NIERFAE

Volume 63 . No. 2 . Winter 2023-24

Journal of the WTEA

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the Future

SPECIAL FEATURE:

·WTEA Spring Conference

Other Highlights:

- Retired Instructor
 Starts Up Businesses
- 'How to Increase Female Enrollment





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"Focusing on the Future!"

PRESIDENT'S MESSAGE

Is This The End?

By Doug Dimmer, WTEA President

"The countless hours of work

planning and getting projects,

materials, and equipment

ready on a daily, and some-

times hourly, basis is some-

what heroic in itself."



Wow, what a ride it has been! Now, knowing that this will be the last article I write to you as your president, I had to take a look back and reflect on all the great things that have occurred during my term and what great things you as teachers and mentors have provided, not only to your students, but also to the state and global markets.

First and foremost is the commitment you all make daily as a technical education teachers. The countless hours of work planning and getting projects, materials,

and equipment ready on a daily, and sometimes hourly, basis is somewhat heroic in itself. Understanding that many of the teachers, even in your building, have no clue how seamlessly you make it happen. On top of doing all that, having time to organize clubs, manage competitions, coach extracurriculars, maintain over-the-

top expensive equipment, and even drive buses; and at the same time, for most of us maintaining a family and/ or managing personal schedules and events, is again most incredible. At the end of the day, we sometimes ask ourselves why we do it as we watch friends in industry continue to grow beyond belief. I say it's like working in a candy shop; not only do I get a chance to play with so many cool and new things daily, but I also get a chance to make a difference in the world by inspiring the next generation of our labor force. Even when you have those incredibly hard days, there are so many other days that occur which makes it easy to leave the bad ones behind.

Second, is the work we have done collectively as a group of educators through what I still think is one of the greatest technical education associations in the land, the WTEA. The last couple of years, we have come out of a very difficult situation with COVID-19 and managed to regain not only our membership commitment but also challenge ourselves to become a greater force by opening pathways with industry leaders and organizations, being more diverse and available to members by integrating newer systems to communicate and register, and by stepping out more into the public domain with our social media presence. As an organization, we as a board of directors are here to support you as educators, being members of the association or not, by whatever

means possible. We are pushing for new standards from the state, allocating resources from industry, and finding better ways to bring teachers into our area of education. I want to thank all of our board members, past and present, for creating these possibilities to become realities through their hard work and dedication to the trade.

Lastly, I want to thank my family, friends, and associates who have supported me through this part of my journey in life. I have now spent 23 of 35 professional years as a Tech Ed Instructor and still haven't had a sin-

gle dull day. I have met so many

amazing people and have seen so many cool things while spending time with them that it is difficult not to always wonder what is going to happen the next day and beyond. It is hard to think about the end of the run when you are having such a great time and enjoying

the people you meet, but with all good things, there has to be change. Change brings new people into the fold and fresh ideas which can generate greater accomplishments. It has been a great run, but it is time for a change, so as a group, we can stay diverse and lead our students and the state towards a greater industrial future and market.

My message to you folks is to stay focused and be leaders. I thank you all for giving me this opportunity these past couple of years, and for giving your time to what I see as the best profession out there, technical education. I hope to see all of you at our 55th annual conference, March 6th-8th, and wish the best for all of you and your families, and to keep opening the world up to your students. Prosts!

NOTICE TO ALL MEMBERS! OUR ADDRESS HAS CHANGED

The new mailing address for the WTEA:

WTEA P.O. Box 373 Hazelhurst, WI 54531-0373



WTEA BOARD NEWS & 2024 CALENDAR

2023 Fall Board of Directors Meeting Summary

By Mac Chopin - WTEA Secretary/Treasurer

Meeting held virtually from FVTC - Oct. 7, 2023:

- Call to Order Doug Dimmer
- Approval of agenda
- Approval of past meeting minutes
- **Board Changes** Doug Dimmer
 - □ New DPI Consultant / Skills USA Director Jake Mihm
- **President's Report** Doug Dimmer
 - □ Business, Industry & Trades Advisory Committee
 - Mike Cattelino appointed chairperson
 - Anna Vitale's student designed their logo
 - Set expectations for new teacher boot camp at January meeting
 - Thank yous:
 - Summer fishing: Barnhard G-Troupe
 - Articles in Interface
 - NEWMA: WTEA members
 - DPI interview: Vitale
- Vice President's Report Anna Vitale
 - Tentative plans for promo videos for the conference request access/links to what they are already doing in the classroom, FB links to school websites, etc.
 - □ Looking for audio or written bites about how great the state conference is (for the promo videos)
 - □ Looking at creating a release form for Facebook
- **President-Elect Report** Mike Paquette
 - □ V.P. election nominations due Dec. 9th
- **Program Coordinator Report** Steve Johnston
 - □ 2024 Conference updates
- Exhibit Coordinator Report Tom Barnhart
 - □ Update on booth sales
 - □ Call for new exhibitors
 - □ Plan to incentivize new vendor referrals
- SAP & Awards Coordinator Report Matt Schultz
 - ☐ Two students Student Ambassadors currently
 - ☐ Funding & improvement of award videos
- Project Showcase Steve Meyer
 - ☐ Madison College will sponsor Project Showcase
- **Executive Director & Operations Coordinator Report -**Joe Ciontea & Jesse Domer
 - ☐ Financial & membership reports
 - □ Wild Apricot site update
 - ☐ Transportation Technology Facility Planning Guide with WATDA partners
 - ☐ Business Management Committee (Joe/Jesse/Mason)
 - Together all three will manage daily operations
 - New Communications Director: Mason Pautsch
- **Foundation Report** Joe Ciontea (none)

- Webmaster Report Mike Beranek
- WTC System Report Roger Stanford (none)
- Social Media Report Mac Chopin
 - ☐ Promote breakout sessions w/ uploaded photos
 - □ Facebook page resources, links, etc
- Interface Report Duane Apel
 - □ Cover design contest \$50 award approved
- **University Reports**
 - □ UW-Stout Barb Bauer
 - 60 students in TE program
 - Working w/ 2 Tech Colleges on 2+2 TE degrees
 - TEECA attending regional in Kansas
- **■** University Reports
 - □ UW-Platteville Duane Elfering
 - Enrollment up by 7 in TE program
 - Looking for Duane's replacement
- DPI / SkillsUSA Report Jake Mihm
 - □ Updating standards Drafts by spring 2024
 - □ SkillsUSA
 - Membership growing again
 - Wants to connect w/ officers
 - Website being cleaned up/ organized
 - Goals: Grow skills; Improve teacher relation ships; increase student membership
- ITEEA Report Mason Pautsch
- **District Director Reports**
 - □ District A Emily Fransway
 - □ District B Brian Schiltz
 - □ District C Brennan Mickelson
 - □ District D Jon Larson (unavailable)
 - □ District E Alan Mamerow (unavailable)
 - □ District F Eric Sutkay
 - □ District G Stephen Hadfield
 - □ District H Art Pronschinske
 - □ At-Large Mason Pautsch/Communications Director
 - □ At-Large Matt Schultz/SAP & Awards Committee
 - ☐ At-Large Ryan Ubersox
- **New Business -Dimmer & Paquette**
 - □ Update conflict of interest policy (Handbook) Joe
 - ☐ Theme ideas for 2024 conference Joe
 - □ President's reception planning Joe Ciontea
 - ☐ Social Media Presence Mac Chopin
- Future Meeting Dates Winter board mtg: Jan 5-6
- Adjournment

For additional information about this meeting contact any member of the Board of Directors. Complete minutes are available from Mac Chopin at chopinm@waterloo.k12.wi.us

■ 2024 DATES TO REMEMBER ▶ Jan. 19 - Feb. 23SkillsUSA Regional CompetitionsSee Page 26 March 6 - 8Wis. Dells, WI March 6 - 9 ITEEA Annual Conference Minneapolis, TN March 22 Articles Due for Interface Journal to Duane Apel May 15 WTEA Foundation Scholarship Application Deadline.... wteafoundation.org

EXECUTIVE DIRECTOR'S MESSAGE

Welcome Back!

By Joe Ciontea, WTEA Executive Director



By the time you read this the holiday season will be over and you'll be back in the classroom preparing students for the challenges they will encounter after graduating from high school. Hopefully you have already registered to attend the WTEA Spring Conference and have all your paperwork approved by the school administration. If not, there is still time to register. You can even register on site when you arrive - just be sure to make your hotel reservation before February 20th, when our room block closes, and the room rates increase.

Update your WTEA member profile. When we converted to the new membership software (Wild Apricot) we only imported the most recent members and not all of the information transferred over completely. Please go to the WTEA website and use the "Member Login" link in the

right sidebar, then select the "Edit Profile" button that appears in the main window. Update any fields that are empty or incorrect, especially your local technical college and your number of years teaching. That information is used for contacting members for area meetings and for verifying your award eligibility. Need help, or have questions, please contact the WTEA executive director or the operations coordinator; their email links are at the bottom of the right sidebar.

I look forward to seeing you in March. We have a lot of exciting things happening during the conference that I'm sure you will want to be a part of. Watch the WTEA website, the Technology Education listsery, and your email for updates.

PRESIDENT-ELECT'S MESSAGE

A New Career...or Not?

By Mike Paquette, WTEA President-Elect



After hours and hours of research I am ready to make a career change and start a business out of rally racing. Honestly, I have been binge watching the Subaru team rack up Rally racing team championships, so naturally I want to do this.

Ah, the next big thing, I get chills thinking about it. I love building spreadsheets with costing estimates, researching rules, dreaming... lots of dreaming, but then reality sinks in and here I sit. How do we make our dreams a reality? How do we stay energized? How do we build the dream, or how do we sprinkle a bit of our dream into our daily lives? These are the big thoughts I have been struggling with lately.

So truly, I have been obsessed with Rally racing and I have watched every season of "Launch Control" available on YouTube. I printed all the rules for building a Rally car to race competitively. I priced all the parts required for safety in a rally car. I have come to understand that I cannot finance a Rally car. I feel like I have been dealing with this my whole career. I have this great dream; then come to the realization I cannot do it.... Travis Pastrana would be so upset with me for giving up.

I may not be able to build and drive a Rally car through the woods of the U.P. near Marquette, but I could go to the race to watch. I could go to the Dells to go-kart race. I could go to Dirtfish rally school to learn how to race rally style. I could apply to Vermont Sports Car. I could use the knowledge I learned to help someone with their dream.

You know there is a lot I could do, but I focus on what I can't. I dwell on the negative, so how do I change this? I smile at work; I take long walks and I energize. I find one thing I can take from my new found knowledge and apply it to the classroom. Many things that I have brought to the classroom start like this. An idea, conversation, clinic, or a breakout session. Often the WTEA Spring Conference is where I take this moment, this chance to think, this chance to energize. I am excited once more to travel to the WTEA Spring Conference and to see you all there!



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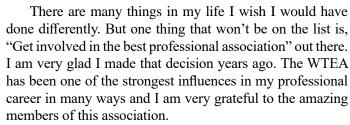
WTEA VICE-PRESIDENT CANDIDATE

Vitale Running for Second Term as Vice-President

By Anna Vitale, WTEA Vice-President

Anna is currently serving as the WTEA vice-president. She is running for re-election to a second term. Because she is running unopposed, our bylaws stipulate that she can be elected by a vote of the WTEA Board of Directors during the winter board meeting, thus saving the cost of a membership mailing to hold the election. This is a two-year term. The WTEA is always looking for members to get involved and assume leadership positions. Contact any board member to get more involved.

-Joseph Ciontea, Executive Director



I am running for re-election as vice-president. I have served in the position since January of 2022, and I would very much like to continue. Here's some background information: I'm starting my 20th year as a teacher. I graduated from Cardinal Stritch with a degree in elementary education and a minor in special education, then completed my 6-12 Special Education Certification through UW-Oshkosh.



After working with special needs students, I pursued a Tech Ed certification through UW-Stout's Add-On Certification Program because I really enjoyed supporting my students in Tech Ed classes (special ed staff were hesitant to be in 'shop class' - I was the one who eagerly said, "You betcha, I'll do that!"). We all know how students who struggle in traditional academics do extremely well in Tech Ed classrooms and I wanted to bring my special education training to the Tech Ed arena.

I grew up in a construction family and I loved to be at my dad or grandpa's side when there was a remodeling or building project of any kind happening...and there was one always happening. My dad would jokingly call me his 'workhorse.' I was heavily involved with SkillsUSA (VICA back then) throughout high school. Since that time, I've helped manage apartment buildings in one way or another, including remodeling, repairs or refurbishing for the next tenant, or helped with personal home remodeling projects. As a side job, I was an assistant to a master carpenter for eight years.

Like you, I stand behind the immense value of Tech Ed in our schools. I would be grateful to be allowed more time and opportunity to find ways to help our members in their work by continuing my role as vice- president.

NEW WTEA DIRECTOR-AT-LARGE

Heather Kiefer Joins Board of Directors

By Joe Ciontea, WTEA Executive Director

Heather Kiefer has been appointed to fill the vacant director-at-large position on the WTEA Board. Heather currently teaches middle school Technology Education and STEM at Slinger Middle School. In addition to teaching Introduction to STEM, Engineering in Motion, Drafting & Construction, and Introduction to Robotics, she also serves on the school's Guiding Coalition Team and is a member of the School District Advisory Board that meets with area industry professionals.

Heather's goal for our organization is to grow the network of middle school Tech Ed educators in our state and add to the system of sharing resources we began creating several years ago by offering support, helping to solve problems, and sharing ideas. Middle school is an opportune time to "hook" students into STEM related courses



and fields. She also would like to help grow the state's participation in extracurricular STEM activities at the middle school level, whether it's connecting them with organizations like SkillsUSA and Girls Who Code, or creating their own local STEM Club.

Heather received the WTEA Award of Excellence in March of 2023. She was also a recipient of a MET (Manufacturing, Engineering and Technology) Award, sponsored by Wisconsin Business World, in May, 2023.

As a WTEA Director-at Large, her principal responsibility will be to assist the board and association members in creating strong middle school Technology Education programs. Heather can be reached at Heather.kiefer@slingerschools.org.

WTEA ADVISORY COMMITTEE

Cattelino Named Chair of the Business, **Industry & Trades Advisory Committee**

By Mike Cattelino, WTEA Advisory Committee Chair

I was recently approached by several WTEA board members regarding the WTEA Business, Industry and Trades Advisory Committee. I knew this committee was part of the board's initiative to help connect students and teachers to potential business partners. When I left the WTEA board in 2022, because of a career move back to the private sector, the committee was chaired by Bryan Albrecht. He retired recently so the board was looking for someone to step in. Big shoes to fill. Well, I have big feet!

In all seriousness, I am humbled and honored to serve the WTEA membership as the chair of this committee. Aaron Bialzik (Director - UW-Stout Manufacturing Outreach Center), Ann Franz (Executive Director - NEW North Manufacturing Alliance), Jon Hirsch (Director of Business Development – Auer Steel & Heating Supply Co.), and Elizabeth Roddy (Director of Workforce Outreach - Associated Builders and Contractors of WI) are the other members of the committee...so far.

The committee has a page on the WTEA website (wtea-wis.org), found in the 'About WTEA' tab, that has details about the purpose of our work, a listing of committee members, and more. We have a lot of ideas and plans to help students and teachers better connect with business partners across Wisconsin. We plan to host a roundtable session at the 2024 WTEA Spring Conference where we will share some recent employer survey data showing employment trends and opportunities.

Much more to come from this dynamic group, for sure. Please feel free to reach out to us as it relates to working with businesses to enhance the classroom experience for you and your students.

My email: mcattelino@piercemfg.com











MOBILE LEARNING LAB

Students Get Opportunity to Explore Energy Careers

The Wisconsin Energy Workforce Consortium (WEWC), formed in 2014, continues to develop solutions to meet the current and future workforce needs of the state's energy industry. With the right education and training, students can begin a rewarding, well-paying energy career that benefits millions of people every day.

The WEWC's Mobile Learning Lab provides a great opportunity for students to explore the many career opportunities in the energy sector again this year. Help your students discover how the energy industry is growing and evolving.

To learn more, go to www.wi-energyworkforce.org/WEWC-Mobile-Learning-Lab, or visit us at the 2024 WTEA Spring Conference in March!

Check out WEWC's main website https://www.wi-energyworkforce. org/ for other educational opportunities and resources for students and teachers.

The work of the Wisconsin Energy Workforce Consortium (WEWC) is led by five energy companies with service areas in Wisconsin: Wisconsin Public Service, We Energies, Alliant Energy, Xcel Energy and Madison Gas and Electric.



Bring your administrator to the WTEA State Conference for

See pages 14-16 for more info

ACTE PROPOSAL

New Organization Proposed to Support Wisconsin CTE Professionals

By Michael Connet, Associate Deputy Executive Director – Outreach & Partnerships Association for Career and Technical Education

Greetings Wisconsin CTE Professional Friends! We want to keep you apprised of recent developments in the possible creation of a new organization dedicated to supporting CTE professionals throughout Wisconsin.

At the recent ACTE CareerTech VISION conference, a meeting was held to explore whether there is sufficient interest, and purpose, to form such an organization. We are pleased to share that Dr. Bryan Albrecht, President Emeritus from Gateway Technical College, is helping to coordinate this effort. A special thank you to those who were able to attend this meeting in person.

Nationally, the Association for Career and Technical Education believes its strength derives from having strong state CTE organizations led by leaders in the state that are dedicated to supporting their members and belonging to ACTE. We are excited and encouraged by the conversation at this meeting and are looking forward to additional meetings in early 2024.

Our goal in writing you now is to both keep you informed about these conversations and to encourage your involvement. We invite you to join a special discussion group we have set up in the CTE Learn Online professional development portal. To access the conversation just open a free account on the system and you will be able to join the Wisconsin CTE Organization Planning discussion group. There you will find a prompt to provide your input, share your own questions, along with files such as the agenda and notes from the first conversation.

Feel free to share this information with your colleagues, peers and friends who support CTE in Wisconsin. We are excited to learn of the energy towards such an objective and encourage you to please get involved in creating a new entity dedicated to supporting the professionals who lead high-quality career and technical education in Wisconsin.



Has your contact information changed recently? Is your WTEA membership up to date? Help us keep your contact information current!

Use the WTEA website "Member / Log-in" to check your status & update your profile! wtea-wis.org





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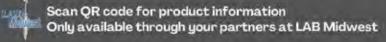




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NEW DPI TECH ED CONSULTANT

Mihm Shares His Thoughts on TE in Wisconsin and His New Role

By Jake Mihm, DPI Technology & Engineering Consultant and Wisconsin SkillsUSA Director

My Background and New Role at the DPI

My name is Jake Mihm and I am employed by the Department of Public Instruction as the Technology and Engineering Consultant for Wisconsin. In this role, I also serve as the state director for SkillsUSA. I wanted to take a moment to talk about Technology and Engineering in our

state, give you an idea of who I am, and share aspects of what I have come to understand about what my role at the Department of Public Instruction involves and how I can better serve you.

"I'm proud to be a part of such an important discipline that the world so desperately needs today."

I'll be the first to admit that I really did not know, nor do I currently know, all the details of my job as the Technology and Engineering consultant for the state. This particular role for DPI involves these categories: state standards, civil rights compliance, Perkins funding, and also the state director for SkillsUSA, WI. Admittedly, I am still learning new responsibilities every day within this role. I certainly do not have all the answers and I'm humbled to come to understand the work of those who held this role before me, as well as by all the terrific people I have had the opportunity to come in contact with these past four-plus months. Our profession is one of meaning, one of substance, and something that is part of a much larger whole. I'm proud to be a part of such an important discipline that the world so desperately needs today. I have come to understand that much of my role is to remain connected to all the important aspects of what forms our network of professionals to ensure that our offerings and experiences for students are meaningful and prepare them for tomorrow.

My background is in education. Like many of you,



Jake Mihm and family Menomonie

I am a Technology and Engineering 220 licensed teacher. I followed what we are now calling a "traditional education path" to obtain my licensing through UW-STOUT in the late '90s. Before I took on the DPI Consultant and SkillsUSA State Director roles, I spent 25 years in the classroom teaching a wide variety of technology and engineer-

ing courses in that time and was also a SkillsUSA advisor for a dozen years. I believe in the work that we are doing. Our content area couldn't be any more important than it is today. Business and industry need our students who are highly skilled and ready to fill the workforce gaps. I applied for this position because I thought I could help our

state progressively move forward on multiple fronts. This role provides me the opportunity to work with students, technology and engineering teachers, the Department of Public Instruction, industry partners, WTCS, several of our 4-year Wisconsin state universi-

ties, as well as our CESAs throughout the state. It has been great getting connected with a variety of stakeholders who have an impact on technology and engineering education within Wisconsin.

How Do We Continue to Prepare Our Students to Have Successful Careers?

There are many pathways to employment success, and reaching our personal and professional goals. I think our field is a prime example of living this out every day. We need to continue to adapt, change, and be a relevant source

for our students and their futures. We need to look to provide meaningful experiences that prepare our



ences that Nick Mauer presenting at the Welding Challenge at prepare our Blackhawk Technical College in Milton

students to be successful in their futures. That pathway may look very different from our own. We have teachers and students who have many opportunities to partner and learn in a variety of ways. Wisconsin has done a good job working on our career and work-based learning opportunities. Developing a plan to be successful in today's job market has become a primary focus in school districts today. Technology and Engineering course content and discipline aside, the additional "add on" opportunities we can provide students are second to none! Industry recognized credentials and work-based learning opportunities



Continued on next page...

...Continued from page 10

are extremely important for students, school districts, and communities right now. CTE programming in the state has taken a foothold in the importance of filling the work-



SkillsUSA Fall Leadership Conference state officer closing ceremonies, held in Wisconsin Dells with over 200 participants!

force gaps with highly trained and skilled professionals within high demand jobs many in school districts.

This specific job opportunity has allowed me to work in the big picture space of course content and pedagogy through standards work; and, the importance of certifications, dual credit opportunities, industry recognized credentials, and the full integration of career and technical student organizations (SkillsUSA) into our Technology and Engineering programming. All of these are examples of what districts are doing and supports the importance and relevance of academic and career planning and our regional Career Pathway work. This work continues to improve and will continue to evolve as the needs of our workforce demands continue to change. Helping students continue to make career connections while in school is imperative to closing the workforce gaps in high demand, high skill, and high wage employment opportunities.

New Technology and Engineering Standards Coming Soon

I'm sure you have questions about the Technology and Engineering standards. Coming into this role in August, I sure did too! Come summer and into the fall of 2024 the new Technology and Engineering standards are to be re-



Alan Mamerow (right) and Chad McLaughlin speak with student competitors at the SkillsUSA **District 5 Competition hosted by** West Bend High School.

leased and school districts will begin to implement these new standards into their programming. Currently, the Technology and Engineering standards are in an immersive review status. My goal is to have them out for public review in mid-January. Once the standards have been reviewed, we consider feedback, they are refined, formatted, and submitted for

internal review within the Department of Public Instruction. After they have been reviewed, they move on for final approval in April from Dr. Underly.

I Have Witnessed First-Hand the Great Work You Are Doing!

I wanted to share with all of you the importance of my role and getting out to see all of you and the great work you are doing. I am sharing a few photos of places I've been on my visits around the state.

So far, I've made three SkillsUSA welding competitions, the SkillsUSA Fall Leadership Lab, two district SkillsUSA competitions (Districts 4 and 5) and will be at

all six regional events, as well as SLSC. Additionally, I have had a chance to visit several school districts in my travels so far this school year and I am nothing but impressed with the



Terry Borres - Wisconsin Rapids Lincoln High School construction program.

work you are doing. Again, I'm humbled by the level of Continued on page 26...



DIRECTOR'S REPORT

New Woods Project Turns Out To Be A Win-Win

By Emily Fransway, WTEA District A Director

The first few years that my colleague, Shaun Peper, and I worked at Baldwin-Woodville High School we did the 'standard' coffee table intro project. The students enjoyed it and we didn't mind it either, but it was close to \$20.00 per project, they were hard to store, and there was not a lot of joinery involved. A few years in, Shaun came up with a clock project and to this day we still use it. The total cost for the clock project is only about \$8.00 (it depends on the lumber price for that year), it involves

more joinery, and they are much easier storage-wise if you are running two to three intro classes a semester. The table (at right) shows a comparison of how many machines and what joinery is used for the two projects. If you have questions about the clock project feel free to email me at efransway@bwsd.k12.wi.us.





Coffee Table Project	Clock Project
Miter Saw	Miter Saw
Jointer	Jointer
Table Saw	Table Saw
Planer	Planer
Router	Router
Kreg Jig	Kreg Jig
	Laser Engraver
	Groove Joint
	Dado Joint
	Finish Nailer



DIRECTOR'S REPORT

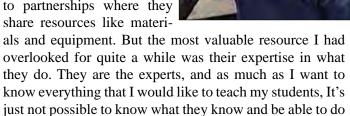
Utilizing Industry Professionals to Help Teach Our Students

By Jon Larson, WTEA District D Director

This year is my 10th year at Little Chute Area School District and my 19th in education. Over the years I have come to a great realization: I don't know everything, I can't

know everything, and that is a great way to get my industry partners involved. For the past nine years I have been working, like many of you have, to build relationships and partnerships with local businesses. These relationships have started as places that would give tours to my classes, and have progressed to partnerships where they

what they do.



By creating these relationships, I have been able to help get my students genuine experiences through many different means: "Lunch and Learns," industry tours, trade shows, youth apprenticeships, and now bringing our partners into school to work with our students. This year I have worked with two of our partners to do some very specific



projects that mimic what they do in their industry.

Eagle Performance Plastics is a local custom CNC machine shop that makes a lot of parts for the food industry. We are working with them to have students design and CNC machine

custom cutting boards. We started with a tour of their facility and learned about who they are and what they do. Now we have one of their machinists/programmers coming in to work with the students to have their creations come to life.

Team Industries is a local pipe fabrication company. They utilize UA Local 400 welders and fitters to build piping systems for use in the gas, oil, chemical, and food industries. We started working with them and learning about pipe welding and fabrication. This year we were able to get a pipe welding positioner and work with Team Industries to have a welding instructor from the local union come

> over and work with our students to teach them about how they weld pipe. These students got to tour the facilities and have hands-on instruction with an expert. The VP of Manufacturing from Team Industries talked to the students about how if they can do these welds here, it's the same at their shop, and they can sell those

These experiences with our local industry partners have become a great enhancement to my classes. My students get to interact with industry professionals, and have genuine real world experiences. These partnerships have created resources and support that are so important to keeping our program moving forward and very relevant. I look forward to all the opportunities that I get to help create for my students by leveraging these partnerships.



WTEA SPRING CONFERENCE & TRADE SHOW

Focusing on the Future

By Steve Johnston, Program Coordinator

"This year's conference will

again feature some of the top

Technology and Engineering

educators throughout

Wisconsin. Put March 6-8, 2024,

on your calendars..."

The WTEA invites you to participate at the 55th Annual Spring Conference, March 6-8, 2024, 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 administrator with you to the conference; administrators are admitted free when accompanying a registered Technology & Engineering educator.

We kick things off on Wednesday, March 6th, 2024,

with the annual awards banquet. We will recognize and honor our colleagues for their outstanding contributions to Technology and Engineering Education as well as program award winners during the banquet, beginning at 7:00 PM. The

banquet cost is \$32, advanced purchase is required. This is a great way to show appreciation and support for your peers.

On Thursday, March 7th, the conference will begin with a general welcome to all members given by WTEA President, Doug Dimmer. Our first general session will be given by Matt J. Simpson, Senior Project Engineer - Trane. Matt will give an overview of Trane Technologies, their commercial products, and products manufactured in their La Crosse, Wisconsin facility. He will cover the engineering, operations, and the skilled labor fields they use to produce their products. Trane is a vertically integrated company and utilizes all engineering fields and skilled labor skill sets to produce their products.

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 school board member looking for input to update a program.

Don't miss the annual President's Reception on Thursday, which will begin at 7:00 PM and end at 9:30 PM in the lower atrium level, which will include complimentary refreshments, live entertainment, and a silent auction to benefit the WTEA Foundation.

On Friday, we will again host the Early Riser

Breakfast. During this time, we will have our General Membership Meeting, presided over by President Doug Dimmer. Following the General Membership Meeting, the day will continue with diverse sectionals and vendor-sponsored workshops, as well as the popular "Make and Take" sessions (see page 17 for details). Friday's schedule also includes a day of hands-on automotive technology sessions at nearby Easton Motors.

Our mid-day luncheon will be followed by a keynote address from Katherine P. Frank, Chancellor,

University of Wisconsin-Stout. As CTE professionals, we are educating at the center of this dynamic reality. This keynote will consider what it means to be both student-ready and future-ready in order to best prepare our students for

the workforce they will enter in the next decade, and continue to influence, as they advance as professionals.

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: Fab Lab Community Partnership, Aviation Club, Artificial Intelligence, High School Academies, Cabin on Wheels, Mini Foundry, Graphic Design, Home Maintenance, National Board Certification, Reimagining Tech Ed, Make and Take Sessions, Automotive Curriculum Best Practices, SkillsUSA, Middle School Roundtable, New Teacher Boot Camp, the popular WTEA Project Showcase, and much more!

Put March 6-8, 2024, 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 \$165 for members and \$200 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. The deadline for conference rates is Feb. 20, 2024.

For room reservations contact Chula Vista Resort, 2501 River Road, Wisconsin Dells, WI 53965; 833-621-4953; Use WI Technology Education 2024 Booking ID# J28917.

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



55th Annual Technology Education **Conference & Trade Show**

Conference Overview

Wednesday, March 6, 2024

5:30 p.m. - 8:30 p.m. Conference

Pre-registration

6:45 p.m. – 9:00 p.m. Awards Banquet

Thursday, March 7, 2024

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

Thursday Keynote Speaker:

Senior Project Engineer Trane

Matt J. Simpson



Thursday, March 7, 2024

Friday, March 8, 2024

7:00 p.m. – 9:00 p.m. President's Reception

6:45 a.m. - 7:45 a.m. WTEA Breakfast

7:45 a.m. - 8:30 a.m. WTEA Membership

8:45 a.m. – 12:15 p.m. Concurrent Sessions,

12:30 p.m. - 2:00 p.m. 2nd General Session &

2:15 p.m. - 3:30 p.m. WTEA Board Meeting

7:30 a.m. – 11:30 a.m. Conference Registration

Meeting

Demonstrations & Project Showcase

Luncheon

Friday Keynote Speaker:

Katherine P. Frank Chancellor University of Wisconsin-Stout

Session Topics Include: PLTW Roundtable - Problems & Solutions, Solar PV Training, Video Creation on YouTube, Working Through a Referendum, Fab Labs in Education, Pathways and ACP, Energy Debate, WTEA Student Ambassador Program, Automotive Curriculum, Epoxy Projects, VCarve/Aspire software, Off-Site Building Construction, FANUC Robotics Certification, Lost Foam Casting, Retirement Basics for New Teachers, New Welding Projects, Building High Mileage Vehicles, Project Showcase, SkillsUSA, Middle School Roundtable, New Teacher Boot Camp, and much more!

Help your students find their passion & fulfill their potential





Chula Vista Resort



4031 River Road, Wisconsin Dells www.chulavistaresort.com Toll Free Dedicated # for reservations 1-833-621-4953

*Ask for WTEA Conference Rate! See page 16 for details.

MEMBERSHIP FORM & CONFERENCE REGISTRATION

WTEA Membership Application & March 6-8, 2024 Conference Registration

*Membership Fees: [] 3 year membership - \$90.00 [] 1 year membership - \$35.00 \$_____

*Spring Conference Registration:

Send completed form with payment or school purchase order to: WTEA, P.O. Box 373, Hazelhurst, WI 54531-0373

Phone (920) 904-2747 • E-mail: jc.wtea@gmail.com

If your school uses ACH payment please contact the WTEA for new bank routing.

*Room reservation: DEADLINE FOR CONFERENCE RATES - 2/20/2024

Room Rates: Tower Jr. Suite - \$149 • Two-bedroom Condo - \$229 • Three-bedroom Condo - \$399

Toll Free Dedicated # for reservations 1-833-621-4953 • WI Technology Education 2024 Booking ID# J28917

Chula Vista will also honor the state rate for single rooms upon request with appropriate documentation.

GET PUBLISHED & GET A FREE WTEA MEMBERSHIP! Write an article for the *Interface* & receive a BOGO discount on your next membership renewal! Submit to Duane Apel, at Interface.wtea@gmail.com

Install the 2024 WTEA Conference App (Yapp) on Your Mobile Device:

- 1. On your smartphone, visit https://my.yapp.us/2024WTEA or use the QR code below
- 2. Follow instructions on screen (It's a quick two-step process)





Already have Yapp App installed?

- 1. Tap "Download existing app" or green "+" button (top right).
- 2. When asked for Yapp ID, enter **2024WTEA**
- 3. Press the device's "enter" button, or tap "Add" (top right).

*NOTE: The app goes live in early February. Go to the App URL to access the conference schedule on your computer.



EDITOR'S NOTE

Interface Cover Design Contest

By Duane Apel, WTEA Interface Editor



I am very pleased to announce that beginning with the 2024 spring issue, the cover of the *Interface* will be designed by Tech Ed students (or teachers, if interested). The goal was to feature some of our very talented students from across the state by giving them an opportunity to submit a design that promotes our theme for the year. For the upcoming spring issue, we received an overwhelming response with 43 designs submitted!

There were many quality designs, making it a difficult decision for the WTEA Board to narrow them down to just one. The winner will be announced in late January and that winning cover will be used for the spring, fall, and winter issues. A special thank you to the teachers that promoted it to their students which helped make this plan a big success. If you have interest, watch for the announcements for contest entries again next fall for 2025.

"MAKE & TAKE" AT SPRING CONFERENCE

Don't Miss This Chance to Learn About Aviation Lessons & Activities Using A Scratch Build Process

By Tom Barnhart, WTEA Board and Conference Exhibit Coordinator

This STEM session guides the instructor through a series of lessons/activities, culminating in the student acquiring new aerodynamic concepts and skills through project-based, low-cost learning. Students will have the opportunity to apply design thinking skills through an Engineering Design Model to create a solution to a problem. This event is supported by the EAA and Flite Test.

Alyssa Horpedahl, youth education center program manager for EAA, will facilitate this make & take that's easily in-



corporated into a wide variety of learning environments and instructor needs, including but not limited to: home-centered education, classroom education, summer camps, and after-school programs.

In aviation, STEM education is especially important as the industry relies heavily on advancements in technology and engineering. Professionals

in the aviation industry need to be well-versed in the latest developments in fields such as aerodynamics, avionics, and propulsion systems to design and maintain safe and efficient aircraft.

Flite Test STEM is an educational program that helps students soar. Developed by Flite Test, a company specializing in the design and production of remote-controlled (RC) aircraft, the program is designed to inspire and educate young involve building and flying RC planes

people through hands-on projects that and drones.

Steve Meyer, Fox Valley Technihelp guide instructors through this low cost and fun for students. Come get your hands dirty!

FOR MORE INFORMATION Check out: www.ftstem.com AND www.EAA.org

cal College, will also be on hand to scratch build process to keep lessons join in the learning and be ready to





WTEA FACEBOOK GROUP Ask Questions! Share Ideas!

Join



Join Your WTEA Tech Ed Colleagues on Facebook!

THANK YOU.



As the year wraps up, we want to extend our gratitude for your dedication to shaping minds and your trust in H2I Group. Your commitment to education inspires us, and we're honored to support your journey with our products and services. Thank you for being remarkable teachers and valued H2I Group customers. Wishing you a season filled with joy and a new year brimming with new possibilities.

YOUR WISCONSIN TECH ED TEAM



LARRY GRANEC | LGRANEC@H2IGROUP.COM | 608.630.1018

Contact Larry Granec for consultation and pricing on H2l Group solutions. Larry has over 10 years of experience with H2l Group working to help Wisconsin educators meet the needs of ever-changing technology and equipment in their classrooms, shops, and labs. Larry is a former educator himself and is always excited to share his passion for education and H2l Group offerings with his customers.



PHILLIP PAPADANTONAKIS | PPAPADANTONAKIS@H2IGROUP.COM | 773.720.4359

Contact Phillip Papadantonakis, H2I Group Service and Applications Engineer, with any questions, or to get support or schedule service on H2I Group equipment. Are you new to teaching or at a new school this year? Phillip can also assist with onsite training on H2I Group equipment you may not be familiar with!

> SCAN OR VISIT US ONLINE TO LEARN MORE ABOUT H2I GROUP AND OUR TECH ED SOLUTIONS



H2IGROUP.COM









Formech







.... UltiMaker



(M) MakerBot











IRON DOG DIMMER WANTS YOUR PROJECTS!



Overview

This March 6th, 7th, and 8th is the 55th annual WTEA conference at Chula Vista in the Dells. This will be our 15th annual Project Showcase sponsored by Madison College. For those of you not familiar with Project Showcase, this is an opportunity for you to bring your student or personally made projects to help inspire other teachers. It is one of the simplest ways to add value and contribute to the WTEA conference.

The Process

It would be great if every WTEA member could bring even just one project. Conference Room I will be set up with tables. Bring your project(s) and set them on a table. I will have nametags that you can fill out so people can contact you if interested. Tables with electricity are available. Activities that have been a big hit in the past include:

- CNC machining items
- Robots
- Woodworking projects
- Welding art
- Laser engraved items
- Electronic circuits
- 3D printed parts
- Graphics samples
- CAD drawings
- Model homes
- Board games
- LED signs



Proud sponsors of the 2024 **Project Showcase**

Awards & prizes given to members who contribute to Project Showcase success!!

Coming Soon

Watch for more information on the web and DPI listserv as time gets closer. Please email Steve Meyer at meyerst@fvtc.edu with any questions.

Project Showcase 2024





Rally in the Dells!

IS YOUR MEMBERSHIP EXPIRING?

Help us keep your contact information current! Jse the WTEA website "Member / Log-in" to check your status & update your profile!





WTEN WTEN WTEN WTEN WTEN WTEN

WTEA Foundation Scholarship Applications Due May 15

The WTEA Foundation is offering a renewable \$1,000 scholarship for a high school senior or graduate 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 by May 15th

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

WTEA Foundation Raffle

at the spring conference to support the WTEA Foundation

Tickets \$5 each or 3/\$10

Tickets available from WTEA Board members or at the spring conference.

Tickets will be sold at conference up until the drawing. The drawing takes place on Friday, March 8, 2024 at the end of the noon general session.

Winners need not be present to win.

Prizes Donated by WTEA Business Partners and Sponsors

Watch WTEA website & listserve for details

The mission of the WTEA Foundation is to provide scholarships and fund STEM (Science, Technology, Engineering, 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.





See you at the WTEA State Conference March 6-8th at Chula Vista, in Wisconsin Dells!

LENNOX VISIONTECH CONFERENCE

High School Students Invited to Receive Free Training

By Mike Grulke, Lennox Territory Manager

Lennox VisionTECH is excited to host its 12th annual world class training event. Lennox VisionTECH was originally built to provide a one-day training event for local Lennox HVAC Dealers and their employees. After a couple years our Dealer Advisory Committee realized that our aging employees will soon be retiring, and we lack the qualified and trained workforce to back fill those employees that served their time. This is when Lennox VisionTECH started to network with the Wisconsin technical colleges and universities.

This relationship with colleges has been very successful and we continue to learn and grow alongside the upcoming talent within the HVAC industry. Our technical college partners started to see a decline into their programs and once again our Dealer Advisory Committee stepped up to the plate. It was proposed to expand VisionTECH and help high school students see what a career in HVAC is all about.

We now have 700 people exlearning, day peting



attendance of over cited to spend one growing and comeach other.

Starting in 2015, we had our first group of high school students attend Lennox VisionTECH. To date, we see anywhere from 20 to 50 students come to VisionTECH with their parents or teachers to learn alongside some of the greatest HVAC professionals in the industry; all for free mind you. At VisionTECH students can get hands-on training with soldering and brazing, or even bending up sheet metal in a live lab. You can expect to learn more about Lennox's industry leading and technically advanced equipment. Students will walk away learning what the HVAC industry is about, get a glimpse into an education path with Wisconsin technical colleges, and see what Lennox is doing to embrace our motto of, "Air is Life, Make it Perfect."

As members of WTEA, we know you value training and continuing education. We invite you to explore what Lennox VisionTECH could do for you and your students. On April 1st, 2024, we will be at the Wilderness Resort in the Wisconsin Dells all day to serve you and vour students.

Please feel free to learn more about Lennox VisionTECH online at Lennox Vision.com or reach out to Dave Chatmon at dave.chatmon@ lennox.com or Mike Grulke at mike.grulke@lennox.com.







Attendees listen to a speaker at VisionTECH 2023 at the Wilderness Resort, in Wisconsin Dells, last spring.



Conference attendees look on during a soldering and brazing breakout session at VisionTECH 2023 (above & below).





A Lennox presenter explains HVAC principles at VisonTECH 2023.

NO REST IN RETIREMENT?

Retired TE Teacher Starts Up Two Businesses

By Tom Juran, Retired Brookfield Central HS Tech Ed Instructor

Career and Technical Education instructor, Tom Juran, retired from a 38 year teaching career and hasn't had time for the recliner or the golf course. In June of 2022, Tom said goodbye to friends and students at Brookfield Central High School where he served as a Tech Ed teacher, department head, yearbook advisor and LAUNCH instructor. "I would have taught for another twenty years as I loved going to work every day," said Juran. "But after COVID, and attempting to teach a hands-on subject virtually. I decided life was too short and needed more

flexibility to pursue the many other items on my always expanding bucket list".

At the top of the list was spending more time with family, traveling, and pursuing his passion of the outdoors and woodworking through the start of two new businesses with his brother, Tim Juran. "Tim and I were brainstorming a few years back about what we wanted to do in our retirement. We both wanted flexibility, doing something we loved, being outdoors and woodworking." We were looking for something meaningful that could use

Tim's engineering and technical expertise and my more creative, and teaching, background." It was decided to create two separate LLC's that complement each oth-Tom formed WiMke (a play off his roots southeast Wiscon-



Brothers Tom Juran (left), a UW-Stout grad in Technology Ed- dimensional lumber comucation, and Tim Juran, a UW-Platteville Mining Engineering menced this summer. graduate, recently launched two new businesses. Driftless Hardwoods, based in Soldiers Grove, is a custom sawmill business specializing in large format live-edge slabs and not only cutting, stacking lumber; and WiMke (We Make), which converts that lumber into furniture, bar/countertops and live-edge shelving. Find them at Driftless Hardwoods on Facebook and Instagram.

ness specializing in live edge, solid slab-based tables and shelving--some with epoxy pours and fills; as well as wood bar and kitchen countertops. features custom milled wood from brother Tim's business, Driftless Hardwoods, based near Soldier's Grove in the southwest part of the state.

After a year's wait for the new Woodmizer LT15Wide sawmill, cutting live edge slabs and They have been busy and drying their beautiful driftless hardwoods, but acquiring the nec-

essary tooling, building a control system for the kiln, planning the website, and figuring out how to promote their businesses through social media. Tom's teaching background in photography and media production helped, however the two didn't realize the amount of work required. Tom reflected, "Running an Instagram account does not come naturally for two sixty-somethings. I've enjoyed learning, but it often seems I'm spending more time editing reels than I am cutting wood!"

Continued on next page...



While teaching at Brookfield Central HS, Tom's team garnered community support and with the "We aid of a WEDC grant, established an interdisciplinary Fab Lab at Central. Tom hopes to continue Make"), a furniture busi- his ties to CTE through consulting with districts on curriculum, fab labs and the maker mentality.

...Continued from page 22

They are on Facebook and Instagram and will launch their website, TikTok, and YouTube channel soon.

For several years he taught Media Solutions in Elmbrook's LAUNCH program. The program was a paradigm shift in the way he approached his subject matter. "For thirty-plus years I was so content driven, focusing almost entirely on learning targets tied to specific job skills required strictly in the printing and media fields. LAUNCH is a profession-based program that, although organized around career strands, takes a more holistic approach to delivering CTE education." The LAUNCH website reports, "Students fast forward into their future and are fully immersed in a professional culture, solving real world problems, using industry standard tools and are mentored by actual employers, all while receiving high school and college credit". "It's almost as if my time teaching in LAUNCH helped prepare me, as much as my students, for this business by forcing



Tom Juran, retired TE teacher, former WTEA TE Teacher of the Year, Kohl Foundation Fellow, Yearbook Advisor of the Year, and Brookfield Central Teacher of the Year. He keeps busy with two new businesses: WiMke and Driftless Hardwoods.

me to learn project management, business acumen, storytelling through digital media, and the like.

Only a few months into production, WiMke and Driftless Hardwoods are excited about where they are and what's ahead. With nearly 700 slabs and 5,000 board feet of 4/4 and 8/4 lumber of white oak, walnut, cherry, elm, box elder, red oak, and hickory cut and drying, and customer orders coming in while they wait for the first kiln load to be dried, the Juran brothers feel comfortable their future is bright. They are currently taking orders and

Tom's passion for woodworking classes will ensure instructors will get top quality and priority. "Although slabs are currently our priority as they take the longest to dry, we can fill a school's orders needed for the '24-'25 school year. Heck, I'll even throw in free delivery and a lesson on hardwoods, kiln drying or safe sawmill operation" said Juran.

TEECA CONFERENCE

UW-Stout Students Compete at Four-State Regional Conference

Submitted by UW-Stout TEECA Students

Four UW-Stout TEECA students had the excellent opportunity to attend the Four-State Regional



Technology Conference held at Pittsburg Tech, in Pittsburg, Kansas this past year.

They participated in two activities: The Problem Solving Challenge and the Lesson Plan Challenge. In the Problem Solving Challenge students were tasked with having a system with the designated purpose to fix the broken pipeline. This system was supposed to symbolize a real-life solution that could be implemented. Students were given a time constraint as well as a set of materials to be used for their system. The Stout students did well, despite their tough competition. They learned a lot about quick thinking and how to improve solutions. This challenge was designed to get students thinking about the Engineering Design Process and to simulate a real-life problem with a real-life solution.

Additionally, the Stout students competed in the Lesson Plan Challenge where individual students would micro-teach a lesson in 15 minutes and be scored. The lesson had to center around a mathematical concept, to emulate the idea that Tech Ed majors are not just "Shop Teachers." For this challenge the Stout students worked together to create a lesson plan for a 6th grade level class on measurement. The lesson had a main focus of "the inch," and was designed to teach students the most basic unit of the imperial system, inches. This lesson was presented to the judges with a slideshow, demonstration, and class work, and was then judged. Miranda Johnstone presented, "Inches and Action," an introduction to imperial measurement for 6th grade. First place in the Teaching Lesson Challenge was awarded to the UW-Stout student!

Seminars were held on Friday. Various professionals and Tech Ed teachers from the neighboring schools were the presenters. Various ideas were taken from the workshops, with the hope to implement in the future.

TEECA attendees: Lucas Edson, Cadence Calkins, Miranda Johnstone, Evan Verboomen, and advisor, Barb Bauer.



UW-Stout TEECA students at the Four-State Regional Conference at Pittsburg Tech, in Kansas.



FEMALES IN TE CLASSES

How Do We Get Females and More Non-Traditional Students Into Our Tech Ed Classrooms?

By Anna Vitale, WTEA Vice-President and TE Instructor - Dodgeland High School

There's an odd dynamic happening in our Tech Ed enrollment. I also hear about it from other teachers, and I can't quite put my finger on the 'why.' So, I've been doing some research about it.

Why do middle school female students show so much

interest in Tech Ed classes, professing their intent to take high school Tech Ed, and then, when they get to high school...they don't sign up. I've even had them sign up, show up the first few days and then drop the class, citing the reason, "Because they are the only girl in class." But, wait a sec. A few months ago, you confidently told me that you wouldn't care if that would be the case?

Another puzzle: Girls who have demonstrated a resilient nature, easily shrugging off any attempts of peers to denigrate them, confidently taking a metals or woods class...but then, not participating. They say they like the class, they like welding/woods, but they don't do anything in the class. I wonder if what is happening in the teenage girl's mind goes beyond our usual surmises of why we don't see more females in Tech Ed classes (despite our efforts to cultivate the interest).

The articles I've read cite all the usual dilemmas and solutions. For instance, in a wood shop, female

students may be dissuaded from carpentry work because it appears difficult or even dangerous. The fear of using power equipment can be overcome by providing them ample support, encouragement and practice to safely operate the machinery. Having strong female role models that promote the classes and demonstrate proficiency in these areas is also vital toward increasing the female population in Tech Ed (see below for all article citations).

A female may be discouraged by unintentional messages from peers, family and relatives. Young people today have parents or grandparents from a generation where their own experiences were grounded in the '80s and '90s, a time when it was still rare to see a female in a Tech Ed class. Family influence can play a big part in whether female stu-

dents take Tech Ed classes in ways we may not consider at first. In a recent conversation with Dr. Marissa Jablonski, she spoke of how kids do what their parents do. Her dad did woodwork but not mechanical work, which means today she can more easily work with wood rather than cars. Kids

become familiar with the tools, terminology and techniques of their caregivers from a young age. Dr. Jablonski wishes she had hung out in hardware stores more as a kid because once she started running engineering projects, she realized she was at a disadvantage of missing simple vocabulary of water system parts and pipe.

Last spring, Dr. Jablonski spoke at our WTEA conference, and I found the stories of her personal journey in the many fields of science very interesting for several reasons. First and foremost, because her voice is representative of what most females experience as they try to break into STEM careers. I could relate to what she was saying because I had also met similar challenges. Dr. Jablonski began her career in environmental science and went on to get her engineering degree because she wanted a voice in society. One of the articles I read stated that most women go into engineering "to become socially responsible engineers, working to solve major problems and make a difference

in people's lives." Dr. Jablonski shared that a desire to do engineering work that is 'socially conscious' was her purpose for pursuing a career in engineering. She wanted to do more than simply interact with people, she wanted to work with them and help them work with the earth, not against it.

She discovered a male-dominated field. She recalls a colleague, another student in the engineering program say, "My mom says girls aren't good at math and that's why there are so few of you (in engineering)." Unless a girl is equipped with the facts that girls tend to stop showing off their math and engineering skills and head toward social skills after middle school, a statement like this isolates that person and they may choose to change to a major where

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"A female student may be discouraged by unintentional messages from peers, family and relatives."



A Dodgeland High School student practices her soldering techniques on copper pipe.

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they fit in. In my early twenties, I wanted to start learning how to run my dad's roofing and siding business and received a stunned look of disbelief and then a flat, "Girls don't do that." (I think he regrets that decision now that I

have worked for years as a master carpenter's assistant).

The articles brought up other interesting points. Do guidance counselors inadvertently steer girls toward academic classes by brush-

ing aside the Tech Ed class offerings? One article blasted the College Board's intentional push for AP classes in our nation's high schools which, in turn, force students who are pursuing a path toward four-year colleges to avoid Tech Ed classes.

I mentioned to my daughter I was writing an article about girls taking Tech Ed classes. She said, "That reminds me of a research study we read for class." (She's going to school for nursing). She shared it and I was hooked on learning more about this.

The study "Ambient Belonging: How Stereotypical Cues Impact Gender Participation in Computer Science" was published in the Journal of Personality and Social Psychology © in 2009 (American Psychological Association 2009, Vol. 97, No. 6, 1045-1060) and demonstrated how:

"People can make decisions to join a group based solely on exposure to that group's physical environment. Four studies demonstrate that the gender difference in interest in computer science is influenced by exposure to environments associated with computer scientists. ... simply changing the objects in a computer science classroom from those considered stereotypical of computer science (e.g., Star Trek poster, video games) to objects not considered stereotypical of computer science (e.g., nature poster, phone books) was sufficient to boost female undergraduates' interest in computer science to the level of their male peers. Further investigation revealed that the stereotypical broadcast of a masculine stereotype discouraged women's sense of ambient belonging and subsequent interest in the environment... but had no similar effect on men... This masculine stereotype prevented women's interest from developing even in environments entirely populated by other women... Objects can thus come to broadcast stereotypes of a group, which in turn can deter people who do not identify with these stereotypes from joining that group."

This was a fascinating case study which I plan on digging into more. How can we as educators create environments that are truly welcoming to all? How can we ask for help to do this?

I am determined to explore this further. It is incredibly important to me that young women know and understand the expansive career opportunities that are out there and growing at an exponential rate. I believe it is also important for us as technical education teachers to play a bigger role in cultivating and increasing the female and non-traditional student demographics of Wisconsin Tech Ed classrooms.

"How can we as educators create environments that are truly welcoming to all?"

My goal is to create an ongoing conversation that will explore, gather, and subsequently offer to our members, a collection of solutions, strategies, methods and tools. I am very pleased (and grateful!)

that Dr. Marissa Jablonski is also passionate about this subject and I look forward to conversations with her as I wrap my brain around this subject. My hope is that we as an association will find remedies that we can implement in our schools. Stay tuned – more to come.

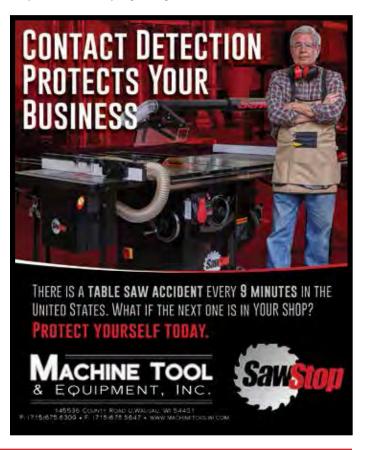
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Mihm Takes on DPI Role

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professionalism within our profession. I'm proud of the high number of programs around the state of Wisconsin delivering the high-quality technical education that our students deserve. I continue to be impressed by the excellent SkillsUSA chapters I have had the privilege to witness in action. Thank you to all of you who for the countless hours

and work you put your students! It for me to wit-It's what fills me action, to see our



in offering more to has been so good ness you in action. up. To see you in kids involved, and

to know that we are dedicated to delivering quality students who will someday be employable because of the work we do. It's important for me to witness all of this and I appreciate the open invitation you have all extended to me. Thank

I am looking forward to the WTEA conference this coming spring and networking with many of you. I am currently planning on giving updates on SkillsUSA and current Department of Public Instruction updates as well. I will have a more formal presentation description as that time nears.

TOMAHAWK HIGH SCHOOL STUDENT PROJECT

Submitted by Brian Schiltz, WTEA District B Director



Tomahawk High School students are given the opportunity to make a gift for a person of influence.

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MET AWARD WINNERS

Four TE Instructors Receive Awards from Wisconsin Business World

Wisconsin Business World - a program of WMC Foundation - is pleased to announce the winners of its inaugural Manufacturing, Engineering and Technology (MET) awards program. The program, sponsored by Plexus, recognizes outstanding Wisconsin high school and

middle school teachers who have demonstrated a commitment to advancing manufacturing, engineering and technology principles in their classrooms.

Wisconsin Business World applauds educators who creatively and passionately expose students to STEM opportunities and career fields. As the largest industry in the state, manufactur-

ing employs roughly 500,000 Wisconsinites. The MET awards program highlights teachers who work each day to ensure the state's workforce is equipped with the skills and knowledge necessary to thrive in the manufacturing, engineering and technology industries.

Roy Ward

"We are thrilled to recognize these outstanding teachers for their commitment to preparing their students for careers right here in Wisconsin," said Wisconsin Business World's Senior Director, Michelle Grajkowski. "Each of the nominees are making an impact in their students' lives, local communities and our state."

After a months-long nomination and application period, winning teachers were selected by an independent panel of judges based on exceptional curriculum, unique classroom projects, teaching philosophy and more. Cash prizes were awarded to first, second and third place winners in both the high school and middle school categories. Among the six winners were four Technology Education teachers, with one capturing first place for high schools and three others sweeping the middle school category.

Roy Ward, a Technology & Engineering instructor at Webster High School, and the 1st place winner for high school instructors, shared his feelings about receiving this honor: "It is always nice to be recognized for something you've put many hours and years into. I was told by one of my good friends in ed-

ucation, Dan Conroy, that

I needed to self-nominate

for the MET Award and he

would help gather letters of support. I took a look

at it and thought our Tiger

Tech program was worthy

of the award. I say we,

because I am surrounded

by wonderful people who

share my passion for kids

and the vision of our pro-

gram. That is what I have



Presented by Wisconsin Business World, in partnership with Plexus Corp.

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Craig Cegielski

WMC

at Webster - a great team of wonderful people.

The event was very nice. We had time to network and it was great to hear about the amazing programs in manufacturing for students in Wisconsin."

The winners were recognized at a ceremony at Plexus, in Neenah, on May 25th. For more information about Wisconsin Business World and its programs, visit www.wmcfoundation.org/wisconsin-business-world.

2023 MET Technology & Education Instructor Award Winners:

High School:

1st Place - Roy Ward - Webster School District

Middle School:

1st Place – Craig Cegielski - Eleva-Strum School District 2nd Place – Heather Kiefer - Slinger School District 3rd Place – Jon Larson - Little Chute School District



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