapidly and precisely over the skin of the planes. Even with these machines, the company said it struggles to find enough workers to make its new 787 aircraft. Rather, the machines offer significant increases in precision and are safer for workers.

And at Earthbound Farms in California, four newly installed robot arms with customized suction cups swiftly place clamshell containers of organic lettuce into shipping boxes. The robots move far faster than the people they replaced. Each robot replaces two to five workers at Earthbound, according to John Dulchinos, an engineer who is the chief executive at Adept Technology, a robot maker based in Pleasanton, Calif., that developed Earthbound's system.

Robot manufacturers in the United States say that in many applications, robots are already more cost-effective than humans.

At an automation trade show last year in Chicago, Ron Potter, the director of robotics technology at an Atlanta consulting firm called Factory Automation Systems, offered attendees a spreadsheet to calculate how quickly robots would pay for themselves.

In one example, a robotic manufacturing system initially cost \$250,000 and replaced two machine operators, each earning \$50,000 a year. Over the 15-year life of the system, the machines yielded \$3.5 million in labor and productivity savings.

The Obama administration says this technological shift presents a historic opportunity for the nation to stay competitive. "The only way we are going to maintain manufacturing in the U.S. is

if we have higher productivity," said Tom Kalil, deputy director of the White House Office of Science and Technology Policy.

Government officials and industry executives argue that even if factories are automated, they still are a valuable source of jobs. If the United States does not compete for advanced manufacturing in industries like consumer electronics, it could lose product engineering and design as well. Moreover, robotics executives argue that even though blue-collar jobs will be lost, more efficient manufacturing will create skilled jobs in designing, operating and servicing the assembly lines, as well as significant numbers of other kinds of jobs in the communities where factories are.

And robot makers point out that their industry itself creates jobs. A report commissioned by the <u>International Federation of Robotics</u> last year found that 150,000 people are already employed by robotics manufacturers worldwide in engineering and assembly jobs.

But American and European dominance in the next generation of manufacturing is far from certain.

"What I see is that the Chinese are going to apply robots too," said Frans van Houten, Philips's chief executive. "The window of opportunity to bring manufacturing back is before that happens."

A Faster Assembly Line

Royal Philips Electronics began making the first electric shavers in 1939 and set up the factory here in Drachten in 1950. But Mr. Visser, the engineer who manages the assembly, takes pride in the sophistication of the latest shavers. They sell for as much as \$350 and, he says, are more complex to make than smartphones.

The assembly line here is made up of dozens of glass cages housing robots made by Adept Technology that snake around the factory floor for more than 100 yards. Video cameras atop the cages guide the robot arms almost unerringly to pick up the parts they assemble. The arms bend wires with millimetric accuracy, set toothpick-thin spindles in tiny holes, grab miniature plastic gears and set them in housings, and snap pieces of plastic into place.

The next generation of robots for manufacturing will be more flexible and easier to train.

Witness the factory of <u>Tesla Motors</u>, which recently began manufacturing the Tesla S, a luxury sedan, in Fremont, Calif., on the edge of Silicon Valley.

More than half of the building is shuttered, called "the dark side." It still houses a dingy, unused <u>Toyota Corolla</u> assembly line on which an army of workers once turned out half a million cars annually.

The Tesla assembly line is a stark contrast, brilliantly lighted. <u>Its fast-moving robots, bright Tesla red</u>, each has a single arm with multiple joints. Most of them are imposing, 8 to 10 feet tall, giving them a slightly menacing "Terminator" quality.

But the arms seem eerily human when they reach over to a stand and change their "hand" to perform a different task. While the many robots in auto factories typically perform only one function, in the new Tesla factory a robot might do up to four: welding, riveting, bonding and installing a component.

As many as eight robots perform a ballet around each vehicle as it stops at each station along the line for just five minutes. Ultimately as many as 83 cars a day — roughly 20,000 are planned for the first year — will be produced at the factory. When the company adds a sport utility vehicle next year, it will be built on the same assembly line, once the robots are reprogrammed.

Tesla's factory is tiny but represents a significant bet on flexible robots, one that could be a model for the industry. And others are already thinking bigger.

Hyundai and Beijing Motors recently completed a mammoth factory outside Beijing that can produce a million vehicles a year using more robots and fewer people than the big factories of their competitors and with the same flexibility as Tesla's, said Paul Chau, an American venture capitalist at WI Harper who toured the plant in June.

The New Warehouse

Traditional and futuristic systems working side by side in a distribution center north of New York City show how robotics is transforming the way products are distributed, threatening jobs. From this warehouse in Newburgh, C & S, the nation's largest grocery wholesaler, supplies a major supermarket chain.

The old system sprawls across almost half a million square feet. The shelves are loaded and unloaded around the clock by hundreds of people driving pallet jacks and forklifts. At peak times in the evening, the warehouse is a cacophony of beeping and darting <u>electric vehicles</u> as workers with headsets are directed to cases of food by a computer that speaks to them in four languages.

The new system is much smaller, squeezed into only 30,000 square feet at the far end of the warehouse and controlled by just a handful of technicians. They watch over a four-story cage with different levels holding 168 "rover" robots the size of go-carts. Each can move at 25 miles an hour, nearly as fast as an Olympic sprinter.

Each rover is connected wirelessly to a central computer and on command will race along an aisle until it reaches its destination — a case of food to retrieve or the spot to drop one off for storage. The robot gathers a box by extending two-foot-long metal fingers from its side and sliding them underneath. It lifts the box and pulls it to its belly. Then it accelerates to the front of the steel cage, where it turns into a wide lane where it must contend with traffic — eight robots are active on each level of the structure, which is 20 aisles wide and 21 levels high.

From the aisle, the robots wait their turn to pull into a special open lane where they deposit each load into an elevator that sends a stream of food cases down to a conveyor belt that leads to a large robot arm.

About 10 feet tall, the arm has the grace and dexterity of a skilled supermarket bagger, twisting and turning each case so the final stack forms an eight-foot cube. The software is sophisticated enough to determine which robot should pick up which case first, so when the order arrives at the supermarket, workers can take the cases out in the precise order in which they are to go on the shelves.

When the arm is finished, the cube of goods is conveyed to a machine that wraps it in clear plastic to hold it in place. Then a forklift operator summoned by the computer moves the cube to a truck for shipment.

Built by <u>Symbotic</u>, a start-up company based in the Boston area, this robotic warehouse is inspired by computer designers who created software algorithms to efficiently organize data to be stored on a computer's hard drive.

Jim Baum, Symbotic's chief executive, compares the new system to a huge parallel computer. The design is efficient because there is no single choke point; the cases of food moving through the robotic warehouse are like the digital bits being processed by the computer.

Humans' Changing Role

In the decade since he began working as a warehouseman in Tolleson, Ariz., a suburb of Phoenix, Josh Graves has seen how automation systems can make work easier but also create new stress and insecurity. The giant facility where he works distributes dry goods for Kroger supermarkets.

Mr. Graves, 29, went to work in the warehouse, where his father worked for three decades, right out of high school. The demanding job required lifting heavy boxes and the hours were long. "They would bring in 15 guys, and only one would last," he said.

Today Mr. Graves drives a small forklift-like machine that stores and retrieves cases of all sizes. Because such workers are doing less physical labor, there are fewer injuries, said Rome Aloise, a Teamsters vice president in Northern California. Because a computer sets the pace, the stress is now more psychological.

Mr. Graves wears headsets and is instructed by a computerized voice on where to go in the warehouse to gather or store products. A centralized computer the workers call The Brain dictates their speed. Managers know exactly what the workers do, to the precise minute.

Several years ago, Mr. Graves's warehouse installed a German system that automatically stores and retrieves cases of food. That led to the elimination of 106 jobs, roughly 20 percent of the work force. The new system was initially maintained by union workers with high seniority. Then that job went to the German company, which hired nonunion workers.

Now Kroger plans to build a highly automated warehouse in Tolleson. Sixty union workers went before the City Council last year to oppose the plan, on which the city has not yet ruled.

"We don't have a problem with the machines coming," Mr. Graves told city officials. "But tell Kroger we don't want to lose these jobs in our city."

Some jobs are still beyond the reach of automation: construction jobs that require workers to move in unpredictable settings and perform different tasks that are not repetitive; assembly work that requires tactile feedback like placing fiberglass panels inside airplanes, boats or cars; and assembly jobs where only a limited quantity of products are made or where there are many versions of each product, requiring expensive reprogramming of robots.

But that list is growing shorter.

Upgrading Distribution

Inside a spartan garage in an industrial neighborhood in Palo Alto, Calif., a robot armed with electronic "eyes" and a small scoop and suction cups repeatedly picks up boxes and drops them onto a conveyor belt.

It is doing what low-wage workers do every day around the world.

Older robots cannot do such work because computer vision systems were costly and limited to carefully controlled environments where the lighting was just right. But thanks to an inexpensive stereo camera and software that lets the system see shapes with the same ease as humans, this robot can quickly discern the irregular dimensions of randomly placed objects.

The robot uses a technology pioneered in <u>Microsoft</u>'s Kinect motion sensing system for its Xbox video game system.

Such robots will put automation within range of companies like Federal Express and United Parcel Service that now employ tens of thousands of workers doing such tasks.

The start-up behind the robot, Industrial Perception Inc., is the first spinoff of Willow Garage, an ambitious robotics research firm based in Menlo Park, Calif. The first customer is likely to be a company that now employs thousands of workers to load and unload its trucks. The workers can move one box every six seconds on average. But each box can weigh more than 130 pounds, so the workers tire easily and sometimes hurt their backs.

Industrial Perception will win its contract if its machine can reliably move one box every four seconds. The engineers are confident that the robot will soon do much better than that, picking up and setting down one box per second.

"We're on the cusp of completely changing manufacturing and distribution," said Gary Bradski, a machine-vision scientist who is a founder of Industrial Perception. "I think it's not as singular an event, but it will ultimately have as big an impact as the Internet.

A version of this article appeared in print on August 19, 2012, on page A1 of the New York edition with the headline: Skilled Work, Without the Worker.

The iEconomy

Articles and multimedia in <u>this series</u> examine the challenges posed by increasingly globalized high-tech industries.

 $^-$

bit.ly

Feds, university test cars that can communicate

ANN ARBOR, Mich. (AP) — In a few weeks, about 2,800 cars, trucks and buses will start talking to each other on the streets of Ann Arbor, Mich., in a giant experiment that government officials are hoping will lead to safer roads. Wireless devices will allow the vehicles to send signals to each other

ADDITIONAL 2012 CALENDAR IMPORTANT DATES AND EVENTS

See weblinks for more information.

BIA Sacred Sites Listening Sessions

Thurs., Aug. 23: BIA Sacred Sites Listening Session, Prior Lake, MN (1-4pm)

Friday, Aug. 24: BIA Sacred Sites Listening Session, Mohegan Sun, CT (9-12noon)

Tues., Aug. 28: BIA Sacred Sites Listening Session, Portland, OR (9-12noon)

For more information: http://www.bia.gov/cs/groups/public/documents/text/idc-020726.pdf Federal Register notices on listening sessions:

http://www.gpo.gov/fdsys/pkg/FR-2012-08-02/pdf/2012-18891.pdf

NATHPO Conference and Training www.nathpo.org

Note: There are two different registration forms and fees for the conference and the training. Both events at the Suquamish Clearwater Resort.

Fri., Aug. 24: Pre-registration rate deadline for NATHPO Conference

Sat., Aug. 25: Cut-off date for guaranteed room rate at Clearwater Resort, Suquamish, WA

Agenda Outline:

Mon., Sept. 10: NATHPO Conference starts, including:

- -- NPS consultation on cultural landscapes
- -- Tech Fair
- -- Federal-Tribal Roundtable on Tribal Landscapes
- -- Opening Reception

Tues., Sept. 11: NATHPO Conference

Wed., Sept. 12: NATHPO Conference

Thurs., Sept. 13: THPO Only -- Financial Admin. trng (pre-register required by Aug. 13)

Fri., Sept. 14: THPO Only -- Financial Admin. trng

Rural Utilities Service Tribal Consultation Webinars for Program Alternative:

Two webinars on Friday, August 24, 2012

1st: 10-12noon Eastern 2nd: 2-4pm Eastern

For more information, contact:

Mark Plank, Director, Engineering and Environmental Staff

Wark.Plank@wdc.usda.gov

USDA Rural Development/Rural Utilities Service, Washington, DC

(202) 720-1649

MGM UNVEILS PLANS FOR MASSACHUSETTS CASINO

SPRINGFIELD, Mass. — Las Vegas-based MGM Resorts International re-entered the Massachusetts casino sweepstakes on Wednesday with an ambitious \$800 million plan for a resort entertainment complex in the heart of downtown Springfield.

Tuition FREE Training - Understanding the Indian Arts and Crafts Act of 1990 August 22, 2012

This event requires registration: http://www.kerretvonline.com Register Now at https://www.kerretvonline.com/login/index.php for the first Tuition Free Interactive Online Courses Launched on Kerretv (Key-thee-duh, Creek word for "Learning") Online For Kerretv Online login instructions go to https://nativelearningcenter.com/wp-content/uploads/2012/07/KerretvOnline_Instructions.pdf Instructor: Ken Van Wey and Ashley Fry from the U.S. Department of the Interior, Indian Arts and Crafts Board Course Description: The Indian Arts and Crafts Act of 1990 (P.L. 101-644) is a truth-in-advertising law that prohibits misrepresentation in marketing of Indian arts and crafts products within the United States. It is illegal to offer or display for sale, or sell any art or craft product in a manner that falsely suggests it is Indian produced, an Indian product, or the product of a particular Indian or Indian Tribe or Indian arts and crafts organization, resident within the United States. This class will explain how the act is applied and steps to take if you think it has been violated. Course Objectives: After this course, attendees will be able to: • Define an Indian product under the act; • Identify the penalties for violating the Act; • Describe the process of reporting a violation.