What’s So Cool About Manufacturing - Time to Vote
by Bob Zaruta, President/CEO, NWIRC

It’s time to place your vote - for What’s So Cool About Manufacturing (WSCM). For the past five months, middle school students across the region have been working with a manufacturer partner to tell their ‘what’s so cool’ story. This student video contest started six years ago by our sister-IRC (MRC in Lehigh Valley, PA) and has grown now to 15 regional contests in Pennsylvania with participation by 252 school/manufacturer teams. NWIRC is privileged to coordinate two of the state-wide contests: Northwest (Erie and Crawford Counties) with 18 teams and West Central (Mercer and Lawrence Counties) with 9 teams. We may coordinate these programs, but it couldn’t be done without numerous community partners, sponsors, and of course the schools and manufacturers. Also, within NWIRC’s footprint, there is a North Central contest, led by Workforce Solutions.

The goal of WSCM is to change perceptions and create awareness about the cool and vast manufacturing career opportunities in our own backyard. And, for the schools and communities to help spread the word. This school year’s program comes to a close later this month for Northwest, West Central, and North Central, with awards ceremonies crowning several judged categories, as well as the Viewer’s Choice Award winner. This award is determined by online voting and is an opportunity for the entire community to get involved and learn more about our local manufacturers. You can check out the participating schools and companies at www.WhatsSoCool.org and then cast your ballot during the designated voting dates:

North Central: March 4-6
Northwest: March 11-13
West Central: March 18-20

Stop Training Your Employees - (the Old Way)
by Desiree Schnoor, Virtual QE

Did you know that almost 1 in every 2 new hires will quit their job within a year, and of those who do quit, half of them quit quickly; within just 3 months of starting. This is a huge kick in the wallet to employers, who just spent substantial amounts of time and money training that new person, an average of 2 to 3 weeks. That trainer was probably pulled off of a revenue producing activity to train the new hire, who in just a few days would leave the company. Such staggering statistics demand a solution. “Stop training your new employees,” says CEO Shawn Findlater. “At least, stop the old way, of long, expensive training programs. Video work instructions let you train a lot of new employees faster, cheaper and better.”

Mr. Findlater is talking about the revolutionary training tool called video work instructions, and the ability to turn traditional training on its head. Replacing traditional work instructions, video gives a faster, more effective, full-picture training tool to employees, who can perform tasks like pros, after watching experts perform the tasks. Companies see training speed, standardization, efficacy, safety and cost improved when using video work instructions.
video work instructions. But that’s not all. Video work instructions’ capabilities go far beyond new hire training and on-boarding, by making cross training seamless and fast. Video brings new meaning to job flexibility by quickly allowing employees to train on new tasks quicker and more effectively than long hours of learning from an expert. Video work instructions are launching continuous improvement opportunities and job satisfaction, and reducing turnover.

Training new and existing employees is usually costly and takes a long time. Video significantly reduces training time and increases training effectiveness. It also makes identifying and implementing cross training opportunities for employees seamless. Video brings new meaning to job flexibility by quickly allowing employees to train on new tasks much quicker and effectively than long hours of learning from an expert.

**Side Note:** A two-part workshop is scheduled for March 29 and April 5 for companies to learn best practices for creating their first video work instruction. The workshop also includes video glasses, expert editing of a 10-minute training video, and assistance developing a plan to integrate into your training program. Contact Molly Reichard at NWIRC for more information at (814) 217-6067 or mreichard@nwirc.org.

### Welcome to the Age of Cobots

**By Stu Shepherd, Universal Robots**

It’s a thrilling time to be working in the world of robotics. That may seem like a given. After all, every day the headlines are filled with new breakthroughs in robotics, and it seems like we humans are finally ready to jump on board. New data from NPR and Edison Research tells us that as of January 2018, one in six Americans now own a smart speaker, up 128% from just a year ago. Amazon uses robots extensively to accelerate its supply chain and make single-day and same-day delivery a reality for customers around the world. Giant Food Stores is introducing robotic assistants—complete with googly eyes—in every one of its 172 stores, and Walmart is releasing a fleet of robotic janitors to do everything from mopping the floors to collecting data in its stores. And while our cars may not be fully self-driving (yet), robotics, automation, and artificial intelligence (AI) are making our vehicles safer and smarter than ever.

And yet it isn’t these consumer-facing robots that make me excited to go to work every day. What has me energized and eager to see what’s next are the amazing things I get to witness far from the public eye—from my vantage point inside Universal Robots. From here, I can see how businesses large and small are using cobots to change the way the products we rely on every day are designed, manufactured, and delivered.

Unlike traditional industrial robots, cobots are limited in both power and speed, and they are applied to industry-approved safety standards to avoid human injury. Capable of being easily programmed to complete multiple tasks, cobots are designed to assist human beings—not take the place of human workers. In many cases, the cobot takes the form of an arm, providing the worker with an extra set of hands. Cobots protect human workers by reducing the risk of injury from dangerous jobs and repetitive movements, and they improve overall equipment efficiency—all while enabling human workers to get their jobs done faster and more easily than ever before.

It all started a decade ago, in December of 2008, when Universal Robots sold the world’s first commercially successful collaborative robot—or cobot—to Linatex, a Danish supplier of technical plastics and rubber for industrial applications. Cobots were in their infancy at the time, and few people aside from a small handful of robotics engineers and developers had any inkling of the true potential of these small, nimble robots. Linatex recognized that potential and took a leap of faith, installing their shiny new cobot not in a safety cage apart from other workers, but right on the factory floor. Working together, the Linatex cobot and a human workforce instantly took robot-human collaboration to a whole new level. The age of the cobot had arrived. Ten years later, the market for cobots has exploded. In 2018 alone, the cobot market grew by more than 60%, nearing $500M in global sales.

That’s great news for businesses large and small, and yet it has raised the red flag for workers who worry that the wave of robots entering the workforce will bring more harm than good—at least when it comes to employment.

By automating and streamlining both skilled and unskilled tasks, many workers see robots and cobots alike as a mechanical workforce that is coming to “take our jobs.”

What’s interesting is that, in reality, demand for manpower is actually outpacing supply. Baby boomers are retiring,
Continued from Page 2

and Gen-X, Gen-Y, and Millennials are not interested in manufacturing and warehouse jobs. There simply aren’t enough human workers to get the job done. As a result, even companies who never viewed robotics as a viable solution in the past are suddenly clamoring for help. Cobots are making that help highly accessible and affordable, opening the door for small- and mid-sized enterprises (SMEs) who can now use advanced technology to supplement a team of one, two, or ten workers. So are robots really poised to take our jobs?

According to recent estimates by the World Economic Forum’s 2018 Future of Jobs Report, while it’s true that jobs are likely to be lost as companies shift to more automation—as many as 75 million over the next four years—it’s also true that as many as 133 million new jobs will be created in the same period of time. What is shifting is the division of labor between man and machine, and collaborative robots sit smack in the middle of that transition.

Side Note: NWIRC is partnering with NEFF and Penn-Northwest Development Corporation for Cookies and Cobots on March 21 from 11:30-3:00pm at the Park Inn, West Middlesex PA. This no-cost program provides details on Universal Robots, as well as other products that can help make your automation seamless. Stay tuned for more program dates being scheduled in the region. More details at www.nwirc.org/events.

Gearing Up for Supply Chain Workshops

Competition is no longer strictly between companies, it’s between supply chains. The volatile economy means that manufacturers have to be much more agile, flexible, and responsive to external pressures. Those with optimized supply chains experience benefits like lower costs, better delivery, increased quality, and competitive edge.

NWIRC is offering two workshops this month focused on supply chain optimization and supply chain risks. A half-day Supply Chain Optimization for Leaders workshop on March 27 provides an executive-level overview, highlighting the importance of understanding the inter-dependencies in your supply chain. The program introduces a constraints-based approach of supply chain optimization and reviews key elements required for optimization of the supply chain. During the workshop, the interactive beer game will provide a role-play simulation that lets participants experience typical supply chain problems.

Organizations face many risks to their supply chain during regular operations. Whether these risks are natural or man-made, by accident, or by design, disruptions can occur. When they do, how you have prepared for them, and how you respond, can spell the difference between success, or perhaps complete failure. On March 28, a full-day Supply Chain Risk Management workshop steps through five elements of preparing for risk, including 1) risk management concepts & philosophies; 2) elements of a risk management program; 3) the risk management process; 4) risk management tools; and 5) risk management metrics.

Both programs will be instructed by Stephan Brady, PhD, who has been a successful leader and manager for over 30 years with experience in supply chain management, business, logistics, and public policy. He achieved the rank of Lieutenant Colonel in the Air Force, was recognized for his outstanding performance as a logistics practitioner, and earned a PhD in Business Administration (Logistics/Supply Chain and I.E.) from Penn State University. See more details on the programs at www.nwirc.org/events.

Calling all Plastics Manufacturing Companies

Governor Tom Wolf called it a “once in a generation” opportunity. The Shell cracker plant being built in Beaver County is poised to be the tipping point in attracting other supply chain companies within the petrochemical industry. Are you interested in finding out how your company might benefit? The NW PA Oil & Gas HUB has partnered with NW Commission and other economic development agencies to gather—and share— information about the economic impact of the Shell cracker plant. A meeting is scheduled for plastics manufacturers on March 21, 2019 at 8:00am and will be held at The American Injection Molding Institute (AIM) at 6100 West Ridge Road, Erie.

The intent of the meeting is to (1) inform how the new PE (cracker) plant translates to potential time/cost savings; (2) understand how and where PE is currently sourced; (3) discuss potential needs and opportunities for warehousing and distribution of Shell PE pellets within the Northwest PA region to reduce shipping costs (4) understand how the region can maximize benefits of having the Shell plant nearby; and (5) share information on the Plastic’s IP Apprenticeship program. To help regional plastic companies train their current workforce, a Plastic’s Apprenticeship program has been developed by local manufacturers and is open to all plastic companies in NW PA for training mid-level managers. This certified Apprenticeship program will soon be recruiting for the second cohort.

This meeting is limited to 20 companies and RSVPs are required: at lhummer@keystonecec.org.
YOUR STRATEGIC BUSINESS ADVISORS

If you have questions, or would like to speak with someone from NWIRC about services, please contact your Strategic Business Advisor (SBA):

**Tom Weible**  
814.590.5202  
Cameron, Clearfield, Elk, Jefferson, McKean & Potter Counties

**Susan Hileman**  
814.572.2077  
Forest, Mercer, Venango, Clarion Counties & Titusville

**Lisa Pustelak**  
814.683.1034  
Crawford, Warren Counties, Corry & Edinboro

**Andrew Idzik**  
814.217.6068  
Erie County & Bradford

**UPCOMING EVENTS**

**Engage and Equip Your Team with Kata**  
March 12-13  
Location: Erie  
The focus of this 2-day training is Improvement and Coaching Kata— a pattern of scientific-thinking used to achieve goals and challenges turning employees into problem-solvers. Participants also receive a 2-hour post-workshop coaching session onsite at their facility.

**Lean for the Office**  
March 19  
Location: DuBois  
Lean principles focus on reductions in waste due to overproduction and waiting. You don’t need to be on the shop floor to benefit from improving productivity in whatever your role. This training will help participants understand how to apply lean principles and tools to office and administrative processes.

**IATF 16949 Internal Auditor**  
March 26-28  
Location: Erie  
Training of this automotive standard will provide understanding of quality management principles in context with ISO 9001:2015 and the IATF 16949:2016, along with techniques of process-based auditing.

**Supply Chain Optimization Programs**  
March 27 and 28  
Location: St Marys  
Attend one or both of these workshops to sharpen your supply chain efficiency. **Supply Chain Optimization for Leaders** is a half-day program on March 27 and **Supply Chain Risk Management** is a full day workshop on March 28.

For more information or to register for training, visit www.nwirc.org