

Interface

Journal of the WTEA

Volume 57
Number 2

Winter
2017 - 2018

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Feature Article
By NC3



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WTEA Refund Policy

The WTEA Membership fee is not refundable. The WTEA School Subscription fee is not refundable, but is transferrable to other staff in the same school district. The portion of the non-member conference registration fee equal to the amount of the WTEA membership fee is non-refundable. Refunds for Conference Registration and/or Awards Banquet must be received by US Mail or by email at least 15 days prior to the event. Exhibit space cancelled after Jan. □

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From the President's Desk

By Steve Meyer, WTEA President

Hello and Happy Holidays everyone. It is hard to believe that first semester is at the end and almost half the school year is over already. When you are in the education business, time always flies, that is for sure. I hope all of you have had some time over the holidays to relax and spend time with family and friends. I spent time snowmobiling, working in the shop, watching football, and hanging out with my boys.

I have now been in my new position as Manager of STEM Education and Development at Fox Valley Technical College (FVTC) for about five months. I am really enjoying myself. This position allows me to work with lots of schools, businesses, and informal education organizations on enhancing STEM education throughout Northeast Wisconsin. Traveling around to different schools and participating on different advisory boards has allowed me to see all of the great things going on in the classrooms. I am obviously biased, however, when I go into schools. It always seems like the Technology and Engineering teachers are the real "Movers and Shakers" in the school. I am really impressed with all the partnerships that Technology and Engineering teachers have formed with business and industry and other discipline areas. This is a definite increase from years past and shows that your efforts, along with many WTEA initiatives are having a positive effect on the education of our youth.

I have had the opportunity to tour lots of different manufacturing companies located throughout the Fox Valley this fall. I am blown away at the sophistication of companies such as Oshkosh Corporation, Plexus, Sargento, Kondex, KI, etc. I often times talk with HR, Plant Managers, and the Head of Operations. The recurring theme throughout all of these visits is centered around the shortage of a highly skilled, highly knowledgeable, highly passionate workforce. EVERYONE is looking to hire good people. People that know a little bit about a lot of things can adapt to change, solve problems, collaborate

with others, and can learn. Business and Industry need all of us to step up our game and help give young people rich opportunities to learn and be successful in our ever changing world. I recently went to a presentation at a manufacturing conference on Artificial Intelligence

(AI). The speaker used AI as an umbrella term covering the areas of automation, robotics, and data analytics. He gave some startling facts about how AI is going to once again revolutionize and create dramatic changes in manufacturing over the next three years. Employers already have a shortage of talent in these areas of AI. It will be our job as STEM teachers to ensure that our students are prepared not only for the careers of today, but the careers of the future. I am confident that each and every one of you, along with the WTEA, will

meet this challenge head on.

This edition of the Interface is again packed with great information. Our conference will be here before you know it so check out registration information, Vice-President candidate bios, and conference schedule overviews. Be sure to check out our Feature Article from our friends and partners at the National Coalition of Certification Centers (NC3). Other things to look for include:

- Spring Conference raffle information,
- SkillsUSA update,
- Ashwaubenon Tech Nights,
- Apprenticeship updates and activities,
- The development of the WTEA Business & Industry Advisory Team,
- Life After the Classroom by retiree Jay Ruetten,
- and many, many more articles, ads, and various important announcements.

I hope you enjoy this issue of the Interface.

If you have not already, be sure to save the date for the annual conference on March 7 - 9, 2018 at the Chula Vista in the Dells. Have a great start to the new year and keep being the "Movers and Shakers" in your schools and communities. Please let us know if we can be of help.



Plan now to attend the 49th WTEA Annual Conference

"Educate, Inspire, Innovate"

March 7 - 9, 2018

• Chula Vista Resort

• Wisconsin Dells

WTEA BOARD NEWS

Fall 2017 WTEA Board Meeting Highlights

By Matt Schultz, WTEA Secretary/Treasurer

The following summary highlights the Fall 2017 WTEA Board of Directors meeting held October 14th.

- New Appointments: Bryan Albrecht “Advisory Council Lead” formally called “Industry Representative.”
- WTEA Conference is looking to partner with supporting companies or organizations to sponsor different events at the Conference. There are plenty of opportunities for companies to get involved on all three days of the conference. Stay tuned to hear more about different opportunities. Contact Joe Cointea if interested in learning more. joe.cointea@wtea-wis.org.
- WTEA Conference vendor exhibit spaces are sold out! WTEA is looking to be more creative with spacing to allow more vendors to attend the Conference.
- The WTEA Awards Banquet is being moved to Wednesday night, March 7th, 2018.
- Transcript high school credits with local Technical College. Contact your local technical college to set up this opportunity for your students.
- The WTEA is encouraging members to host a “High-Tech” weekend in your area. Topics can include a wide variety of subjects; CNC, Lasers, 3-D printers, Carpentry, Auto, Machining, etc. For more information contact Jesse Domer: domerj@watertown.k12.wi.us
- Doug MacKenzie, Interface Editor, is looking for more general members to submit articles. A ten dollar credit towards renewed dues will be awarded for those members who get an article published in the Interface.

*For additional information about this meeting contact any member of the Board of Directors.
Complete minutes are available from Matt Schultz at mjschult@kUSD.edu.*

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Pathways

By Mike Cattelino, Fox Valley Technical College



Career planning, ACP, pathways, etc. are certainly top of mind topics in our classrooms these days. Our youngest daughter is going through the process in middle school now. Personally, I look forward to learning about all the things that she discovers as the process continues. Great to see and hear the

excitement as career choices become clearer, potential jobs get explored and lifestyles dreamed about.

I have talked with many WTEA members since I have been around the association about the process of career pathway development. I have always felt that the K-12 system has a crucial role in preparing our future workforce. That preparation is not necessarily technical in nature but more about awareness and exploration. There are so many career options for young adults that without some guidance, they can get lost in the hunt for the careers that they may not even realize yet that they will

ultimately find rewarding. My retired boss once said that "They don't even know what they don't know." So true.

Consider the inefficiencies in the education that can occur. When the technical college system enrolls a student, we have some confidence that they know that they want to have a career in that respective field of study. The system, and taxpayers, cannot afford to take time for career exploration when employers are expecting a person to exit the graduation ceremony, walk into their business, and be reasonably productive. We indeed do see people in our classrooms that are not sure that the program that they are in is a wise choice, but that is thankfully not the norm.

My own pathway will be evolving by the time you have reviewed this version of the Interface. I have thoroughly enjoyed and treasured the time that I have spent serving as the WTEA Board Vice-President. I look forward to welcoming the new VP. I will remain on the board as a Technical College representative, but that service may conclude in the near future as well. I truly want to give all of the future leaders of this association every chance to grow and lead this organization so I feel it is time to move further down the path.

- Dates to Remember -

March 1	SkillsUSA Membership Deadline	
March 7 - 9	49th Annual WTEA Conference	Wisconsin Dells, WI
March 21 - 23	ATEA National Conference	Gateway Technical College
April 11 - 14	ITEEA 80th Anniversary Conference	Atlanta, GA
April 24 - 25	45th SkillsUSA State Conference	Madison, WI
June 25 - 29	54th Annual SkillsUSA Championships	Louisville, KY
July 9 - 12	Automotive Technology Summer Institute	NWTC, Green Bay
October 10-12	Career Pathways Network National Conference	Louisville, KY
Nov 28 - Dec 1	ACTE Career Tech National Conference	San Antonio, TX
March 6 - 8, 2019	Celebrating our 50th Annual WTEA Conference	Wisconsin Dells, WI

CANDIDATE

Candidate for WTEA Vice-President

Duane R. Leeser

Lancaster High School
806 E Elm, Lancaster, Wisconsin 53813
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leeserd@lancastersd.k12.wi.us

Personal Information

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608-723-6556
dpleeser@tds.net

I am married to my wife Penny (36 years), have three children, Tyler age 31, Travis age 26, and Tiffany age 22.

Education & Certification

BS in Technology Education — UW-Platteville (July 1984) 220 license
BS in Drivers Education — UW-Platteville (July 1984) 450 license

Professional Experience

1993-1995 Technology Education Instructor — Wyalusing Academy
1995-2001 Technology Education Instructor — Boscobel High School
2001-Current Technology Education Instructor — Lancaster High School
2001-Current Driver Education — Lancaster High School via Southwest Technical College
Currently I teach Technology Education at Lancaster High School and am the School to Work Coordinator. I teach all the classes that are currently being offered at Lancaster with the exception of the PLTW Civil Engineering and Architect class. I am PLTW certified in IED and POE.
Received the WTEA Inspire Award in 2016.
Nominated for WTEA Teacher of the Year in 2015.
Sat on the DPI evaluation committee to see if PLTW courses would qualify for math and science equivalency credit.

Other Work Experience

1991-Current — Penny's 1-Hour Photo Owner/Photographer
1981-1992 — Hardees Restaurant Manager

Professional Activities

I was in the Lancaster Jaycees for 10 years where I held a variety of office positions including President for 1 year. I am currently the Head Football Coach of the Lancaster Youth Football, overseeing 5-8th grade youth football. Before that I was an assistant football coach at Boscobel High School. I have coached a variety of activities in our Summer rec program.

Position Statement

Ever since I attended my first WTEA conference in 1983 as a student at UW-Platteville, I have seen this organization do some great things for the technology education field. As a small business owner myself and 11 years of experience in the private sector, I feel my leadership skills have been "honed" by some very fine people. While in the private sector, I always had that passion to get into the education field and when my opportunity arose I jumped at the chance. I want to bring some of that leadership and experience to the WTEA. I love going to other schools and see what everyone else is doing. I look forward to serving on the board of WTEA and keeping it strong for years to come.



CANDIDATE

Candidate for WTEA Vice-President

Emily Fransway

Personal Information

N6520 County Rd H Elk Mound, WI

Home Phone - (715)459-4120 Work Phone - (715)684-3321 EX.4137

E-mail - efransway@bwsd.k12.wi.us



Education & Certification

UW - Stout Graduated with a Technology Education Degree in December 2015

Currently hold a 1220 Technology Education License

PLTW - Intro to Engineering Certified

Haas TL Series Operator Training

Haas CNC Lathe Programming Training

Haas TM Series Operator Training

Haas CNC Mill Programming Training

Professional Experience

I am currently a Technology Education teacher at Baldwin-Woodville High School in Baldwin, Wisconsin. I have been teaching here since January 2016. It is a two person department and I teach more of the metals and autos side of Technology Education.

Leadership, Awards and Recognition

I was a WTEA Scholarship award recipient my senior year of High School.

Position Statement

I would love to get more involved in my field of teaching. I am a people person and I love to make connections, shake hands and be involved. With being a young teacher I could benefit the WTEA with fresh, contemporary ideas in the Technology Education field. I feel as though I am pretty up to date on what is happening in the STEAM world. I could create meaningful professional development opportunities for everyone. I know what new Technology Education Teachers struggle with the most and I know where the gaps are in this field. I will do my best to help all Technology Education Teachers get their questions answered through professional development and the WTEA yearly conference. I believe being a female that wants to be very involved in the Technology Education field could inspire more females to do the same. I feel like this opportunity could benefit me also in becoming a better teacher with getting myself involved and learning as much as I can in my field of teaching.

- NOTICE -

Ballots for the office of WTEA Vice-President
will be mailed out to all current members in January.



Ballots must be returned to the WTEA office
by U.S. Mail with a post mark
no later than Friday, February 23, 2018.

CANDIDATE

Candidate for WTEA Vice-President

Bob Moorhead

Personal Information

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Education & Certification

Bachelors of Science in Technology Education from UW-Stout
National Institute for Metalworking Skills - Machining Level 1
Autodesk Revit Architecture Level 1 Master Academy
Project Lead The Way - Gateway training

Professional Experience

I have been teaching Technology Education for the last eight years at Chetek-Weyerhaeuser Area School District. My present course load consists of construction, machining, and welding. I am also a SkillsUSA advisor. Prior to my current position, I taught for seven years at Northstar Middle School in Eau Claire.

Leadership, Awards, and Recognition

SkillsUSA Center Board President
Wisconsin Rural School Alliance Board Member
WTEA Award of Excellence
SkillsUSA Technology Literacy Award
Chetek-Weyerhaeuser Exceptional Educator Award

Position Statement

If elected as Vice-President, I would pursue increased marketing of the WTEA as a resource for all TEE teachers. I would recommend collaboration with the DPI TEE listserve and the WTEA webpage, in order to connect more teachers to the resources that WTEA offers. I would also work with the district directors to develop partnerships among neighboring schools and research the diversification of curriculum within a region.



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doug@wtea-wis.org

The New WTEA Business and Industry Advisory Team

What is the new WTEA Advisory Team

The WTEA Business and Industry Advisory Team has been a thought in process for the WTEA for the past year and a half. The Advisory Team will consist of members that represent the businesses, industries, and trades that we as Technology and Engineering teachers support. The Advisory Team will start small and will be led by an Advisory Team Leader. This position will replace the current board vacant position titled Industry Representative. The team members will initially be developed by the executive board along with the Advisory Team Leader. Additional members will be recommended by the Advisory Team and brought to the attention of the full board.

Purpose

The overall purpose of the WTEA Advisory Team will be to help inform the association on current trends and issues important to the businesses and industries we support. Additional benefits of the Advisory Team include:

- Relay current trends happening in business and industry.
- Promote the things Technology and Engineering teachers are doing to business and industry.
- Provide insight on the “Skills Gap” and workforce development in technical areas.
- Update the association on government initiatives/issues related to technical occupation areas.
- Assist in the area of helping the WTEA create connections and partnerships with businesses and organizations in different technical areas.
- Provide legislative support in areas dealing with Technology and Engineering Education if applicable.

Requirements/Expectations

The following are requirements and expectations that need to be held to remain an active member of the WTEA Advisory Team:

- Attend a portion of the Winter Board Meeting (approximately 2-3 hours)
- Brief WTEA during Winter Board Meeting on initiatives in business, industry, and government.

- Meet as a team during Winter Board meeting to create panel discussion for Spring Conference.
- Attend Spring WTEA Annual Conference and present a breakout session (panel discussion format) led by Advisory Team Leader.
- Communicate electronically periodically throughout the year with other Advisory Team Members along with WTEA Executive Team.
- Continually promote the WTEA and help it grow through business, industry, and government partnerships.
- Term - minimum 2 years.
- Allow the use of organization logo to be published by WTEA for promotional purposes (i.e. logos used in Interface).

Initial Membership Structure

- Team Leader: Dr. Bryan Albrecht, President and CEO, Gateway Technical College.
- Team Member: Ann Franz - Director of NEW Manufacturing Alliance.



Check out the WTEA Home Page

www.wtea-wis.org

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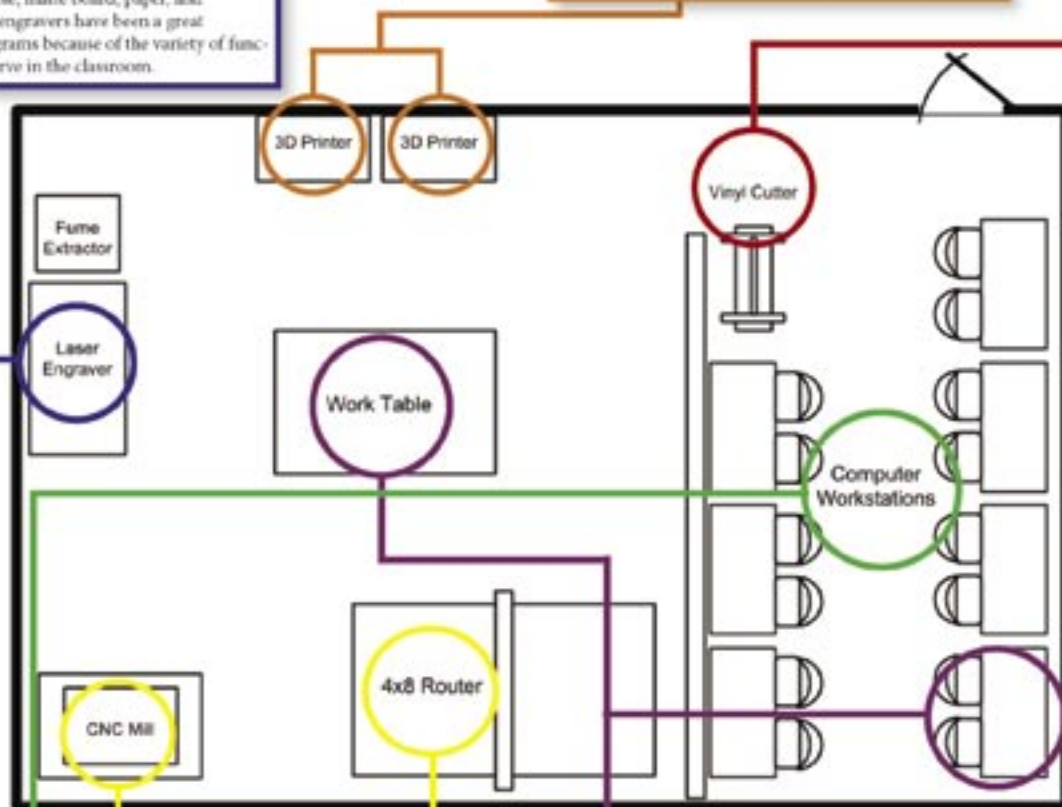
Laser engravers offer a unique design solution in the FabLab. A laser engraver can engrave or cut many types of materials with great precision. Epilog makes high quality laser engravers that work with a wide range of materials including plastic, wood, glass, leather, marble, matte board, paper, and more. Laser engravers have been a great draw to programs because of the variety of functions they serve in the classroom.

Vinyl Cutting

Cutters can be used to layout designs and create labeling. The vinyl cutters produce crisp, eye-catching graphics with speed and precision. Use your cutter to create signs, decals, labels, stencils, and logos.

Additive Manufacturing

With the addition of 3D printing to a FabLab, you can design small scale models for larger projects, reverse engineer parts, or manufacture parts to build ideas from scratch. The flexibility of additive manufacturing is a useful tool that also provides job ready skills.



Software

Use your CAD/CAM software to work with parts and do numerous tests prior to production. A FabLab can venture into new ideas and try to solve problems in new, different ways. This is the first step in working with a variety of materials to make more complex parts suited for specific tasks. It enriches the whole learning experience of creating in the FabLab.

Furniture

Faculty, administration, and manufacturers collaborate to design and implement the highest quality lab space possible. From custom designed lab solutions to classroom layout, they create a multifunctional space for instruction with flexible workspaces. Classroom layouts can also be designed around STEM-related activities or specific program goals.

Subtractive Manufacturing

CNC automation enables you to design a part on your computer and reproduce that design quickly using the router or milling machine. Using a CAD/CAM package like Mastercam, a CAD drawing can be turned into toolpaths that instruct the machine router. The program produces the G-Code that tells the machine where and how deep to cut. This technology has become more advanced and now can be used on tabletop milling machines with rotary fixtures that allow 360 degree routing. Available with a wide range of tooling options, these machines can be used to fabricate a variety of materials with great precision.

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49th Annual Technology Education Conference & Trade Show

Tentative Conference Overview

Wednesday, March 7, 2018

5:30 - 8:00 p.m. Pre-registration

6:45 - 9:00 p.m. Awards Banquet **(New Day)**

Thursday, March 8, 2018

7:30 a.m. – 3:00 p.m. Conference Registration
 7:00 a.m. – 9:00 a.m. Project Showcase Setup
 8:00 a.m. – 4:00 p.m. Trade Show
 9:00 a.m. – 3:30 p.m. Project Showcase
 8:55 a.m. – 9:05 a.m. General Welcome
 9:05 a.m. – 10:00 a.m. 1st General Session
 10:15 a.m. – 3:30 p.m. Concurrent Sessions
 4:30 p.m. – 7:00 p.m. President's Reception
(New Time)

Friday, March 9, 2018

7:30 a.m. – 11:30 a.m. Conference Registration
 6:45 a.m. – 7:45 a.m. Early Riser Breakfast
 7:45 a.m. – 8:30 a.m. WTEA Membership Meeting
(New Day & Time)
 8:45 a.m. – 12:15 p.m. Concurrent Sessions,
 Vendor Demonstrations & Project Showcase
 TBD – Hands-on workshops at Portage HS
 12:30 p.m. – 2:00 p.m. General Session/Luncheon
 2:15 p.m. – 3:30 p.m. WTEA Board Meeting



Thursday Keynote Speaker

Guy Madison,
 Senior Manager
 MICHELS Corporation.



Friday Keynote Speaker

Brain D. Albrecht, Ed.D.,
 President &
 Chief Executive Officer
 Gateway Technical College

Session Topics Include: Laser Engraver Ideas, Fabricating Exoskeletons, Electric Vehicle Evolution, Plumbing and Electrical Techniques, Aerospace Technologies, Offsite Building Construction, K-12 Energy Education Program (KEEP), Robotics, Apprenticeships, Retirement Strategies, Innovation and Design, Automotive Technologies, Welding and Machining, Building High Mileage Vehicles, Project Showcase, SkillsUSA, 3d Printing Techniques, Middle School Roundtable, Manufacturing Project Ideas, New Teacher Boot Camp, and much more!



Chula Vista Resort

4031 River Road, Wisconsin Dells

www.chulavistaresort.com

Room Reservations: 1-877-745-6998 Ask for WTEA Conference Rate



49th Annual Spring Conference & Trade Show: “Educate, Inspire & Innovate”

The WTEA invites you to participate at the 49th Annual Spring Conference, March 7-9, 2018 which will be hosted at Chula Vista Resort in Wisconsin Dells. The conference program is packed with excellent presenters offering a variety of topics to help inspire and motivate each of us. We encourage you to bring your school administrator with you to the conference; administrators are admitted free when accompanying a registered Technology & Engineering educator.

We start things off with a change to our conference lineup on Wednesday, March 7th, 2018. The awards banquet has now been moved to Wednesday evening. We will be recognizing and honoring our colleagues for their outstanding contributions to Technology and Engineering Education as well as program award winners during the banquet at 6:45 p.m. The banquet cost is \$28. This is a great way to show appreciation and support for your peers.

On Thursday, March 8th, the conference will begin with a general welcome to all members given by WTEA President Steve Meyer.

Our first keynote address will be by Mr. Guy Madison. He is a Senior Manager at Michels Corporation, a two billion dollar construction company in Wisconsin. Guy is an advocate of skilled trade careers. He will discuss how skilled trade careers have trended upward as more emphasis is being highlighted on technology and the elimination of jobs that four year college graduates once found plentiful. It's time to get serious about the role parents and skilled trade educators will play in shaping the future of the industry.

Thursday is also the time to visit the trade show. Our vendors are extremely important to our association and our programs. Our trade show features numerous vendor booths with professionals exhibiting up-to-date products and services for our field. This is the best “one stop” to bring an administrator or board member looking for input to update a program.

The Annual President's Reception will follow this great lineup of speakers and vendors later Thursday in the Grand Ballroom.

On Friday we will again host the Early Riser Breakfast. We have moved our General Membership Meeting to this time frame and it will be presided over by incoming President, Phil Bickelhaupt. The day will then continue with diverse sectionals and vendor sponsored workshops. Friday's schedule also includes a day of hands-on automotive technology sessions at Portage High School.

Our mid-day luncheon will be followed by a keynote address from Dr. Bryan Albrecht, President of Gateway Technical College. Dr. Albrecht will discuss “Teaching in a Connected World” which will include how companies, workers, students and, yes, teachers are facing unprecedented change. Additive manufacturing, smart machines, industrial internet and data analytics serves as the foundation for the next industrial revolution - Industry 4.0. Bryan will share a perspective of how Industry 4.0 and the internet is changing what and how we teach.

This year's conference will again feature some of the top Technology and Engineering Educators throughout Wisconsin and the nation sharing their expertise on topics such as: 3D Printing, Coding and Automation, School Based Businesses, Fab Labs, Aquaponics, Safety and Liability, SkillsUSA, Precision Measuring, Evaluating WCA Standards, Exoskeleton Design, Teaching for the Entertainment Industry, Middle School Roundtable, Small Engine Troubleshooting, New Teacher Boot Camp, the popular WTEA Project Showcase, and much more!

Put March 7-9, 2018 on your calendars, get your release days approved, and fill out and send in your registration form today if you have not already done so. The convention fee is \$150 for members and \$180 for non-members. As a final reminder, please contact Chula Vista Resort early to reserve your room - often we are not the only event taking place at this busy resort. We hope to see you there!

For room reservations contact Chula Vista Resort, 2501 River Road, Wisconsin Dells, WI 53965, (877) 745-6998 <http://www.chulavistaresort.com/>.

Use the WTEA eStore to register online with your credit card: <http://www.wtea-wis.org>.

WTEA Membership Application & 2018 Conference Registration Form

Membership year runs from September 1st through August 31st

Last Name _____ First Name _____

Home Phone (_____) _____ Local Tech College District _____ # years teaching _____

School Dist. _____ School Name _____

School Address _____

School City _____ State _____ Zip _____ E-mail: _____

Check the appropriate boxes below and total amount due.

Membership Fees: ☐ 3 year membership - \$75.00 ☐ 1 year membership - \$30.00 \$ _____

Spring Conference Registration:

☐ \$150 members ☐ \$180 non-members \$ _____

WTEA Awards Banquet (Wednesday, March 7, 2018) ☐ \$28 \$ _____

☐ Bill my school district - purchase order is attached ☐ payment enclosed **Total \$** _____

Send completed form with payment or school purchase order to:

WTEA, P.O. Box 1312, Fond du Lac, WI 54936-1312

Phone (920)-904-2747 • Fax (920) 922-0779 • E-mail joe.ciontea@wtea-wis.org

To complete an electronic version of the WTEA membership/registration form go to www.tinyurl.com/WTEA-Conf

WTEA Foundation Scholarship

The WTEA Foundation is offering a renewable \$1000 scholarship for a high school senior who commits to pursue a career as a K-12 Technology & Engineering educator.



Eligibility

- Wisconsin resident
- Enroll in technology education at a Wisconsin University and start the fall semester
- Submit completed application form and 250 word essay prior to April 15

Details of the scholarship and the application form can be found on the WTEA Foundation website at www.wteafoundation.org.

WTEA Conference App

We will have a conference app (powered by Yapp) that you can use on your iOS or Android mobile device. It will have the complete sectional schedule, along with the exhibitor information and much more.

Downloading the app is easy.

1. Visit <http://my.yapp.us/2018WTEA> on your device and follow the instructions on the page.
2. You'll be asked to install Yapp from the app store (if you don't have it already).
3. Open Yapp and tap "Download an existing Yapp" and your app will appear.



Project Showcase



Join us for the 9th Annual *Project Showcase* at the 2018 WTEA annual conference in Wisconsin Dells. We will have an expanded space on Thursday and Friday to display the projects. Tables and power will be available. So . . . we are asking that you bring projects that we can display. Bring projects such as cribbage boards, Vex robots, woodworking items, student poster board displays, electronic circuits, machining projects, welding samples, or even digital pictures of projects. These can be student made projects or samples made by instructors. You are welcome to include supporting curriculum, but it is not required. If you are planning on bringing a project that won't fit on a table, please contact Dave Stroud prior to the event so space can be made available. Watch for more information on the web and DPI listserve as time gets closer. Please email Dave Stroud at dstroud@ashwaubenonk12.org if you have any questions.

Please consider supporting this activity.

This is an easy way to “*pay it forward*” to your profession.



WTEA Foundation Raffle

A raffle will be held at the conference to support the WTEA Foundation.



Blue-Point Tool Cart

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\$910 value



Afinia 3D Printer

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First Technologies, Inc.
\$599 value



Arduino Robot Kit

Donated by
LAB Midwest
\$399 value

Camping Gear Package

Donated by
Gateway Technical College
\$250 value

Additional prizes also awarded

Watch the WTEA website for more details.



Tickets

\$5 each or \$10 for 3 tickets available from WTEA Board members after February 1st.

Tickets will be sold at the conference up until the drawing.

The drawing will take place on Friday, March 9, 2018 at the end of the noon general session.

The winner need not be present to win.

The mission of the WTEA Foundation is to provide scholarships and fund STEM (Science, Technology, Engineering, and Math) education opportunities for teachers, individuals interested in becoming teachers, and students.

The WTEA Foundation is a public charity as defined under section 501(c)(3) of the Internal Revenue Code.

NC3: Learning that Works

What started in 2007 in Kenosha, Wisconsin as a local collaboration between Snap-on, Inc. and Gateway Technical College has transformed into a network of education centers of excellence, certification centers, and industry partners that serve thousands of students across the country. Known as the National Coalition of Certification Centers, NC3's mission is to bridge the technical skills gap by helping train and prepare students for the skills they will need in the technical workplace. In 2017, NC3 will issue approximately 75,000 certifications with strong representation from Wisconsin high schools, community colleges, and technical schools.



Education Driven by Industry

Industry and education have the same goal - student success. By providing students with stackable, portable certifications that build hands-on competency, they are giving the future workforce a competitive edge to improve and enhance the technical workplace for generations to come.

With this goal in mind, NC3 leverages its network of educational institutions and CTE instructors to work alongside industry partners including Snap-on Inc, Trane, Fiat Chrysler Automobiles, FESTO, Greenlee, L.S. Starrett Company, Dremel, Daniels Manufacturing Corporation, IC3 Certiport, and the National FabLab Network to create certifications that can easily be incorporated into existing curriculum in classrooms.

This combination approach marries the expertise of instructors and classroom needs while also providing insight into the technical advances and skills future technicians will need. This in turn, is the formula that will be the solution to the skills gap.



From Development to the Classroom

NC3 provides a turnkey system developed for specific tool use and centered on industry skills and STEM education. By supplementing the school's existing coursework with theory and hands-on practice, students graduate with transferable knowledge and competency valued by the sponsoring company and any employer.



NC3's stackable curriculum design approach avoids any need for curriculum rewriting and lends to a school's quick and low-cost implementation. In order to begin certifying students, instructors are required to attend a "Train-the-Trainer" event that provides standardized, world-class training and guidance to instructors, new or experienced. This professional development opportunity allows CTE instructors to get out of the classroom to network, share ideas, and learn alongside other top instructors around the country which ultimately, creates champions among faculty in developing and advancing instruction on campus.

Student Success Never Came Easier

After an instructor attends NC3's Train-the-Trainer course, schools simply have to purchase the required lab equipment needed for the certifications to begin certifying students. There are no additional costs associated with NC3 certifications. NC3 provides a robust and easy-to-use online certification portal for instructor curriculum access and issuance of student certification exams, and upon successful completion of their exams, students have fast, easy access to their certificates anytime online. Resumes stacked with NC3 certifications are viewed by employers as candidates with extra occupational readiness, highly skilled, and committed.

NC3's network serves as a model for both educational reform and industry validation. By joining a network of over 100 leadership schools and nearly 500 certification centers, it not only allows an educational institution the opportunity to become a regional or national model for CTE education, it also provides unlimited support of shared thought-leadership and benchmarking from other leadership schools and support and insight from industry professionals.

The future workforce is in the classroom right now, invest in creating a positive future for students by leading the way for improved CTE instruction across the country.

Learn more about NC3 and how to become involved at www.nc3.net.



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and download our Fab Lab Planning Guide

National Apprenticeship Week at Ariens

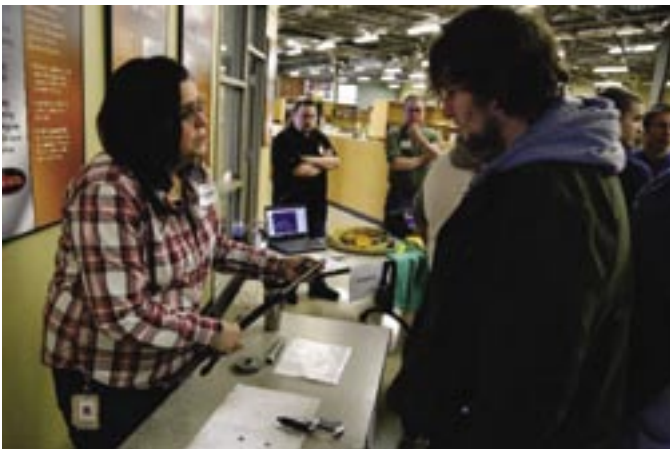
By Dan Barker, Ariens Training and Development Manager

The week of November 13th was National Apprenticeship Week and Ariens/Brillion was involved. First, on November 13th, Ariens was recognized by the Wisconsin DWD/Bureau of Apprenticeship Standards as member of the Wisconsin Apprenticeship Leaders program. This program recognizes sponsoring employers who are significantly involved in Apprenticeship, and who help provide leadership in the state for the program.

Then on November 16th, Ariens and Fox Valley Technical College jointly hosted an Apprenticeship Week activity at Ariens/Brillion. Several local high schools were invited and we had 83 guests. There were students from Appleton East, Brillion, Manitowoc Lutheran, Hilbert, Reedsville and Chilton high schools who took part. Among the other guests were visitors from the Bureau of Apprenticeship, the Wisconsin DWD and Fox Valley Technical College.



Finally, all students toured in the factory where they saw manufacturing operations and got to speak some more with Ariens leaders, apprentices and journeymen about what they do.



After a short program, the students met at various stations with Ariens apprentices and journeymen from both plants. The students reviewed various career opportunities in manufacturing at these stations. In addition, the Ariens Youth Apprentices presented and they explained how Youth Apprenticeship worked at Ariens and their experiences in the program.



Ariens and FVTC received a lot of positive feedback from our local high schools and the Wisconsin Apprenticeship Bureau regarding this event.

Notice:

If you are not receiving
the Technology Educators listserve postings,
you can sign up by contacting
Brent Kindred at: brent.kindred@dpi.wi.gov



A Training That Pays

By Matt Schultz, LakeView Technology Academy

Teaching technology in today's classroom is a constant revolving door of new and evolving equipment, software, hardware, maintenance, upkeep and the tedious process of learning how to use, operate and maintain new equipment. Often when purchasing a new machine or piece of equipment we turn to the tech ed list serve to ask our fellow educators their experience or expertise before making a purchase. I rely on my colleagues and, to be honest, if I can find good support videos on Youtube. I know that sounds awful, but I want to have the ability to teach myself if my district can't pony up for official training. When my school purchased the Tormach CNC mill and lathe, one of the major attractions was knowing that Tormach offered two separate trainings to teach me how to use my machine, and the software that supports it.



Recently I and two other instructors attended Tormach's Milling Machining four day training session in Waunakee. The training covered setting up tooling and work offsets. It also included Sprut Cam, the computer software to create toolpaths for the mill to follow. The class was led by two fantastic instructors, Jacob and Scott. While not teaching classes at Tormach, these two work as technical advisors answering questions Tormach owners may have. Jake's main role was teaching the Sprut Cam software, and he did an amazing job. Jake is actually the lead tech support in the United States for this Russian design software. Scott's main role was going over machine, tool and workpiece set up. The class of ten individuals was broken into two groups of five. While one group learned the CAM software the other group was out by the machines making the parts. During the four day training our project was to make a Swing Indicator Holder. We programmed the CAM for one of the four parts for the TTS holder. The other three parts were already programed

and we focused on setting up the workpiece, and tooling offsets. The class was very well run in regards to the competencies we covered and learned. The class is designed to be an "Introductory Level" class. We covered both introduction level and some advanced concepts.



I think what impressed me most about the class was the energy in the Tormach Facility. Tormach is 100% employee owned and operated. The fact that employees own the company was evident at the training. Each member of the team was well educated in their respective areas. At lunch we had company experts come in and speak. Whether the discussion was on tooling, speeds and feeds, maintenance or setting up and building your Tormach, each Tormach employee was passionate about their role in the company. I could feel the level of dedication and belief in their products.

While shopping around for new technologies for our labs, whether it is a CNC mill or a welder, I think it is important to select a product that is: A. affordable, B. a quality product, C. has great tech support, and D. has excellent training. My experience with the Tormach CNC covered all of those bases. I strongly encourage folks shopping for a new CNC to contact Tormach. I can promise your experience will be as pleasant as mine has been.



Parkview Middle School STEM Club - Providing Opportunities for Student Exploration

By Corey Hansen and Phil Layden

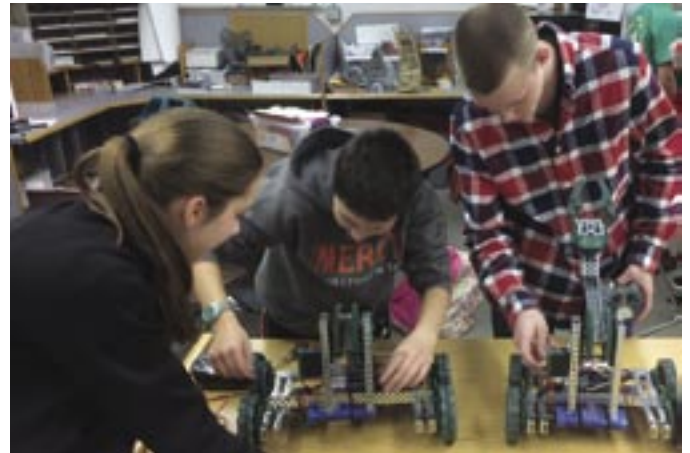
Middle school is a time when kids are gaining independence, exploring interests, and beginning to think about career paths. Parkview Middle School's Technology and Engineering curriculum supports our state standards for students in grades six through eight, but we wanted students to have more opportunities to explore the things in our department that they were interested in or excited about. Our solution was to create the Parkview STEM Club in 2016-2017, and it has been a big success.

Any sixth through eighth grade students are able to join our club, which holds weekly meetings from October until May. With over 30 members the first year, and over 20 for 2017-2018, the club has been a real success. We have a variety of activities that kids can always choose to work on each week, like using Autodesk Inventor to design and model parts for production using our 3D printers or CNC routing equipment, or creating circuits and programming Arduino microcontrollers. This is an extension of our coursework, but some kids really just want to be able to explore their own ideas beyond classroom assignments, and that is what STEM Club is all about.



STEM Club also gives kids many other unique opportunities for involvement, including SkillsUSA, the annual Brown County Home Builders' Association School Competition, SeaPerch underwater robotics competition, and our VEX VRC competitive robotics team. Each of these extra activities runs during a different part the year, so kids can participate in the ones that they want to. There are also fundraising activities they can volunteer for - things like SkillsUSA participation and supplies for Club

projects. This year we hope to add at least one field trip to a local manufacturer in the spring so kids can see professional applications of the things they do at STEM Club.



With the growing need for skilled professionals and a workforce that is comfortable taking projects from design to production stages, we feel our STEM Club helps the students with the interest and ability to further develop their talents in STEM-related areas. Our biggest hope is that kids can discover something they are passionate about and might want to pursue at the high school or career level. Who knows - someday one of our former students may come back and talk to us about their career path and how it was influenced by the opportunities our club helped make possible for them. We can only hope to be that fortunate.



Why I Became a Technology and Engineering Teacher

By Alan J. Mamerow, Sussex Hamilton High School

As the WTEA continues to promote Technology and Engineering (TE) Education, and works to grow our profession by encouraging students to consider education as a career path, I felt it would be fitting to discuss my reasons for following a Technology and Engineering Education career path. There were numerous factors that influenced my decision. Many of my teachers made TE classes enjoyable and encouraged my career choice. I also had excellent high school and college experiences in my classes, and with extracurricular activities. However, it wasn't until my college and student teaching experience that I truly realized why I wanted to be a TE teacher.

Over four years ago, in the Fall 2013 *Interface* edition, I had an article published regarding why I chose to pursue a TE career. I had written the article during my senior year of high school, and it was published for my first semester of college. I discussed how both of my parents were teachers and I had always seen the importance of a quality education. I noted how much time I had spent working with my father, who was a retired TE teacher, and how I had come to love my time working with my hands tinkering or building things. I talked about how I hoped to pursue a career as a TE teacher because I wanted to be like my past teachers, and pass on my knowledge to future students. And as I look back on that article and re-read it as I write this one, I still look forward every day to teaching my students new processes and skills. However, I am glad that I became a TE teacher for more than just that reason, and as I have progressed through college, student teaching, and now into a career, I have ended up with a very lengthy list of why I am glad I chose to become a TE teacher.

My introduction to the world of TE came from my dad, who taught middle school TE. Once I was tall enough to see over the outfeed table of the table saw, I would spend summer days in his shop as we would cut and organize blanks for desk organizers, memo pads, key racks, and various other projects. When I got to middle school, I had a very enthusiastic teacher in Shannon Flaherty for both 7th and 8th grade TE. Mr. Flaherty was always encouraging me, and was nice enough to let me stay after school for a half hour nearly every day my 8th grade year to work on extra projects that I wanted to try out. By the time I finished 8th grade, I had decided that I was going to be a TE teacher. As I continued through high school and college, my instructors continued to encourage my passion for TE.

Attending the spring WTEA conference every year after high school was a confirmation that I was on the correct career path, as I was able to meet other teachers who were as enthusiastic as I was. One of my best experiences year after year at the conference was talking to individuals whom I had met in the past, as they asked how school was going and actually wanted to have a personal conversation. The TE community does an excellent job welcoming future teachers to the profession, and that encouraged me to continue on the TE career path.

As I entered high school, I was very confident that I wanted to be a TE teacher. I took every engineering class that was available to me, as well as numerous woodworking classes. I had teachers that always encouraged me to take on more difficult tasks or design my own projects, which I greatly enjoyed. My senior year cabinetmaking teacher, Joe Premo, was a recent graduate from UW-Stout, and was able to help me plan out my freshman year of college. I also returned to my middle school TE classroom during my senior year as a Teacher's Assistant. Knowing that I was going into a TE career, Mr. Flaherty was able to give me advice and get me very involved in his classes. As a senior in high school, I taught 8th graders a lesson in heat treating metal. While the first half of the lesson was very nerve-racking, I ended up having a great deal of fun with it.

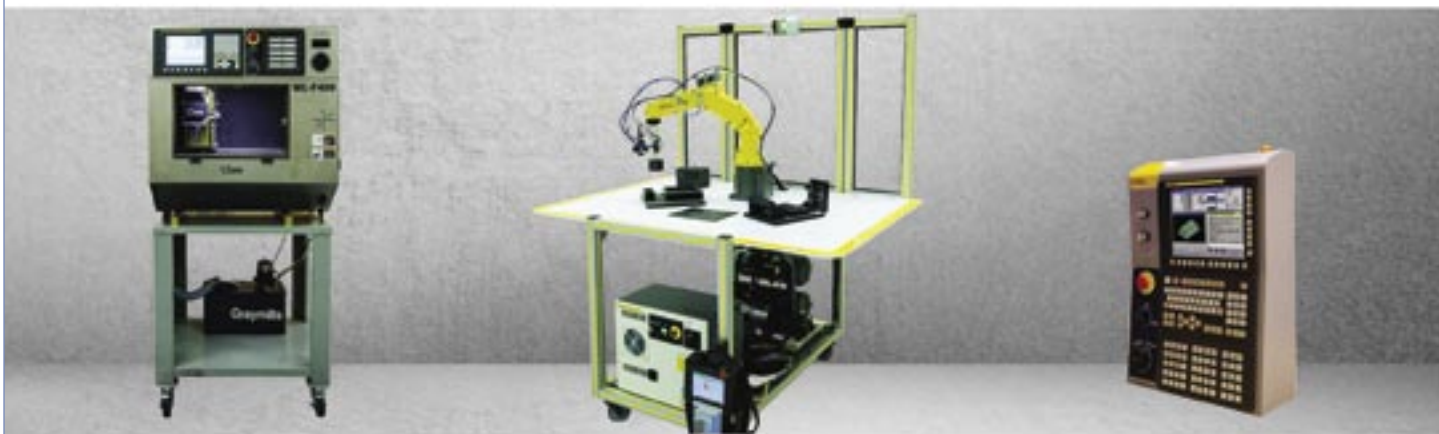
When I was in high school, I didn't have the opportunity to participate in SkillsUSA or supermileage. However, as a first-year student at Stout I was able to be a judge at the SkillsUSA regional competition and assist at the Stout Supermileage event. Through my involvement in these two events, I knew that I wanted to be more involved in the future, and I believe that having a chance to take on a leadership role gave me a whole new idea of what my TE career had the potential to be. My second year at Stout, I was the coordinator for the Supermileage event. After the Stout race, I travelled to Road America to learn more about the WEEVA events. After two years of only having a dozen cars at Stout, I was amazed to see 75+ Supermileage and Electrathon cars in one location, and spent a good portion of the day walking through the pits amazed at what the teams were accomplishing.

When I student-taught the following spring at Watertown, I was fortunate enough to have the opportunity to become involved with the SkillsUSA and Supermileage teams there. I travelled to all four WEEVA events, as well

as SkillsUSA state and nationals. When I saw how enthusiastic the students were to be competing and showcasing their skills, I knew that I wanted to be an adviser after I graduated. Because of my involvement assisting with SkillsUSA and WEEVA events at Stout, and the opportunities that Jesse Domer was able to give me during my student teaching experience, I realized that my career as an educator didn't have to be limited to the classroom. Through SkillsUSA and WEEVA events, I could give students the opportunities to learn new skills and showcase their talents more than I had ever imagined when I was in high school.

Through my experiences in high school, college, student teaching, and my first year as a teacher, I am very happy with my career decision and confident that I made the right choice. I firmly believe that we are in an excellent profession with the opportunity to make a difference in the lives of all students. I am reminded every day of how amazing the group of people I work with is, as I see the excellent communication and sharing of ideas across the state. Keep up the excellent work, and keep encouraging your students to become involved and invested in what we teach, and to always remember that Technology and Engineering Education is an amazing career option.

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Tech Nights Bring Excitement and Awareness To Technology & Engineering Education

By Dave Stroud, Ashwaubenon High School

For the 2017-18 school year, the Ashwaubenon School District Technology & Engineering department decided to start a Tech Nights program for school district students, parents, employees, and community members. One night a month we host an event in our facilities and give attendees the chance to learn about the necessary skills and opportunities we teach to our students. Students from 4K-12, their parents, district employees and community members are all invited to learn about such topics as woodworking, welding, 3D printing, CNC machining, basic car care, and problem solving by completing a hands-on project.



The main reason we started the Tech Nights program was to satisfy our Personal Professional Goal (PPG) “To educate students, parents, and the community on the opportunities that exist in the technical trades by creating and promoting a program that prepares students for college and careers by teaching an authentic, project-based curriculum with a focus on employability skills.” Tech Night events help achieve this goal by:

- Bringing awareness of the types of skills students can learn in Technology & Engineering courses.
- Bringing awareness to students/parents of the post-secondary and career opportunities that the program can lead to.
- Giving students/parents/community members an opportunity to see and work in the district’s facilities.
- Giving back to the Ashwaubenon community that has always been a strong supporter of the schools.



Our post-secondary partners such as Northeast Wisconsin Technical College (NWTC) and Universal Technical Institute (UTI) have had a presence at the Tech Night events to help educate students and parents of the opportunities that exist after high school. NWTC sent one of their welding instructors along with their virtual welder to our Welding 101 event to give students some pointers and practice welding before stepping in to the welding booth to create a pencil holder. At our 3D Printing Basics event, an instructor from NWTC’s Prototype and Design program brought one of his 3D printers with examples of student work. Both instructors talked to students and parents about the opportunities and programs that exist at NWTC and beyond.

The Tech Night program has been a huge success thus far, with average attendance of around 100 students/parents/staff/community members. To handle the large numbers of people, we have our high school and middle school Technology & Engineering students help facilitate the activities. The feedback from attendees has been extremely positive. Our hope is that the Tech Night program will help build and sustain our program for years to come.

If you have any questions, please contact Dave Stroud by E-mail: dstroud@ashwaubenonk12.org.

Challenges, Connections and Student Learning

By Steven Yahr, Fab Lab Three Lakes Director

This summer, I watched a dragonfly hatch. The emerging dragonfly struggled mightily to free itself from what it was to become something new. Although painful to watch, the process was vital because, though it was a struggle, the dragonfly developed the wing strength needed to fly and survive. If I had cut the dragonfly free, it would have been doomed.

Just like with that dragonfly, the process of struggling and learning is critical to our students.

When our Northwoods employers describe the skills they desire in employees, they frequently discuss creativity, critical thinking, collaboration and communication, which are collectively known as 21st Century skills. Employers know the world of technology is changing, and they know those skills help employees solve problems, build new products and take risks. Similarly, a new report by the British innovation foundation Nesta and the University of Oxford lists similar skills that employees will need by 2030:

- *Judgment and decision-making. Considering the relative costs and benefits of potential actions to choose the most appropriate one.*
- *Fluency of ideas. The ability to come up with many ideas about a topic (the number of ideas is important, not their quality, correctness or creativity).*
- *Active learning. Learning strategies — selecting and using appropriate training/ instructional methods and procedures.*
- *Learning strategies. Understanding the implications of new information for current and future problem solving and decision-making.*
- *Originality. Coming up with unusual or clever ideas about a given topic or situation or developing creative ways to solve a problem.*

These skills echo the Fab Lab progression of empowerment, education, problem solving, job creation, and invention.

Following on this, at the 2017 CTE Summit at UW-Stout, Dr. Bryan Albrecht described how the role of workers in relation to work changes from an Industry 1.0 to an Industry 4.0 model. Industry 4.0 is the name of the current trend of automation and data exchange in manufacturing technologies, or smart factories. It includes cyber-physical systems, the Internet of Things, cloud computing and cognitive computing. The final report from the Industry

4.0 Working Group describes the challenges of the expected work environment this way:

It is very likely that the nature of work in Industry 4.0 will place significantly higher demands on all members of the workforce in terms of managing complexity, abstraction and problem-solving. Employees will also be expected to be able to act much more on their own initiative and to possess excellent communication skills and the ability to organize their own work. In short, greater demands will be placed on employees' subjective skills and potential. This will provide opportunities in terms of qualitative enrichment of their work, a more interesting working environment, greater autonomy and more opportunities for self-development.

The changing nature of work is challenging us to take another look at which skills we are helping our students develop and how we develop those skills.

As the nature of work changes, our employers are also very concerned about a shrinking work force. According to North Central Wisconsin Workforce Development Board & Department of Workforce Development, the United States economy will be about 18 million skilled workers short of demand by 2020. In our corner of northern Wisconsin, employers project a shortage of 26,000 workers by 2020.

Compounding that, the U.S. birth rate hit a record low of 1.86 babies/woman, well below the 2.1 needed for a stable population. Additionally, Wisconsin loses the seventh largest portion of skilled talent to outbound population migration, and the state's unemployment rate is currently very low, with north central Wisconsin at 4.4 percent. Combined, these factors make it challenging for employers to find the people needed to meet customer and business goals — or even to be sustainable.

Research published in the journal *Child Development* reports young people, typically aged 18 to 25, in industrialized countries are taking a slow road to the pleasures and responsibilities of adult activities. Young people describe their world as being highly regulated by adults with zero tolerance for mistakes. Also, social media and electronic devices have allowed youth to engage with each other and their world in ways they deem safe, free from risks, — including the risk of making a mistake. Young people are much less likely to engage in dating, having sex, drink-

ing, driving, working for pay and other activities as compared to people their age 30 to 40 years ago. These trends are seen across the country in all socio-economic groups.

Like dragonflies, our students need to struggle to become what they are called to be. By excessively structuring their world, or squelching their desire to hatch by instilling a fear of making mistakes, we are depriving them of the struggle they desire and need. We also stop them from developing valuable skills.

The combination of changing work and work skills, low birth rate, shrinking workforce, and young people who are not claiming their independence is, perhaps, a perfect storm for sustainable communities and economic development. It is also the context in which K-12 schools operate.

At our Fab Lab, students create things using an engineering design process, which allows them to engage with technology and solve authentic problems. In the process of innovating, creating and solving, students learn about struggle, failure, and that failure is an opportunity for learning.

The Fall edition of WTEA *Interface* featured several articles on the importance of connections in helping to ready our students for life after K-12 and for work. The issue included a wonderful article tying cultural connections and student learning, and an article describing the discussion and work coming from the collective efforts of many at the UW-Stout CTE Summit this summer. Truly, the collective wisdom of many helps all of us — K-12 included — meet student skills growth challenges.

At Three Lakes School District, and specifically at Fab Lab Three Lakes, we have embraced the Fab Lab vision of “globally connected people solving local problems,” to meet these challenges thru strategic relationships. Our curriculum encourages students to stretch themselves, to take risks and to struggle by solving open-ended problems. We also work on learning from mistakes.

We work with a business advisory council that helps us understand today’s work skill needs. We have partnered with Northwoods Innovation, a business consortium focused on workforce development. Although this partner-

ship is young, we are looking at mentoring, youth apprenticeship and internship opportunities for our students. We have a partnership with UW-Stout through which we are researching Fab Lab best practices, and, with Stout, we are part of a community of educators working on curriculum development. We are part of the US Fab Lab Network. Additionally, we have partnered with the Demmer Memorial Library and the Three Lakes Model Railroad Club to host a MakerCamp for students ages 10 through 16. Truly, partnerships have helped us achieve success. We also offer a two-week Fab Lab 101 course for teachers. We will be offering one in June 2018 and one in July 2018 — check our district website for details.

Although we do not have all the answers, and indeed, we do not even know all the questions, we are ready to share what we have learned with other districts. For us, the message has been clear and provocative: To sustain our communities, our students must learn to struggle, engage in authentic problem solving, build skills in innovation, take risks and make mistakes. To help our students develop these skills, we need to learn from each other. This is an exciting time to be in education, and we are hatching a new thing. Join us in the fun.

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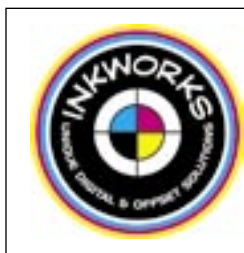
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ARTICLE

First Technologies: Ready to Serve - Ready to Assist

By Bob Werner, President of First Technologies

First Technologies has been supporting your K-12 technology needs for almost 24 years, I can't believe it! I never imagined having a lifelong career assisting educators with teaching job skills to their students. I am happy to report that First Technologies is stronger than ever, as a business and as a resource for today's technology.

FabLab Planning

First Technologies is the leading supplier of FabLabs in the states of Minnesota and Wisconsin. We have worked with administrators and teachers to plan and implement many high school and middle school FabLabs throughout the region. We have witnessed much success as teachers and students create projects in these labs.

Manufacturing and STEM

Today, many of your districts are being asked to have a program that focuses on Advanced Manufacturing, STEM or STEAM. Today's classroom needs tools the students can use to give them "real world, job ready" skills for success in their careers. Equipment and curriculum can encourage this through integration and application of math and science into your technology programs. First Technologies has several options to assist you and your students in accomplishing these goals.

Service First

"Putting Education First..." is the tagline you will see when handed a business card from one of us at First Technologies. I have always felt if you take care of your customers by providing the best equipment, the best software, and the best curriculum, then support your customer when they ask, success will follow. I can report today that it seems to be working.

Adding New Staff

I am delighted and proud to announce this past summer we added new staff so that we may keep up with the installations and service created by the many districts that select us as their partner.

Please welcome Mike Hosmer as our new sales consultant in Minnesota. Mike joins us to help serve the K-12 districts in Minnesota as they look to implement new FabLabs and STEM programs. Mike brings with him almost 10 years of sales and sales managerial experience.



Please welcome Jason Dorn as our new Service Manager. Jason comes with 20+ years experience in the service industry. He has a strong background in mechanics and electrical service. He will need some time to learn all of our products but he is a fast learner. If you need his help please call our 800 number and ask for Jason. He is ready to get you answers and get you running!

Thank You

I would like to thank all of you that have been kind enough to trust First Technologies when it came time to purchase "tools" for your classroom, shop, or lab. We have made so many friends over the years and many remain friends outside of school. I am hoping to create new friends and partnerships with those of you that have been asked to integrate technology into your programs.

Our staff is poised and ready to answer your call. We look forward to hearing from you.



WEEVA is Now Challenge USA

By Mike Paquette, Challenge USA President

During the past year WEEVA has been undergoing many changes. The most significant is that The Wisconsin Energy Efficient Vehicle Association has been expanding to Illinois. This last year we had the first race at the Autobahn in Joliet, Illinois. Thirty cars attended the event, which for its first year is huge and we are expecting to be bigger this year. With the addition of this event, WEEVA is looking to continue to expand in Illinois and throughout the Midwest. Due to this expansion we are changing our name to Challenge USA. Challenge USA is the same organization with the same mission for its participants and challenge events, but expanding beyond Wisconsin.

This year Challenge USA has five challenge events ready for teams to attend. Last year we had 40+ teams from Illinois and Wisconsin participate in the challenge events. This year we are looking for more teams to join the fun at our five events across two states. Personally, as the Challenge USA president, there are two things every year that I look forward to. One is the WTEA conference, where I get to talk and swap ideas with fellow teachers. The second is the Challenge USA competitions through-

out the state where again I get to swap ideas and see how all the teachers around the state inspire students to do fantastic things. I have had the opportunity to see everything from hydrogen powered cars to lithium ion electric monsters eating up the miles on the track. I look forward to sharing these experiences with you this next year.

The Challenge USA team looks forward to seeing you soon at WTEA and at the spring events listed below!

UW-Stout - April 20-21, 2018

UW-Platteville - April 27-28, 2018

Autobahn (IL) - April 29-30, 2018

Fox Valley Technical College - May 4-5, 2018

Road America - May 14-15, 2018



Be a Part of Building Bridges Within the STEM Community and Beyond!

ITEEA's 80th Anniversary Annual Conference in Atlanta, GA - April 11-14, 2018

ITEEA is building on the success of the Dallas conference as we continue the planning for our 80th Anniversary Conference in Atlanta in 2018, where the theme is "Building Bridges Within the STEM Community and Beyond." Making connections is a critical component of success for educators, and the 2018 ITEEA Conference will bring you up to speed on connecting with your colleagues, the broader STEM Community, and with STEM Decision Makers.

With over 100 learning sessions, preconference workshops, STEM Showcase, the latest products and services, dedicated Integrative Administrator and STEAM strands, competitions, and MORE, the 2018 Atlanta conference offers an unparalleled integrative STEM professional development opportunity.

Preregister prior to the March 20, 2018 deadline to save TIME and MONEY as well as eligibility for a \$100 Visa gift card.

Preregistration is now open!

Find the latest conference information at

www.iteea.org/

[ITEEA Conference 2018.aspx](http://www.iteea.org/Conference2018.aspx)



SkillsUSA Fall Leadership Conference a Huge Success

In October, SkillsUSA Wisconsin held a very successful Fall Leadership Conference at the Chula Vista Resort in Wisconsin Dells. The two-day event welcomed almost 200 chapter leaders representing 37 schools learning how to run a high quality chapter. This is one of the largest Fall Leadership events Wisconsin has ever had in recent memory. The intense conference involved seven groups of students, advisors and alumni acting as separate chapters that held mock officer elections, chapter meetings, fundraising, team building activities, and community service activities while building their knowledge of the SkillsUSA Framework, Program of Work and Chapter of Excellence Program (CEP). Advisors also received Career Essentials and CEP training from SkillsUSA National office representative, Mr. Chip Harris.

Our SkillsUSA Wisconsin alumni are already working on next year's program that will take place at Chula Vista Resort in Wisconsin Dells, October 14 & 15th, 2018. Next year promises to be bigger and better than this year. Make plans now to attend.



Upcoming SkillsUSA Dates

Regional Events

- 10th Annual SWTC Regional – January 25-26, 2018
- 6th Annual NTC Regional – February 2, 2018
- 7th Annual GTC Regional – February 9, 2018
- 5th Annual FVTC Regional – February 16, 2018
- 34th Annual UW-Stout Regional – February 22-23, 2018



Team Works Competition

February 15-16, 2018 (state level competition hosted by Milwaukee NARI)

45th SkillsUSA State Conference

April 24-25, 2018 – Alliant Energy Center Madison

54th Annual SkillsUSA Championships

June 25-29, 2018 – Louisville, Kentucky

Becoming a SkillsUSA Member

By Kelsey Nowak, SkillsUSA Wisconsin State Secretary

When I entered my high school for the first time, I was bombarded by messages like, "Join this, it will look good on your college application!" or "In order to get into a good university, you have to take as many AP classes as you can" or even "Don't waste your time on electives." Starting as early as elementary school, it is embedded into students that they must attend a four year university, and everything they do is in preparation for the day they finally get into the University of their Dreams. But maybe that four year university education is not their true desire. Maybe they just don't know what else to do. If you don't attend a university and earn a degree, you can't get a good job, right? Society tells students that in order to be successful and feel fulfilled, they must follow a certain path. Until I joined SkillsUSA, I believed them. I was SO wrong.

My journey to becoming a SkillsUSA member was fairly unique. SkillsUSA is a partnership of students, teachers, and industry working together to insure America has a skilled workforce. Oftentimes, students joining SkillsUSA are enrolled in one or more CTE courses before becoming members. The organization gives them an opportunity to take the skills they have learned in the classroom and compete at the district, regional, state, and sometimes even national level. It connects them to industry professionals that can provide guidance in their career pathway and gives them the opportunity to network with potential future employers. Before joining SkillsUSA, I had never stepped foot in a Tech Ed classroom.

I am here today unable to imagine my life if my brother had not convinced me to attend my first meeting. This gives me a unique perspective; I think SkillsUSA

can serve as a method to increase enrollment in Technical Education courses. So far in my time as a member, I have placed first at state twice in Broadcast News Production and had the opportunity to travel to the national competition in Louisville, where my team and I took sixth place. Last spring I was elected to the office of SkillsUSA Wisconsin State Secretary, which has brought me all over the state to visit a variety of schools and businesses to promote the organization. It has forced me to step out of my comfort zone and has equipped me with the tools I need to excel in my future career. I am beyond thankful for all the amazing opportunities I have been provided through SkillsUSA, and hope others can also be impacted by SkillsUSA, whether they are already training in a certain career pathway or new to the world of CTE.

Therefore, I urge you, as CTE educators, to take advantage of the benefits of SkillsUSA. It will have a positive impact on your school. You and SkillsUSA will help young people like me realize our career dreams. You will also draw more students into your Technical Education classes and gain recognition through competitive events. If you already have a chapter, I would like to extend my most sincere thank you for all you do to help your students, and SkillsUSA Wisconsin, succeed. If you do not have a chapter, I strongly urge you to start one. For more information contact our State Director and visit our website:

SkillsUSA Wisconsin State Director, Brent Kindred

brent.kindred@dpi.wi.gov

Or visit our website:

<http://www.skillsusa-wi.org/wordpress/>



Plan now to attend

The 49th WTEA Annual Conference
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Note: Awards Banquet has moved to Wednesday night, March 7, 2018

March 7 - 9, 2018

•

Chula Vista Resort

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LIFE AFTER THE CLASSROOM

Do You Remember Jay Ruetten?

Soooo, life after teaching eh? It was a pleasant dream 10 or 20 years ago but now I am approaching three years of retirement bliss after 39 years of teaching Tech Ed in Milwaukee, LaCrosse, Hanau, Germany and Camp Zama, Japan. My wife, Dianne, and I re-settled in LaCrosse because of family, good friends, health care and warm summers. It was a good ride. I must say, WTEA and sponsors/vendors were a great support that I leaned on and I strongly recommend that new teachers get involved.



Retirement began in February of 2015 when we moved back here to LaCrosse from Japan. We have continued



to travel, play, and recently substitute teach at West Salem High School. Whaaat??? Yup, it is fun to be back in the classroom without all the meetings. Teaching keeps you young.

I have always liked “clever and different.” My parents enjoyed traveling, especially my mother who in 1972 insisted that we see Europe. We did, and I was never the same. You can drive as fast as you want on the Autobahn. Now that is different! This past September we attended the huge 2017 Frankfurt Auto show – a bucket list item since '93 and was amazed at all the hybrid and electric cars. Transportation technology is a wow. Also, we visited with friends we met in Japan that are now living in Vicenza, Italy, and teaching for the Department of Defense on an Army base there.

Almost every retiree will tell you that they are busier now than when they were employed. Pretty much true! Besides the work around the house and garden, I joined the Monday morning senior golf league and get to play from the gold tees! If it rains, I go to Tai Chi class at the

senior center. During the year our Sheephead card players meet once a month to battle it out and compare stories. Always a good laugh. Tuesday morning golf is at Cedar Valley and Thursday mornings (not in summer) is breakfast with the retired Tech Ed crew from LaCrosse.

Our son and his wife moved to Phoenix, Arizona, a few years back and it is a great getaway break from the cold to visit them. Surprised at how many snowbirds flock south. Would like to be one of them someday.

Ever since high school I have had to wrench on cars and motorcycles for transportation because, well like most, I needed to save the money. No, I could not make a living at it, but it was sort of enjoyable. It has become a hobby that has continued into retirement.

One of my students at Central High School in LaCrosse was very passionate about MG sport cars



and one day brought his '72 MGB to show the class. He did much of the work and he thought that I should have one too. A few months later he found one and helped me get it going. That was in 1999-2000. Today, he has a successful British car repair business in Portland, Oregon and I still have the '71 MGB in my garage. Truthfully, I really enjoy working on the MGB and is loads of fun to drive around the LaCrosse bluffs.

This summer we added to the garage my wife's car,



a 1991 Nissan Figaro that we had shipped from Japan. Great little car which gets lots of looks, being that it is

right hand drive. “Hey, You're driving on the wrong side” heard a few times.

Well, thanks for listening, time to heat up the garage!





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