

HI-TEC 2021 Virtual, TRANSCRIPT, Day 1 (Wed July 21)

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☑Rachael: Hi, everybody. Welcome to HI-TEC 2021 virtual.

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My name is Rachael Bower, and I

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am with ATT central -- A TE Central, and I am pleased to

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be the chair of the HI-TEC committee this year. We are so

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happy you took the time to join us for two days for

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action-packed programming.

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We hope you will enjoy our wonderful event and wonderful

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lineup of speakers today and tomorrow.

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At this time, I would like to welcome Dr. Celeste Carter,

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lead program officer for 8 ATE.

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A big thank you for continuing to support HI-TEC. I will now

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turn it over to Celeste for some welcoming remarks.

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☑Dr. Carter: Thank you, Rachael.

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I would like to add a welcome to the people who are registering

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as we speak to the high-impact technology conference.

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This is the 13th year for this conference to be going on, and

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it came about through the ATE community.

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We have a principal investigators conference every

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year, but many of the members of the community decided that was

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for people who already had awards. They wanted to reach out

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to industry and education, people

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who did not know about this program and convince them that

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this was a wonderful opportunity to consider.

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The ATE program has been around for a while now.

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It was congressionally mandated and signed into law in 1992 with

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the scientific and advanced technology act, so

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quite a while for the National Science Foundation to have an

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ongoing program. It's an interesting program, because it

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does something that I hear industry asks for a lot --

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industry often will they, there is a real disconnect between

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what is happening in the academic education world

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and the kinds of knowledge skills and competencies we need

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in our employees. That can kinda be across the board.

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But that act mandated the National Science Foundation to

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start a program that focused on the skilled technical workforce,

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and that is the latest term for it. You may have heard middle

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skills jobs, blue-collar jobs, no caller jobs.

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There's a lot of different definitions, but the idea is for

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all of the industries where technology is advancing

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rapidly, changing the kinds of knowledge, skills, and

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competencies needed by both incumbent workers and potential

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new employees.

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The ATE Program focuses on two-year institutions to educate

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that skilled technical workforce, which is workers that

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need generally more than a high school degree now, but not

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necessarily a four year baccalaureate degree. That's the

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focus of ATE. Because of that space, Congress

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said, this program should focus on two year institutions of

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higher education. The community and technical colleges across

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the United States. That's the focus of a TE.

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Jumping back to the high-impact technology conference, I see

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this as a real example of where the National Science Foundation

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positions itself as a catalyst for innovation, change, research

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and education. I think that the high-impact technology

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conference is a great example where the centers

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got together -- if you noticed the sponsors, quite a few of

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them were different ATE centers. They got together and said,

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this is something the entire nation needs to know about.

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Partnering industry and education, developing and

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educating a workforce that industry needs, impacting

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economic development regionally -- all of those things are

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things that have come about based on the catalytic action of

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the advanced technological education program.

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So my job then was to welcome you today. I would also like to

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say, I know it's more difficult in a virtual environments, but

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still possible to network. It think about different ideas

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and projects you might have, given the basic information I

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have given you about this program.

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Please go to the NSF.gov website.

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With that, I will just say welcome again. I know it is

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going to be an exciting conference. I will turn this

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back over to Rachael. Thank you.

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☒Rachael: Thank you so much, Celeste.

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I know we might have a bit of time for a question or two. Can

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you tell us a little bit about the solicitation you just

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mentioned? I think people are excited to hear about that.

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☒Dr. Carter: Sure. This is an opportunity for institutions

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with their industry partners to develop consortia together.

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One idea came to me when we had

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people in the ATE community getting calls from across the

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United States -- they had awards that were

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supporting them in developing the hybrid and electric vehicle

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programs. What I heard from one of the principal investigators

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was, we are getting swamped with calls from other institutions

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that want to develop these programs. How can we all work

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together? We don't think if you get 10 to 15 proposals that say

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the same thing, that's going to go forward.

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That started me thinking about how we could support different

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types of consortia. This new track in the HTE

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solicitation will do -- in the ATE solicitation will do just

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that. The maximum budget could be 1.2

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million over a period of three years. If there are more than

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two institutions, the maximum budget could be up to \$3 million

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over three years. Hopefully we will get a lot of responses to

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that. One other thing to mention real

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quickly, the ATE program was reauthorized this year. It was

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bipartisan support across the board, and they plan

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to double the ATE budget. It is currently at \$75 million

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a year and the authorization -- that's not appropriation, but

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the authorization says the budget could go to \$150 million

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a year.

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All of you thinking whoa, industry education partnerships,

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oh, working together, now is a great time to think about

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crafting a proposal.

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☒Rachael: That's exciting, to hear that the budget could go up

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so much. That's great.

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A little scary, a little exciting. I wanted to ask you

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one more question -- since you were talking about people

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turning in a proposal and I suspect this

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question comes up a lot, what does NSF want to see in a

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proposal? If you could give people a little bit of

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information about that?

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☒Dr. Carter: It's a great question. I get that question a

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lot. I think really, the best

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response to that, it's not necessarily what NSF wants.

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We try to give you an idea of the scope of the program and its

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solicitation. But it's really the partnerships between

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industry and education, and what does industry need in their

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workforce and skilled technical workforce, and how could you

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breast craft a project that a panel of your peers, because NSF

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works on the merit review system, so your proposal will be

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reviewed by a panel of up to six people.

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Could be, will be people from a two-year institution, possibly a

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four year, maybe even high school, right? Industry.

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That set of people need to see the intellectual merit, first of

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all, in your proposal. As long as that review process goes

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well, then the program officer steps in to look at the

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proposals and kind of look at it across the portfolio that we

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have supported so far.

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☑Rachael: All right. Thank you so much, Celeste. It was great

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having you welcome us, and we are excited to get started with

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today's program. As moderator for this two day

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event, I have some very important people to think.

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And of course -- to thank, And of course, a few housekeeping

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notes.

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I want to thank cCORD, who plays a big role in putting the

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conference on, specifically Sheila Wilson, who somehow keeps

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all of us moving in the right direction. We also want to thank

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those who support our conference by purchasing institutional

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level registrations. You can see their names on the slide.

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We have our executive level supporters, our medallion level

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supporters, and our associate level supporters. Thank you to

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all of you, thank you so much. It's so important. Of course, we

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want to give a big thank you to our sponsors also.

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Our old bubble sponsor is --

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gold level sponsor is Biotivity, and our bronze level

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sponsors are BioMade, Carolina, --, and Innovate Bio.

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Don't forget the 80 plus on-demand sessions. You should

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have received the link and password on Monday to access

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those sessions, and if not, we will put that in the chat box.

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You can also contact Sheila Wilson, and she will be happy to

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resend the link to you all. These on-demand sessions are

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available for viewing for the next six months, and you should

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have received a note about the speakers and panels. You are

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welcome to turn on closed captioning if desired, and you

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may want to put your zoom settings in side-by-side mode.

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This will help a is -- help as you are viewing our sessions

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today. At this time, we will hear a pre-recorded session of

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our

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opening keynote, Mark Maybui ry from Stanley Black & Decker.

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He manages a team across the company's businesses and

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functions, and provides access to all elements of the global

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technology ecosystem. We look forward to hearing his

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presentation on the future of work are those -- for those who

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make the world.

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☒Mark: Thank you so much. It's a pleasure to be here

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today on behalf of the 60,000 members of Stanley Black and

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Decker. It's a pleasure to talk about the future of work for

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those who make the world, which is our purpose.

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Stanley Black & Decker is a 170

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eight-year-old institution that responded with a focus on

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providing improvements to individuals lives. Tremendous

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advances have been made in the world since he

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first established the Corporation, and interestingly,

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not only did he bring power to New Britain and start the

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beginnings of businesses like

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what we know today, for example, but also, he contributed as a

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member of society.

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A great individual who supported those who made the world,

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becoming New Britain's

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first mayor and bringing a real wave of electricity into his

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community. The illustration you see here

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in the middle, that was someone who at the time, a few years

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after Frederick Stanley established Stanley, hand tools

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and subsequently power tools, used literally his hands as an

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immigrant from Russia, built a business, 25 miles north of

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where I am talking to you from today, from the factory of the

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future.

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This is William Maybury, who was actually my grandfather. He

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immigrated. You can see his draft card there -- he came from

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Russia. Many Americans, he was able to

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literally leverage the tools to make a better future for himself

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and for others. Today, we maintain that tradition, that

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history.

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In 2020, with \$14.5 billion corporations supporting the

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tools that you know, when you walk into Home Depot or Lowe's.

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We make half a million different kinds of products sold in

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hundreds of companies around the world.

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We also do some things that you probably don't know us very well

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for.

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We have brands like Dewalt and craftsman, but also have a

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number of businesses that are quite interesting that help us

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understand the makers of the world. In the industrial

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business, nine out of every 10 cars and trucks, trucks on the

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road today are held together by robotically inserted fasteners.

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We also have an incredible security and health care

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business. For example, we protect a

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couple million mothers and

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young babies via our hugs IOT devices, so we make sure no

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babies or mothers get lost in the hospital. We also provide a

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very interesting set of sensors and capabilities to help people

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age in place.

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For example, we have one AI based sensor that is able to

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see 30 to 40 years ahead of -- 30 to 40 seconds ahead of time

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to see if an adult, an elderly adult is going to fall. That

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technology is part of our purpose. You can see in the

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upper

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left-hand side of the graphic, we aim to be a \$20 billion

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company with 20% margin by

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2025, by focusing on performance, being a world-class

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innovator and doing that in the socially responsible way. And

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yet the world is incredibly challenging. It's volatile,

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complex, and ambiguous, yet companies that

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can provide and vision for the future, and we will talk more

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about talent in just a moment, providing purpose, innovation,

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social responsibility. But can also provide unity of

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effort, unity of vision, and that includes leveraging all the

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potential talent that is available.

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We know from studies that a more diverse and inclusive

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organization, both at the top in terms of the board and executive

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leadership, but also through the organization on the

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bottom results in about 2.6% for after -- faster growth and

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4.6% higher share of return. Being diverse and inclusive ends

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up being economically beneficial as well. Also, in this complex

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world, you want to provide clarity, simplicity, and

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extraordinary customer experiences. Finally, if we have

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learned anything the past few years, we

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must be much more agile.

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We learned to do this, to achieve our purpose for those

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who make the world and to

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achieve that vision of our financial performance,

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innovation and social responsibility, we need to have

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leadership. We need to create clarity, inspire engagement, and

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grow and deliver. We will talk today about

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extreme innovation, which can enable extraordinary experiences

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by our employees, but also through our employees

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into our customers' lives we

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also focus on excellence in

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operation with everything enabled, which oftentimes are

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balancing things. Being able to change the mold,

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but also be very humble and disciplined to the court to make

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sure we deliver. That delivery has been pretty incredible.

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40 plus innovation awards since 2020.

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We have innovation and applications and technologies,

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lifestyle products such as electrified outdoor products.

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New technologies and digital solutions as well as safety,

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similar things that I mentioned previously. You noticed tens of

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thousands of new products being launched with a significant high

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vitality rate. How we do that is through our innovation

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ecosystem, which I would like to share with you a short video

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about so you can see it in action.

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☞>> Extreme innovation is in our DNA. From the invention of the

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cordless power drill to advanced aviation solutions, our legacy

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as defined by a history of innovation that spans nearly two

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centuries. To ensure our legacy lasts as

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long as the innovations that define it, Stanley Black &

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Decker's building an innovation

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culture across the company, across the world. It is purpose

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driven and fueled by a passion to recognize positive social

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impact. We empower our employees and

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customers' imagination to be brave and bold.

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We empower diverse employee resource groups to break down

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walls and build an environment where ideas thrive. Our

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innovation ecosystems shapes our global innovation culture.

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This introduced world first innovation, such as flexible

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batteries, it, it -- atomic and extreme power tools, and

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advanced security sensors through breakthrough innovation.

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It is revolutionizing our

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businesses and factories through artificial intelligence,

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advanced analytics, and industry 4.0.

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It invests in the most

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disruptive ventures and our tech stars advanced manufacturing

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accelerator in Hartford, and Stanley X-Unit in Silicon

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Valley. We foster innovation by everyone, everywhere.

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We democratize innovation, upscaling and re-skilling makers

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and innovators across the globe.

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We are linking the company internally and externally with

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universities, corporations, and venture capitalists across the

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globe to accelerate commercialization of

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innovations. Because we can go quickly, but together, we can go

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far.

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Stanley Black & Decker's ever evolving extreme innovation

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culture supports the innovators of tomorrow, because we offer

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those who make the world.

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-- are for those who make the world.

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Mark: It's a great honor to work for this corporation.

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But we are all empowered by people.

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Through the pandemic, we kept three key priorities in mind for

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those individuals. Number one, ensuring their health and

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safety. Both themselves as well as their families.

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We literally shipped products, masks and sanitization

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capabilities to our employee families, because we know we

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live in an ecosystem. Also ensuring business continuity,

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both operational and financial this and so we

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can maintain strong for our employees, but also to ensure we

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deliver to our customers within disruptive environments.

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Finally, doing our part to mitigate the spreading of

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copied -- COVID in our communities. We invested \$10

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billion, half of that to employees and their families, to

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ensure that they could weather the storm.

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We also added more in terms of the Covax initiative globally to

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support vaccination globally.

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It's important to recognize that this challenge we've all gone

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through in this redefinition of work in the future taught us a

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number of important lessons. One of them they taught us, we

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absolutely need to do certain things in person.

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You have to bend metal for an aircraft or a car, you have to

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do that in a factory and deliver materials through a supply

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chain. It's also the case that you

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could potentially think about doing new things in a hybrid

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fashion. As you can see, the 10

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observations of benefits of hybrid work, we realize through

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this process, including increased employee creativity

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and productivity -- I will give you some examples of that in a

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minute. Hyper personalized experience based on the needs of

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the individuals, focusing on the needs of the customers.

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When you are working virtually, you do not necessarily need to

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be in the office. If you can support that activity virtually.

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Certainly activities like design, finance, HR,

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engineering, most of that can be done from a distance. That can

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reduce the cost of real estate and unlock new

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funds using those monies to provide benefits employees need.

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You can also support hybrid

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teams and their engagement in new and innovative ways.

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I'm privileged to serve as the sponsor of the villages group,

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which we call instead of the disabilities group, because we

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find people have differences in cognitions actually provide us

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more neuro-diversity. They do certain things better than

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others. For example, those who are on the spectrum -- my

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granddaughter is on the spectrum, she is ahead of the

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kids in her class. Why? She pays very close attention to things

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that are going on around her. What we discover is whether it

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be in analytics or computer security or a variety of areas

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like design, individuals -- this is just one example, on

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the spectrum can have unique cognitive skills. If they happen

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to be physically disabled, if you are working virtually, they

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have access to a potential pool

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talent pool that you never tapped into.

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We also can look at work products that are based on

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evaluations, goal or outcomes as opposed to activity. A very

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important advancement for business. Focuses on time for

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wellness and his men chilly mental health, something we

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learned in the process. Reducing our carbon footprint, because

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guess what?

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People are not on the road as much as nature is coming back.

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By taking advantage of our increased attention to both

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hybrid, in person, and remote work, by providing better

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connectivity, we can strengthen alignment and accelerate

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motorization.

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Just because we are in a challenging situation does not

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mean we cannot provide a whole bunch of benefits. By the way,

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we did specifically in innovation. In three weeks

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because of joint attention and a collaboration

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with Ford and 3M, we took our batteries and were able to adapt

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them and their chargers and design in three weeks and build

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very quickly over the set of months 40,000 units of air

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per -- purifying respirators.

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We do engineering fast. We produced 30 engineering

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fasteners for ventilators, beds, field hospitals and so on.

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We were also able to work with one of our companies that we

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are accelerating, and took a company, dynamic green

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products, that was making eco-friendly lubricants and

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materials that would be substitutes for standard

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petroleum-based products. They were able to create a brand-new

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product that is now

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sold at Home Depot, basically hand sanitizer that exceeds

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federal requirements for sanitization. Finally, we

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mentioned we track a couple

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million babies and mothers per year. We took that tracking

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technology and applied it to our plants.

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At one plant in Britain, one of the manufacturing plants that I

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referenced from Stanley's original business, we were able

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to track individuals and provide proximity warning with visually

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acoustically -- both visually, acoustically, and vibratory Lee.

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-- vibrator ally.

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The point here is that the

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speed and skill was all enabled by this challenging situation we

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find ourselves in. When we talk about the future of work,

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clearly, one of the things that will drive the future of work is

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artificial intelligence, robotics, analytics.

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It is argued that by 2023, a

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2014 builder and dollar -- 214 billion dollar market.

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We focus on a couple of key areas, as you can see in the

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number one area here, analytics, automation, and the connected

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factory, enabling digital applications.

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We focus on working together with others in an ecosystem,

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working to give them a bunch of innovation leaders as well as

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plant champions and business leaders to enhance various

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technologies at scale within our plants.

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We prioritize the technologies for impact, and finally, we

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create an innovation marketplace.

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For example, just like on your iPhone you can add apps into the

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app store, we have an app store for Black & Decker. One thing we

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realized is we would have to work with a bunch

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of experts, so what we recognized, pulled together

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with the Association of advancement for artificial

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intelligence, we pulled together industries across academia and

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the government,

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from the National Science Foundation, the University of

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Virginia and others, and a variety of organizations. We

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defined a roadmap that would ultimately allow us to advance

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over the next 10 years artificial intelligence for

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manufacturers. You can see in this roadmap,

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the one on the left is about enhanced data and modeling, the

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one in the middle is about innovation and robotics, and

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finally, technologies at the ecosystem level, where humans

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are engaged with the machines. Such that they can be upscaled

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and rescaled and become more

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symbiotic in a safe and sustainable fashion, such that

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we can get the kinds of benefits that we would like to

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achieve from both human intelligence as well as coupled

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with machine intelligence. This has got to be done with a bunch

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of experts in collaboration, whether they be

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academia, industry, the government. We have actually

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published the roadmap. You can see the site above, all

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the papers and presentations were developed and actually used

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to accelerate a set of 10 companies that we accelerated

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during the pandemic.

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We were in this workshop in March 2020, and we created a

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team of companies that we could accelerate working partnership

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with tech stars in this area. I would like to bring you into

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our plants so we can see how artificial connectivity and

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analytics transform the factory into the future of work.

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♪

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📍>> In April 2019, Stanley Black and Decker opened a 23 thousand

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square-foot advanced manufacturing center of

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excellence called manufacturing

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4.0 in downtown Hartford, Connecticut.

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Everything is representative of what we can, will, and have

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deployed in our sites. The dangerous aspects of the

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job at our sites has been replaced by collaborative

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robots. Technology enables us to remove

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the elements of on safety and inconsistency that provides our

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work force with the opportunity to upscaled to a productive

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task. We have representations of

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these performing various activities, performing tasks

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that require some amount of dexterity along with pick and

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place applications. We also have robots on

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automatic conveyors, while seamlessly coexisting with

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people in the same environment.

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♪

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☞> Another key focus area has been connecting our factories

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for data streaming and analytics. Hybrid cloud and edge

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architecture enables us to view tactical insights driven by

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underlying AI models. The robustness of our approach

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enables data accessibility from the plants and their respective

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geographic regions, back to our center of excellence, aptly

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named the nerve center.

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Our work with cyber physical representations of aspects and

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processes runs the gamut. We have simulation models with

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value streams, processes and equipment. In general, data is

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streamed back to the twins to enable real-time visualization,

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as well as predicting likely outcomes, such as failure of

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operational performance and optimization opportunities.

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These are made available for implementation at our sites

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through the app store.

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As part of this effort, we continue to innovate the use of

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augmented reality for training programs. The center serves as

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an innovation, helping Hartford continue its evolution as a

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leading market of advanced manufacturing.

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♪ Mark: As my colleague explained, there are a number of

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key use cases that can transform the nature of work. First and

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foremost, you see the use of analytics.

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They call it the state of the machines, predictive analytics

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as well as prescriptive analytics that can tell us how

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to optimize those machines.

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A quick return on investment in these kinds of investments,

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connecting your plans in the beginning to analytics.

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Similarly, we have the dull, dirty, and dangerous tasks. We

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don't want to have people waste their time carrying physically

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heavy things around

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plants -- we produce \$1 -- one billion fasteners per year.

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Similarly, we are going to want

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to use cooperative robots to do things like take away the

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ergonomically competitive tasks from the worker so the worker

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can spend their time on tasks that required fine and are --

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that require finer dexterity and vision. We want to build these

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solutions and scale them globally.

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One of the things you might think about is, wait a minute,

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are these innovations going to replace jobs. The answer is yes.

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But as you can see right now, we are suffering trillions of

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dollars of loss because we have millions of jobs unfilled.

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Right now, we have thousands of open positions in our company.

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People want to work at our company, but we are growing to

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Whitley because we are meeting the need for higher talent Gil

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at the company. So there will be a need for

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more people in the future, not fewer people, but this data

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shows this -- if you look at personal computers, a study did

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at the end of 2017 said it destroyed certain jobs, like a

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typist, but created many more.

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A study looked over a longitudinal 10 year period and

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found that companies that did not invest reduced in -- by 20%.

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Those who invested them them --

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and them increase climate by 40%. So what have we done?

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Obviously, this is a partnership. We need government

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to help working with the business and higher education

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form. We have helped influence and guide the new programs that

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universities and colleges -- yes, trade schools, need to

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develop so we have a pipeline of workers coming into the

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workplace. We also have to make it so everyone believes, because

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it is true, that careers in manufacturing can be not only

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lucrative, but exciting and high tech.

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It's not the jobs of our forefathers. We need to collect

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the skills, the well-being, the leadership.

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We have several leadership programs where we have

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rotational assignments, where we focus people on a lean

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project -- lean project.

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We also work with some of the largest retail and commercial

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customers in skills and sales marketing. We have also

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introduced a vocational leadership program, which taps

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out folks coming out of high school into a development

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program where they

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can learn individual practices and be exposed to top

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executives, so they realize

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there are great

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positions there.

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For example, we need someone to maintain and design a robot and

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so on -- you can see our vision for the future, where we have

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visions of scaling and upscaling.

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We have a collaboration with the number of universities, and

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there are different levels of scaling.

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Operators working alongside on robots, and in those are

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reproduced to do higher-level work.

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Ultimately, a leadership where in the future, our leaders will

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have to be combined human-robot team leaders.

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We were talking about ratios of humans to robots. We have one

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human to two robots, four robots, because those

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individuals will need to be upscaled.

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As you can see, they analytics, industrial things, this will

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help create those higher skilled jobs for the future.

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Something else that is a viewpoint of the past is,

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everyone should go to university.

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That's where you can make a lot of money. But if you look at it

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and we have done some analysis, you

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can see that yes, get that.

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If you pursue and apprenticeship, one, it does not

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preclude you from getting anything, but more importantly,

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it allows you to get access to high paying jobs that provide a

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lot of value and a lot of wealth.

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In fact, we need to recheck our

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math in terms of, are these working opportunities not as

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preferable as we think they are?

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If the case that we have created through our Stanley X

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into baiter -- Stanley X innovator, it allows

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individuals to profess their skills, but also find

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opportunities for themselves and the trades. We have realized we

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want to upscaled people within our plans and another -- plants

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and in other plants.

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We have technology that was

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accelerated in an incubator, accelerator with tech stars and

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invented basically with the technology that uses computer

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vision straight from a simple cell phone, together with

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natural language processing and translation, and transported

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across the world.

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It reduces training time and improves performance. Rather

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than tell you about it, let's show you a short 8:00 of it in

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action.

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♪

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☞>> As technology continues to rapidly evolve, people are

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learning in new ways. Turning to more engaging resources online.

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As long-term employees move towards retirement, it's vital

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to capture their expertise, they are of the trade and know-how.

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Transferring their valuable skills to the next generation.

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This is the first AI solution for learning and training

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skilled trades.

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☞>> It captures their workflows via a mobile device. Using the

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latest AI technology,

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this captured data is extracted and ingested, turning complex

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workflows into easy to follow guidelines.

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☞>> Stephanie, show me the bleeder valve. Stephanie, speak

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Spanish.

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☞>>

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☞[speaking spanish]

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>> Employees can access training information anytime, anywhere,

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from the portal, learning tasks at their own place without

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disrupting other workers or playing operations.

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We are celebrating learning and increasing opportunity with

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everything they need for success.

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Mark: So one of the important things,

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in addition, just to make folks aware, some of the work we have

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done with the world economic forum, led by some work that

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Carl marches doing within our industry, it's taking

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assessments of these industry technologies, whether they be

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cooperative robots, technologies such as this and others, and

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bringing them to small and medium enterprises by

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helping them support and assessment by using some

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technologies that came out in Singapore, our methods came out

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of that country, and helping them understand where they could

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find value and also how they could upscale their own talent

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base so they could compete on a global scale.

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Importantly, as we already referenced, innovation is

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enabling and empowering by diversity and inclusion. We have

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been very, very fortunate to be recognized as

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an organization that gets extraordinary value out of our

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innovation, but also wrecking rises, according to the Boston

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consultancy group study, we

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actually can get, companies get 2.5% more growth and .6% higher

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shareholder return if they have a more diverse and inclusive

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workplace.

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In closing, as you have seen, we have a tremendous passion

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for those who make the world. A tremendous passion for the

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work base of the future, which will be human centered.

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So that means, you are going to be at the center and your

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children will be at the center, your grandchildren will continue

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to be. One thing I would like to close

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with is lessons I have learned about future-proofing yourself.

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If you are going to be at the center and we all are going to

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be at the center, we want to be relevant.

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First, if we look at the great discoveries in history,

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hydrodynamics by da Vinci, it was inspired by close

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observation of rivers. Flight machines were inspired by the

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properties of birds. Finally, if we look at great

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arts, my understanding of the human -- by understanding of

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human biology.

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Edison solved everyday problems with my favorite invention, the

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invention that helps you invent the laboratory.

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When oil is like to remind folks is if something irritates

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you, more than a pandemic, a massive disruption, those are

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opportunities. Look for ways that you can

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convert that human pain into a great ability to serve

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humankind. Think outside of the box. When you think about

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Tesla's ideas of wireless electricity

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and man-made lightning, observing it in nature and

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thinking about something completely radical. Ford, who

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came here to see how

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we have done lecturing, was able to transform the assembly line.

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He doubled the salaries working from two dollars an hour to five

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dollars an hour, which was unheard of at the time, but he

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had to address the economic divide at this time and, it

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turned out he not only skilled his workers, made them more

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valuable, but turned them into consumers and virtually enhanced

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of the market. The four I was talking about

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about how -- we want to experiment with purpose.

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If we take a look at federal government, which invested in

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flight, all the federally funded individuals did not actually

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create flight.

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It was a couple of brothers in Kitty Hawk, who were committed

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to the scientific method and focused on an outcome and

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achievement, was created the flying -- and created the flying

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machine.

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Leonardo, Franklin, Edison, all of them were Renaissance people

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and were inspired by art, literature, were inspired by

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nature, people. Those interdisciplinary intersections

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and the diversity that, in the history of

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humankind, now have planetary global access, we are to

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leverage that diversity and put it do good work.

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My final message to all of you would be, back to my favorite

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proverb you heard in one of the videos, the African proverb that

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says "if you want to go fast, go alone.

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But if you want to go far, go together." We are Stanley Black

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& Decker, for those who make the world. We are excited about the

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future and know it will be people centered.

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We know you will be important too. With that, thank you.

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☒Mike: I really appreciate your insights and the close look we

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got inside Stanley Black & Decker. Thank you. I have the

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opportunity to ask you a few questions, if I could.

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☒Mark: Please. Mike:

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Many of in technical education, preparing people going into

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automation, I.T. skills, that range of things.

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If you had to put on your crystal ball and live a couple

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of years out, what should we be

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thinking about doing in the future?

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Mark: I think we should be building learning machines, both

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human and digital.

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I happen to be a 40 year

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veteran of artificial intelligence, and it has

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extraordinarily impressed me, the progress we have had, but it

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also depresses me, because some wisely misuse -- sometimes we

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misuse. I want to upscale the talent so

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it Unser stands the scientific method. As you saw and some of

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the videos, digital twins will

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enable us, whether it be humans or machines or world

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environments, this will all be very important for us to

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understand in a deeper way the mechanisms, the processes.

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I think there will be a need to understand digital. Clearly,

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there will be new areas, a new materials and

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cereals signs that we knew kinds of intelligence that RAV more --

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that are may be more

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positively base d. For example, when we think of quantum

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technology, the physics

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space, it is a technology that river than things at the

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molecular level, because like super precision, which allows

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us to model chemistry and biology. The environment.

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The worker of the future is going to be empowered in a way,

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for example, if you think about before cars, it's hard to

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unimagined things.

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But you have to look back, the further forward you look to the

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future, the her back -- the further back you should look at

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the same time. Downtown Detroit, when the first cars appeared and

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it was horses for 10 years, then it

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was all automobiles, we needed people to repair the

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automobiles, gasoline, driving schools -- everything was

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transformed. It's very difficult for humans to is the page what a

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world might be like in the future.

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Given that, critical skills are -- ability.

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It's a long-winded answer to your question, but a great

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question. I think it's ultimately up to

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us as leaders and as educators to create a workforce that will

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be continually learning .

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☒Mike: If I am at a two-year college, maybe I should put in a

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course like intra-artificial intelligence? Should I -- intro

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to artificial intelligence? Should I put that in?

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☒Mark: I would even say it is going to be at the point where

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it is at the high school level. We will need people to have

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digital and data analytics competency.

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10, 20, 30 years ago, we said everyone needs to understand how

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to use a computer. We don't really say that today, because

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my three-year-old granddaughter has a computer in her hand.

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She is surfing and searching -- how is that possible? She grew

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up in a digital world.

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We have built interfaces that allow humans, they are more

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social interfaces and huge, main interfaces. That will become

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more and more the case in the future -- you

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talk to your car, you talk to your refrigerator -- we are

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already talking to RTV's.

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-- two hour TV's -- to our TV's. We need to teach those skills so

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people can exploit that work. You need to be able to search

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well on the Internet, but you also have to learn how to call

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out the bad stuff, the stuff that is not relevant or just

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misinformation. Those are the important skills in the future.

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Mark: One of the things you stressed

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today was upscaling of employees. Many community

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colleges offer collaborative education with our industry

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partners to help them, but you painted an interesting picture.

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Remember the diagram where you had the upper writer come in.

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As they moved down the curve, there were gradually taking on

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more responsibilities and so on. Now, where would you like a new

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hire to come in on that curve?

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Say they come in with an Associates degree in

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manufacturing. Where would they come in along that curve?

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☞> If they come in with an Associates degree and have had

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some exposure, I have never seen a -- before.

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They are already going to be at level two or three.

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They are not going to be level four, but they have an

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opportunity to accelerate

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themselves to a two or, if they are an extraordinary student and

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at night they are tinkering

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with and modifying code and so on, they could be a programmer.

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That's the wonderful thing about our world.

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You are limited because of the access to online information to

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online training. Everything from con Academy to teachers at your

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community

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college to course -- Cors ero work.

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For community colleges, I love the accessibility and the

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affordability of them, and also the relevance of them. These are

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strengths that are unique to that segment of the

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education system, that again, if the great workers are going

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to be this new, powerful source

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of talent and value, community colleges are at a beautiful

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position to ride that kind of skill and education. This is one

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of my conceits, you know?

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I have a PhD and I'm a professional student, right? One

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thing I did not realize, I was educated in Germany.

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When I was visiting the Eurocopter plant, I said, I

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don't understand how you could send your kids, force them when

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they are 14, 15 years old to choose to go and be an

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apprentice. He said, what did you mean? Why would that be a

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bad thing?

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They are committed and stuck -- new -- stuck.

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One, you assume that's bad. This is a lucrative career.

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Two, 60% of them go back to university and get a degree.

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I've had this completely wrong model of lifelong learning -- I

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had not yet appreciated that there was a continuous

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opportunity. Do your point, they can come in wherever they can

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advance themselves, because it will be a world where you are

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competence -- where your competence and performance the

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sting wishes your outcome.

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As a friend many, many years ago in the Air Force told me, he

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said, your altitude is ultimately determined by your

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attitude.

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☒Mike: That's good. Mark, I read an article by you,

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where you said "we need to rethink this singular focus on

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four year education." That pretty much sounds like what you

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are talking about, like there is a different set of opportunities

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here.

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☒Mark: There is. I think we do our children a disservice if we

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don't show them the full spectrum of opportunities.

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That's why I put that economic analysis.

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Go to a four-year college, a community college with a

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two-year degree, go to trè school -- trade school.

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I literally can remember my wonderful parents committed to

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education, when I was in high will, saying it is a

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million-dollar differential. You make more money.

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Yeah, but you have to put in \$1 million too because education

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has gotten so expensive. In the end, it is not clear that it is

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the best choice. Individuals have to make their own choices.

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The most important thing is to

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dive in, to get skills, and to make yourself valuable in these

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areas. I do think we are going to have

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to continuously evolve our curriculum so we realize. We may

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realize, as we have today -- it's interesting, some

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people are saying, I am not a computer programmer, then you

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look at the industry and realize 50% of people in the computer

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industry don't program. They are customer service, they are doing

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program management, they are doing all kinds of supply chain

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negotiations, contracts, finance, etc.

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Again, we have to question our assumptions because the world

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changes so much that we need to continuously reform our minds.

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☒Mike: It seems to me that that is the expectation at Stanley

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Black & Decker. That is an overt expectation. Is that true?

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Mark: It is absolutely true.

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Our CEO and president articulates that -- our CEO,

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our president, and CFO articulates that come and invest

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in that education. You saw that in the leadership programs we

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have. A key aspect of all of those is

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you have to continuously work.

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It is a reality of the world where scientific knowledge and

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the world itself is evolving so rapidly, probably unprecedented.

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You look at the number of

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publications, and importantly, foundational technologies that

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accelerate change. If you look at artificial intelligence, they

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accelerate change because instead of just

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looking at -- Tesla looking at one car, they have a million

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cars.

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The CTO of Tesla said two weeks ago that we are removing

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lighters because we believe vision is

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enhanced enough -- I personally like them to my car, I'm not

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about to take it out.

01:10:13.000 --> 01:10:19.000

But his view is it's good enough. What does that tell you?

01:10:19.000 --> 01:10:24.000

It tells you we are getting to

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a stage where there is so much data can and you think about

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revolutions in medicine that would be possible with my

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genome and your genome, 3 billion pieces of data in our

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genomes are now available.

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It is an incredible enabler for new medicines, for people

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talking about longer life because of that.

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If you think of Stanley, the typical age was mainly -- I

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think it was 35 years or something. Age expectancy in the

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1800s was low.

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It is not upwards of 75, 80 years, completely doubled.

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I think things will be very different in the future because

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of -- will change even faster because of some of the

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evolutions.

01:11:21.000 --> 01:11:26.000

☒Mike: Mark, thank you again on behalf of the high-tech

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conference. Thank you again.

01:11:32.000 --> 01:11:37.000

☒Mark: thank you, Mike. Pleasure to be here commend the best

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wishes to you and others as well.

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☒Rachael: Thanks so much to Mark for that wonderful keynote. We

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will take a short break and

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we will be back at 1:10 to hear from industry leaders featured

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on our industry insights, new technologies, new opportunities

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panel. See you all in a few minutes. Bye.

01:19:22.000 --> 01:19:27.000

Welcome back, everybody. We are so excited to hear from

01:19:27.000 --> 01:19:28.000

my first panel on industry insights, new technologies, new

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opportunities it is my great pleasure to turn things over to

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Dr. Mary Slowinski, as she introduces our first panel.

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☒Mary: thank you, Rachael. Welcome, everyone fe dead been

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a pleasure to work with and coordinate these panels and

01:19:45.000 --> 01:19:47.000

select panel topics and recruit our wonderful participants.

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I would like to thank the live session subcommittee members who

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came from across our community to help with this work it onto

01:19:53.000 --> 01:19:58.000

our first panel. It is my pleasure to introduce

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our moderator, Dr. Mary Russell, training specialist for quick

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medical.

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Dr. Russell, good morning, or good afternoon.

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Dr. Russell: Thank you for the introduction. I am honored to be

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part of a panel that has three people

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representing different industries who are willing and

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excited to share with us information on their particular

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industries and what we can do to prepare technicians who will

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have to engage in the human machine interactions that will

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come with the emerging technologies. But I would like

01:20:37.000 --> 01:20:42.000

to do first is introduce all of them by just giving their name

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and the company they work with and I

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will ask each of our panelists to share information about

01:20:52.000 --> 01:20:55.000

themselves and their industries after the three have been

01:20:55.000 --> 01:20:59.000

introduced. To begin with, I would like to introduce you to

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Lisa Masciantonio.

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Lisa comes to us from Advanced Robotics for many pattern. Hi,

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Lisa.

01:21:10.000 --> 01:21:15.000

☒Lisa: HI, Mary. Thanks for having me.

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☒Dr. Russell:

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next we have Geoff Foster with Core technology molding

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conversion. Welcome, Geoff.

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Thirdly, we have Dustin Heath, and SuDustin is representing

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vigilance and persistence. Hi, Dustin, how are you doing today?

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☒Dustin: I'm doing great, thank you for doing this.

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☒Dr. Russell: Lisa, can you tell me about yourself and the

01:21:46.000 --> 01:21:49.000

company and industry you represent?

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☒Lisa: Absolutely, thank you. My name is Lisa Masciantonio,

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and I'm the chief workforce officer for the advanced

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robotics for manufacturing Institute.

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The ARM Institute is one of 60 national institutes that were

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set up over the years by the U. S. government to focus on

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advancing research and technology, establishing and

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growing manufacturing ecosystems, and securing human

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capital. Across these institutes, we are

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all set up as a public-private partnership, and each of us has

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a distinct technology field on which we focus. But we all have

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a common goal during the future of U.S.

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manufacturing through things like innovation and

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collaboration.

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The ARM Institute's focus is on robotics and automation. We

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recounted out of Carnegie Mellon in 2017 -- we were

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founded out of Carnegie Mellon in 2017, and we leverage our

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robust and diverse ecosystem of over 300 member organizations

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that are set up across the country, and it is made up of

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industry, academe, and government. Our key focus across

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those

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experts is to make robotics,, autonomy, and artificial

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intelligence more accessible to U.S. manufacturers from the

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large, medium, and small sizes. We are focused on training and

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empowering the manufacturing workforce as well as elevating

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the national security and resilience.

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Dr. Russell: Thank you, Lisa. Dustin, what can you share

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about yourself and vigilant cyber systems?

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Dustin: I'm the chief operating officer

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of a Cybersecurity firm called Vigilant cyber systems. We

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focus primarily on DOD Cybersecurity contract and are

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working closely with the Air Force and Navy to help secure

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their critical operational technology assets.

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The key distinction between information technology and

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operational technology is that we're not really focused on the

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computers and the laptops, but more of the industrial control

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systems, embedded systems, weapons systems, aircraft,

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things like you have probably seen in the news recently, oil,

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energy sector, midstream, upstream, downstream energy

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sector assets, maritime assets, cruise ships, things like that.

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Cybersecurity, as we bring this

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Internet of things online, the Cybersecurity of the connected

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world is becoming more and more of a target for hackers.

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We specialize in that area, and it is a great place to recruit,

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and it is an awesome place for especially community college

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students to look at, because there is a massive, massive

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workforce shortage coming in this area, and I'm looking

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forward to the panel to talk more about that.

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☞Dr. Russell: thank you very much. Geoff, would you share

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with us something about yourself and

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CORE technology molding Corporation, please?

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☞[NO AUDIO]

01:25:23.000 --> 01:25:28.000

Dr. Russell: So what we will do is we will continue with our

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first questions for the panelists, that is OK with you.

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Is it OK with you, Dustin and Lisa? So the first question we

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want you to answer for us is we want for you to share and

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describe one emerging piece of technology that you are

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engaging or your company is engaging to do the work. We will

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start with you, Dustin.

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☞Dustin: OK, great. There is a lot of rapidly

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changing things happening in the world of operational technology,

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Cybersecurity. A couple of those things as it

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pertains to education is the NSA centers for academic excellence

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program, as we look to partner with different schools and help

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recruit

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talent, we're using that guide basically to make sure that

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schools are teaching students the right things. That is one

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thing to look at. It is not really a piece of

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technology, per se, but it is definitely a tool that is being

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used by academia that we are excited to follow.

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What follows without is the ATTCK framework, which is being

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added to all the time and they recently released an industrial

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control systems-focused framework that is being used to

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help identify threats and help identify solutions around

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securing these industrial control systems and embedded

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systems. Those are two things that would be worth checking out

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if you are an educator or involved in Cybersecurity

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education that are some tools that are currently being

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developed that are on the cutting-edge, and industry is

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heavily responding to and using to help kind of validate and

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make sure we are on the same page with academia in terms of

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skills and abilities that are needed and putting those into

01:27:20.000 --> 01:27:21.000

the workforce.

01:27:21.000 --> 01:27:23.000

Dr. Russell: thank you, Dustin. Lisa, would you share something

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with us about your emerging technology?

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Lisa: Sure. From the robotics standpoint, you can imagine the

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technologies are quite robust, I could take up the whole hour

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talking about the technological changes. The purposes of our

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audience I think it is more useful for me

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to talk about the workforce side, and as everybody knows

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with the technologies changing

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so quickly, it's outpacing the way the students are learning

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about those technologies, and that has been a huge problem in

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having the mismatch in skills in creating this large skills gap,

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particularly in the world of manufacturing.

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As a national Institute, we have been focused on trying to

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support all of the points about ecosystem, whether it be the

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employees, students, training programs, or the employers.

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We recently released a pretty

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sophisticated tool called roboticscareer.org, the only

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free national resource that gives insight to over 11,000

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training programs focused on robotic technician needs, and

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it evaluates those training programs. It also helps to

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outline the standard robotics career pathways, which I know we

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will talk about through the course of the next hour, which

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is really helpful because people getting into the workforce as

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robotic technicians, they don't know which way to go. This helps

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them to decipher what that pathway might look

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like, and identifies specific competencies that are needed for

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those careers and ultimately makes the training

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easily accessible through search functionalities. I know we have

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got a lot of people online today who are from robotics training

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programs, so I want to reinforce that this is a free resource. If

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you wanted to get your training program into it, it's

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very simple, up in the upper right-hand corner, it will walk

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you through what to do. We would love to have your stuff out

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there getting visibility.

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I think you are muted, Mary.

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Dr. Russell: Thank you, Lisa. What we would like to do now is

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ask you to share with us what you do as it pertains to

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upskilling and maybe even re-skilling technicians having

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to engage or interface with the technologies. Lisa, will you

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continue?

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Lisa: Sure, absolutely.

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I think part of the challenge is we as a society are typically

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reactive whenever there is a big problem out

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there, and that skills gap I mentioned earlier is probably

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the most disruptive to the workforce, because people

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aren't able to keep up with those changes and not knowing

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how to get that narrowing.

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And so as a country, I would recommend that we start to focus

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on what we should be expecting in the next 10 years and

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anticipate what the workforce of the future might look like, so

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that we can start to narrow that skills gap currently and make

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sure that it doesn't widen later on. And so there needs to be

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greater investment in getting the training ready for the

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future, identifying those gaps that are currently existing, and

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finding ways to scale that across the country, instead of

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everybody investing in the same

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kind of workforce training, see how we might be able to leverage

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those dollars. Invest in the existing workforce to get them

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upskilled, but not just for tomorrow, but for that 10 years.

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And invest in succession planning. There are statistics

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saying that currently there are 10,000 baby boomers who are

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retiring each day, and if you start to

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look at with the millennials tending towards less than 7% of

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them interested in getting into manufacturing, how can we start

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to attract larger and more diverse groups of workers into

01:31:59.000 --> 01:32:01.000

these different career pathways?

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☑Dr. Russell: OK, thank you, Lisa. Geoff, would you -- Geoff:

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can you hear me?

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☑Dr. Russell: yes, I can, thank you, Geoff. Would you share with

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us in emergency technology that you are using at your place of

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workforce, with your workforce, and also share with us about the

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up skilling were doing?

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☑Geoff: Sure. We are a plastic injection molding company where

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we do molding for companies like BMW manufacturing.

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What is new is we are doing two shot, which is the ability to

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inject two different materials

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into the same mold paste, and it is a very common practice in

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Europe and now in the United States. By taking on this new

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technology, we are able to get much more business from large

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automotive companies as well as doing price for Merck and

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Pfizer.

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What we are doing to upscale our students we have employees that

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come through the community college and through a four-year

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college as well, keeping that advanced manufacturing skills

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like robotics--teaching them advanced manufacturing skills

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like robotics, hydraulics.

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It is helpful for the new students that are in school and

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they work in the tool shop and we have an appendage of program

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as well. Those are the areas helping us be competitive at get

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ready for the next wave of those who are retiring we can bring in

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young students who want to be in advanced manufacturing.

01:33:32.000 --> 01:33:38.000

☒Dr. Russell: thank you, Geoff. Dustin, share with us what you

01:33:38.000 --> 01:33:43.000

are doing to upskill.

01:33:43.000 --> 01:33:56.000

☒Dustin: Yes, thanks. We use a variety of different

01:33:56.000 --> 01:34:01.000

things to bring people up to speed and to get them ready. One

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of the things that is available to everybody, and you don't need

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to be a part of a degree program to do it, is

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what is called a capture-the-flag environment. We do these

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internally can we go to competitions. If you just google

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"Cybersecurity capture the flag, " you can find a ton about

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these, if you think of the childhood

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game, it is a capture-the-flag environment where the flag is

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set up somewhere on the information system, and the

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flag is a digital flight that the students have to go and find

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and secure. You might have students defending the flag, you

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might have students trying to get the, flag, you might have

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all the students trying to find the flag. But it teaches

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students how to navigate through different networks, it gets

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unfamiliar familiar with the different operating systems and

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tools they are using in the industry. One of the things we

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do to teach and upscale people right

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away we get them to use Lenox. In the Cybersecurity and just

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become a lot of not only target systems will be running on

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Linux, but a lot of the tools will be developed in terms of

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the hacker side, the hacker side in Linux as well.

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And then we also take our people to the conferences.

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There's a ton of local conferences around at the state

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level that are Cybersecurity conferences that are great place

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to learn about the new emerging skills, and then there are

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national ones, the big ones in Cybersecurity are Devcon and

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blackout, which happened in Las Vegas every fall. We are sending

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a group out there this year. It is a great place to capture

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the flag at Devcon and encourages students if they are

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passionate to learn more, because they can interact with

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customers. The customers using the Cybersecurity services go.

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All of the major players, major companies in the industry go.

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It is a great place to get some business cards and network and

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open your exposure. Those are some ways we open our

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Junior-level employees' eyes to the possibilities and get them

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familiar with the skills needed to continue.

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Dr. Russell: I have a question for all three of you. I would

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like you to think about your up skilling process and share what

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is one of the biggest challenges that you have faced for you know

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that the learners face as it pertains to upskilling.

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Dustin, we will continue with you.

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☑Dustin: OK, great, yeah. I think the biggest challenge

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for us -- we always say that Cybersecurity is one third art,

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that you cannot teach -- either you are an artist or you are

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not. It is one third experience.

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And then it is one third education and certifications.

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We do our best to get everybody the education and certifications

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they need. You can just check the box on those. Either you

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have certifications or you don't. We use a number of

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different professional certifications to vet our guys.

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Experience is experience, you just go out and do it. It

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doesn't mean you need to be old to have experience.

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You can start in high school doing capture-the-flags and

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different events. You can come in with 10 different events

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experience. That is a lot more than people coming out with

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four-year degrees have done. It is not necessarily 20 years,

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but it is event-based experience. The art is like any

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artist. You only really know whether you have the art piece

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by doing it. What we look for there -- this is probably the

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hardest thing for us to identify and the most meaningful thing.

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Do they love it? Are they passionate about it? Do they do

01:38:02.000 --> 01:38:04.000

it on the weekends? In the evenings?

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Do your eyes light up when they talk about what they're doing

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and the flag they found and how they found it? Either you have

01:38:07.000 --> 01:38:08.000

it or you don't. You are passionate about it or you

01:38:08.000 --> 01:38:10.000

aren't. I would encourage everybody to

01:38:10.000 --> 01:38:13.000

look for that, to find that, in whatever industry. Maybe it is

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robotics. It is something that lights a fire in your eyes.

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That is -- we quantify internally. That is about one

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third of it. Usually it is the largest indicator for how

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successful they will be in the field.

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The biggest challenge we have is to find the people that have the

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artful excitement, exuberance that is going to propel them and

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motivate them to be excellent.

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Dr. Russell: Someone who maybe is missing that third, what is

01:39:07.000 --> 01:39:12.000

your process for counseling them?

01:39:12.000 --> 01:39:14.000

Do you allow them to continue, do you have a process in place

01:39:14.000 --> 01:39:19.000

where you direct them in another direction?

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Dustin: It is usually not a black-and-white binary

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condition. A lot of times it is a lot of

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counseling throughout. What about the last assignment

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or the last event? What aspects of it did you appreciate?

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Then you can coach them in, because there is thousands of

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different jobs and roles in the industry. You don't want to be

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the

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cutting edge tester for industrial control systems

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climbing through oil wells and pipelines, being on cruise

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ships. It doesn't mean you might not

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enjoy being a network analyst as you don't want to be outside.

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You want to be inside monitoring network traffic and being aware

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of the latest threats against certain network traffic. That is

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a totally different skill set than the personnel in the field

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that needs to know how to work with PLCs.

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We try to home them in and get them to the place they are going

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to be, but eventually we try to give them -- the

01:40:17.000 --> 01:40:19.000

employees as much freedom as we can to let them know that we

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believe in you no matter what. We want you to find that spark.

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What I see more often than not is people give up on that spark.

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That is what we don't want to have happen.

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Maybe they thing is somewhere else, but don't just take a job

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for a paycheck and grind it out. Find the thing you will be

01:40:41.000 --> 01:40:46.000

excellent at pit have one life to live good be excellent at it.

01:40:46.000 --> 01:40:59.000

We have that soft back-and-forth with the employee.

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It is always ended up working out one way or the other. I

01:41:02.000 --> 01:41:08.000

think a lot of it is about the journey. Encourage the journey.

01:41:08.000 --> 01:41:10.000

Dr. Russell: thank you. Geoff, would you share what challenges

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you have run into?

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Geoff, are you with us? Can you hear me?

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So, Lisa, while we are waiting on Geoff, could you share some

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challenges with us?

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☑Lisa: Absolutely. When you look at the

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challenges, it is important to stay on top of the challenges

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you are experiencing.

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When you look at the world of industry and how the

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manufacturers are trying to upscale their employees and at

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the same time keeping productivity, we are finding out

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that U.S. education systems is

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insufficient for putting people into those industry 4.0 careers

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or moving people through the different career pathways. We

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are experiencing the negative perceptions of

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robotics and manufacturing,

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robotics are taking our jobs, and there is still negative

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perceptions of manufacturing in general. Most of our parents and

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grandparents grew up and a time that manufacturing was so stable

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in the United States.

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You have to go to four-year schools, and manufacturing

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didn't serve our family well.

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The large manufacturers are also finding that they have got

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limited resources to prepare. I cannot necessarily pay for

01:43:02.000 --> 01:43:07.000
you to go to classes or take you off the line because it is going

01:43:07.000 --> 01:43:09.000
to affect my productivity. Those limited resources cause a huge

01:43:09.000 --> 01:43:19.000
challenge. The big problem with the

01:43:19.000 --> 01:43:23.000
manufacturing workforce, they are not prepared to continually

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reskill. They don't have the lifelong learning mindset, where

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with things changing so quickly, they have got to get into that

01:43:29.000 --> 01:43:36.000
mindset. We find there is very little

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coordination between initiatives.

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For example, we have heard from community colleges. By the time

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I find out there is a need and I should create a course, I have

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got to get the funding and the approval and create the course

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and find a teacher and advertise it and get students commend the

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two years have gone by.

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That whole mindset has changed from and yet they are behind the

01:44:10.000 --> 01:44:15.000

learning curve.

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If you're able to support the training initiatives so things

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can be scaled nationally, and then the mantra of the day that

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-- data I keep talking about is the fact that the technologies

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are outpacing the skills relevance leading to the skills

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gap.

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Trying to ensure that we are not only supporting new training

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programs or the manufacturers or the students

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to support them all in a fair and balanced way so the

01:44:41.000 --> 01:44:46.000

challenge can be mitigated knowing that each of the

01:44:46.000 --> 01:44:49.000

sectors.

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☞Dr. Russell: thank you, Lisa. Geoff had to be called away for

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work issues, so I wanted to let the audience know that. If he

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can rejoin us, we will bring him back in. I would like to turn to

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Mike and see if there are any questions for the panelists.

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☞Mike: Mary, thank you. We do have questions. Let me start

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with Lisa.

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We were looking at roboticscareers.org, we put a

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link in the chat, and there is nothing that says you can list

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your program there--there is a thing that says you can list

01:45:22.000 --> 01:45:27.000

your program there are might have your program indoors.

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Having the industry looking at new program -- do you come out

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and audit a program? We are afraid of that, Lisa.

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☺[LAUGHTER]

01:45:35.000 --> 01:45:36.000

☺how does work? Lisa: Just listing your program

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is very easy.

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What we have in there is a very robust survey where we make sure

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that the programs listed

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are very relevant to a sert of competencies in the robotic

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technician career field. If a program deems that they

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are best in breed, if you will, we have an opportunity for them

01:46:02.000 --> 01:46:17.000

to apply. What that means is there is a

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set of metrics that we would say do you meet the best of the best

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standards. If they do in the application,

01:46:24.000 --> 01:46:29.000

we invite them to do a full-on audit. It takes a number of

01:46:29.000 --> 01:46:34.000
back-and-forths. Some of them we've been able to do within a

01:46:34.000 --> 01:46:38.000
week. Sometimes people cannot get the

01:46:38.000 --> 01:46:42.000
data because of real-life things .

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It is a virtual audit. One of the good things about doing

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these in the pandemic is we realize it is actually able

01:46:53.000 --> 01:46:55.000
to be evaluated and there is major and minor criteria. If you

01:46:55.000 --> 01:46:56.000
meet certain thresholds, you get a bad.

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It is an actual badge on the website, as well as something

01:47:01.000 --> 01:47:07.000
you can use in your marketing collateral, something you can

01:47:07.000 --> 01:47:10.000
use on the website. It lasts for three years.

01:47:10.000 --> 01:47:31.000
Upon each year, we ask you to let us know any data Kemeny

01:47:31.000 --> 01:47:35.000
program changes -- any data, any program changes.

01:47:35.000 --> 01:47:40.000
We would do another less robust audit.

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☒Mike: It gives an opportunity to give your program genuine

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visibility. You have lots of industry people behind us.

01:47:47.000 --> 01:47:49.000
☒Lisa: We do.

01:47:49.000 --> 01:47:53.000
It is helpful for organizations. Let's say you are at a

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particular Air Force Base and you want to upscale people into

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different parts of your career pathways, you want to see what

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is available close by, but the second is it is -- is it better

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than the rest. Mike: Thanks for that resource. I want to turn to

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Dustin. If you wouldn't mind coming on

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for a second soon as you said "cybersecurity competitions,"

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the chaplet up. -- cat li-- chat lit up. We have a related

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question. In the cyber world, how do you

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deal with trainees who come in under H-1B visa regulations? Is

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that a restriction on the cyber side for the reasons you might

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guess?

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☒Dustin:

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Yeah, so for us, as a DO D contractor, we are limited in

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our ability to interact with

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foreign nationals, due security clearances. Most things in the

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DOD that touched cyber are classified.

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It is a blanket -- as soon as something has a cyber element to

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it , it becomes classified. The reason for that is -- I saw

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a little bit of chatter in the chat as well. It is important

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for people to understand why cyber is so sensitive.

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Stuxnet is a great example. Stuxnet is a tool that was

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deployed on the Iranian centrifuges to restore them.

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Ended up setting back the Iranian nuclear program quite a

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bit. It is an advanced tool. Once it was released, now it is

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out. The source code could be

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gathered by private companies after being shared online. As

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opposed to a missile or a bomb or some other type of weapon,

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when he fired once, it is used up. When you fire a cyber

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weapon, it is not used up. Your enemies get the weapon and

01:49:55.000 --> 01:50:00.000

they can use it against you. Proliferation in cyber is a very

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big deal. That is why the U.S.

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government takes it very seriously and buttons everything

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up quite a bit. There are a lot of restrictions

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and classification restrictions around anything coming out of

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the DOD. On the commercial side, it is pretty different.

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The community on the commercial side is much more open.

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Companies still have incentive to keep things close to the

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chest, but from the Cybersecurity professional side,

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may have seen much less regulation and restriction with

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people concerning ITAR. I would say that would be a good place

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to work if you are a foreign national coming in on a visa.

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And also it is an interesting

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kind of tension because in Cybersecurity, the more anybody

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can know, the safer everybody can be bit if there is zero

01:51:03.000 --> 01:51:04.000

day, it is a unique -- something is broken in a very unique way

01:51:04.000 --> 01:51:09.000

that could be taken advantage of. If Microsoft put out a patch

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and for some reason there was a loophole in the past that cause

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you to get into the operating system and the engineers didn't

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find it, but the bad guys did that would be considered a zero

01:51:21.000 --> 01:51:26.000

day, and you use that to take advantage and a lot of the

01:51:26.000 --> 01:51:31.000

exploits are taking advantage of zero days.

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The quicker you can identify a zero day and share about it, the

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better.

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With the classification commit is counterintuitive to good

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cyber hygiene. You want everybody to know so

01:51:46.000 --> 01:51:48.000

they can fix the things best as possible so they can compromise

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very many machines. On the flipside if you share

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everything, everybody knows everything.

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They can use the information to attack other people. That is the

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tension there.

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☒Mike: One follow-up on that -- what about apprenticeships?

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Our company is reluctant to are companies reluctant to add a

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penmanship's? -- are companies reluctant to add

01:52:09.000 --> 01:52:14.000

apprenticeships?

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☒Dustin: On the DOD site, absolutely. On the commercial

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side, not as much. As long as your technical tops

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are good, they offer internships . Those are happening on the DOD

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site is welded typically there only for U.S. citizens.

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Often times for us, for instance, we put our interns in

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for clearances. Right now the Clements backlog

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is about -- right now the clearance backlog is about 500

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days from when you first put the package into when the clearance

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would be approved. That is a huge workforce risk.

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If you are saying you don't put these people in until they

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graduate, now they have 500 days they have to wait if it is

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a security clearance-related job we try to get that around -- we

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try to get around that a little bit by putting them in between

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their junior and senior year, or in the case of a two-year

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school, between freshman and sophomore year, where they have

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a lawyer where it could percolate through the

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system because it is 500 days lag.

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☐Mike: Good, thanks. Now we will put our moderator on the spot

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ash that will be fun. Mary, going to ask you a question.

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At Cook medical, big company, people who come in, what

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degrees do you look for? If you look to your profile of new

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hires, what would it look like in the biotechnology-medical

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area?

01:53:59.000 --> 01:54:04.000

Dr. Russell: It would depend on the department they are applying

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for. There are some departments

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where certifications are required and somewhere they are

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not required. We are facing a challenge as it pertains to

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upscaling. It just depends.

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Sometimes we do. It depends on what role they are going to be

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playing. It depends on which department they are going to be

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in.

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It could be no certification to multiple certification. We offer

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tuition assistance program. Our employees have access to

01:54:44.000 --> 01:54:48.000

\$5,250 a year to upskill in any way they want. Every year that

01:54:48.000 --> 01:54:53.000

is an employee benefit that our company offers.

01:54:53.000 --> 01:54:55.000

That is just one of a couple different tuition supports that

01:54:55.000 --> 01:54:59.000

we provide for our employees. We have one program where if a

01:54:59.000 --> 01:55:04.000

manager sees that an employee needs to have some type of

01:55:04.000 --> 01:55:08.000

skilling or certification, he can make that known to the

01:55:08.000 --> 01:55:12.000

general manager and then get permission to send them to a

01:55:12.000 --> 01:55:17.000

specific dish we have tools in place that would close the gap.

01:55:17.000 --> 01:55:22.000

With the hiring practices committee depends on which

01:55:22.000 --> 01:55:27.000

department and what they are going to be doing.

01:55:27.000 --> 01:55:32.000

☒Mike: OK, thanks. Appreciate it, putting you on the spot there.

01:55:32.000 --> 01:55:37.000

☒Dr. Russell: I know it, Mike.

01:55:37.000 --> 01:55:39.000

☒[LAUGHTER]

01:55:39.000 --> 01:55:44.000

☒Mike: Lisa, if I could have you come back on, Mary mentioned

01:55:44.000 --> 01:55:46.000

they have support for people to upskill.

01:55:46.000 --> 01:55:50.000

If you find that true on the robotics manufacturing side?

01:55:50.000 --> 01:55:53.000

Are companies giving their existing employees enough time

01:55:53.000 --> 01:55:56.000

and resources to do upskilling?

01:55:56.000 --> 01:56:08.000

☒Lisa: I would say it varies company to company.

01:56:08.000 --> 01:56:09.000

However, I would say the vast majority do not.

01:56:09.000 --> 01:56:14.000

We've been working with a blood of these companies where they

01:56:14.000 --> 01:56:19.000

simply don't have the budget-- a lot of these companies with a

01:56:19.000 --> 01:56:21.000

simile don't have the budget, and they don't even really know

01:56:21.000 --> 01:56:22.000

what courses they would need to get people into specialized

01:56:22.000 --> 01:56:27.000

different areas. For example, some of the

01:56:27.000 --> 01:56:29.000

manufacturers that we talk to, they have one job description

01:56:29.000 --> 01:56:33.000

for hundreds or thousands of people at the robotic technician

01:56:33.000 --> 01:56:36.000

level. Instead of saying, Mike, you will be focused on the

01:56:36.000 --> 01:56:45.000

mechanic system side and here is where

01:56:45.000 --> 01:56:51.000

it moves into more specialized pathway. Here is the next thing

01:56:51.000 --> 01:56:59.000

that he needs to do.

01:56:59.000 --> 01:57:01.000

You basically have a set of generalists who it is so

01:57:01.000 --> 01:57:02.000

important for the job training but it causes things to go

01:57:02.000 --> 01:57:04.000

slowly, rather than if the four of us were to take jobs and we

01:57:04.000 --> 01:57:09.000

knew Mary might be on the programming side and I might be

01:57:09.000 --> 01:57:13.000

the person who is great with fluid power and we would be

01:57:13.000 --> 01:57:18.000

able to make sense of how we move into the specialized areas.

01:57:18.000 --> 01:57:27.000

Another big challenge that the manufacturers are seeing is

01:57:27.000 --> 01:57:32.000

they are reliant on the smart people in the robotic

01:57:32.000 --> 01:57:37.000

integrating companies and they don't have the expertise yet

01:57:37.000 --> 01:57:41.000

established inside the organization. Once the robot and

01:57:41.000 --> 01:57:45.000

the automation solution has been adopted into the organization,

01:57:45.000 --> 01:58:00.000

that expert leaves and goes on to the next job and you look at

01:58:00.000 --> 01:58:02.000

things like virtualization, simulation, big data, the more

01:58:02.000 --> 01:58:04.000

senior kinds of knowledge based as well as the things that both

01:58:04.000 --> 01:58:07.000

make the manufacturing flow more beneficial to the manufacturer,

01:58:07.000 --> 01:58:10.000

those things die on the vine because people don't have those

01:58:10.000 --> 01:58:13.000

responsibilities. That part of the upscaling is

01:58:13.000 --> 01:58:17.000

just going to take time. They will have to get people to

01:58:17.000 --> 01:58:22.000

understand any pattering and

01:58:22.000 --> 01:58:25.000

understanding the line of business, into the more senior

01:58:25.000 --> 01:58:28.000

roles.

01:58:28.000 --> 01:58:33.000

☒Mike: Lisa, another question came up in the chat that might

01:58:33.000 --> 01:58:39.000

be relevant to companies not having resources. Do the

01:58:39.000 --> 01:58:42.000

companies you work with -- are they aware for the federal

01:58:42.000 --> 01:58:45.000

support for training programs? Do they seek estate grants for

01:58:45.000 --> 01:58:50.000

federal grants?

01:58:50.000 --> 01:58:54.000

I might ask Mary if Cook does that as well. Do they access

01:58:54.000 --> 01:58:59.000

those funds?

01:58:59.000 --> 01:59:01.000

☒Lisa: I would say they don't ask them enough.

01:59:01.000 --> 01:59:06.000

We as a national Institute have resources where it is

01:59:06.000 --> 01:59:10.000

member-only solicitations. We will share the things that we

01:59:10.000 --> 01:59:15.000

know of from the Department of Education, Department of Labor,

01:59:15.000 --> 01:59:18.000

the government.

01:59:18.000 --> 01:59:22.000

As soon as any of the BAAs, those kind of things we will

01:59:22.000 --> 01:59:28.000

share with people to help them move however they can to become

01:59:28.000 --> 01:59:33.000

more mature order get the financial resources. They don't

01:59:33.000 --> 01:59:36.000

leverage them nearly enough.

01:59:36.000 --> 01:59:41.000

☒Mike: An opportunity to take more advantage of them.

01:59:41.000 --> 01:59:44.000

Mary, does cook access federal training dollars? in light,

01:59:44.000 --> 01:59:48.000

maybe not. It is a big company.

01:59:48.000 --> 01:59:53.000

☒Dr. Russell: I am not aware that we do. Maybe we do, I'm not

01:59:53.000 --> 01:59:54.000

aware of that.

01:59:54.000 --> 01:59:56.000

☒Mike: All right, good. IQ, Mary.

01:59:56.000 --> 01:59:57.000

--thank you, Mary.

01:59:57.000 --> 01:59:59.000

☒Dustin: Back to you. You are interviewing a person

01:59:59.000 --> 02:00:04.000

who has taken their certificate or degree from a community

02:00:04.000 --> 02:00:09.000

college and they are coming to you. You are interested in their

02:00:09.000 --> 02:00:20.000

technical skills, too, but what will cause them to push to the

02:00:20.000 --> 02:00:22.000

next interview and push forward economic what are you looking

02:00:22.000 --> 02:00:25.000

for?

02:00:25.000 --> 02:00:30.000

☒Dustin: I think as I mentioned, the

02:00:30.000 --> 02:00:35.000

first thing I am looking for is that third piece, and the way

02:00:35.000 --> 02:00:38.000

that might come across in an interview would be a question

02:00:38.000 --> 02:00:42.000

like "can you tell me about your favorite project that you ever

02:00:42.000 --> 02:00:51.000

worked on?" And I don't really care about the project.

02:00:51.000 --> 02:00:53.000

I don't care about the outcome of the project come I don't care

02:00:53.000 --> 02:00:54.000

how successful the project was.

02:00:54.000 --> 02:00:59.000

Do their eyes light up and killed tell me--they tell me

02:00:59.000 --> 02:01:00.000

every little nitty-gritty detail? If they can, that is

02:01:00.000 --> 02:01:05.000

something that really believed and took ownership of. If they

02:01:05.000 --> 02:01:07.000

have that piece, I can get them -- I saw a question in the chat

02:01:07.000 --> 02:01:23.000

about certs. The first couple certs we would

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like to do is there is certified advanced practitioner, the kind

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of runs you through a lot of the vocabulary you need in the

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industry. Another entry-level cert is

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Security+ and network plus. Those are very commonly

02:01:40.000 --> 02:01:45.000
accepted.

02:01:45.000 --> 02:01:51.000
The crown jewel cert in our

02:01:51.000 --> 02:01:54.000
industry is OSCP -- I don't remember exactly what it stands

02:01:54.000 --> 02:01:59.000
for, but OSCP. We can look that up and put it in the chat, I'm

02:01:59.000 --> 02:02:01.000
sure. That is what we push most of our people to get to.

02:02:01.000 --> 02:02:03.000
It takes about six months worth of studying. It is a grueling

02:02:03.000 --> 02:02:04.000
test. You are doing -- you are exploiting

02:02:04.000 --> 02:02:09.000
different machines on the test. I think the CERT is between the

02:02:09.000 --> 02:02:14.000
training and the materials in the exam, talking about \$1000

02:02:14.000 --> 02:02:28.000
give or take. Those are the CERTs we work them through.

02:02:28.000 --> 02:02:31.000
Even from internship and on, I don't think it is terribly

02:02:31.000 --> 02:02:36.000
uncommon in our industry.

02:02:36.000 --> 02:02:37.000
Going to your earlier question, we pay for grad school,

02:02:37.000 --> 02:02:40.000
undergrad, professional

02:02:40.000 --> 02:02:43.000

certifications for all of our people. Continuing education for

02:02:43.000 --> 02:02:48.000

us is the main priority. That is pretty industrywide.

02:02:48.000 --> 02:02:49.000

If you're looking for an industry where you can get -- if

02:02:49.000 --> 02:02:51.000

you finish the two-year degree and looking to get your

02:02:51.000 --> 02:03:01.000

bachelors or Masters degree paid for, or certifications

02:03:01.000 --> 02:03:06.000

paid for by the company, and happens regularly in our field.

02:03:06.000 --> 02:03:09.000

The certifications would be something we would look at again

02:03:09.000 --> 02:03:20.000

. One of the first questions I ask for a junior person is how

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familiar are you with Cybersecurity in general and the

02:03:25.000 --> 02:03:30.000

tools.

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An offensive Linux distribution. You don't have to go to school

02:03:35.000 --> 02:03:41.000

to get those things. Those are free, online.

02:03:41.000 --> 02:03:42.000

You can to capture-the-flag events free. If you go to a

02:03:42.000 --> 02:03:44.000

physical one, you can find one locally, regionally.

02:03:44.000 --> 02:03:48.000

Even if you go to one or two of them, now you have an amazing

02:03:48.000 --> 02:03:53.000

story to tell an interview of, yeah, I went to this capture

02:03:53.000 --> 02:03:57.000

the flag, these are the flags we were trying to get, I had a

02:03:57.000 --> 02:03:59.000

pivot to this firewall, doing different operational networks

02:03:59.000 --> 02:04:07.000

like controller-area network. You don't have to know a lot

02:04:07.000 --> 02:04:09.000

about what those protocols are, but just because you went and

02:04:09.000 --> 02:04:12.000

did that event, you can throw those buzzwords in that I going

02:04:12.000 --> 02:04:21.000

to catch my attention, because I'm going to say, wow, there is

02:04:21.000 --> 02:04:23.000

not many kids coming out of a two-year or even a four-year

02:04:23.000 --> 02:04:26.000

program that are familiar with that, for example. There is not

02:04:26.000 --> 02:04:31.000

many programs that teach them.

02:04:31.000 --> 02:04:36.000

If you go to these industry-sponsored events, you

02:04:36.000 --> 02:04:38.000

will go to these events that are on the frontline of industry but

02:04:38.000 --> 02:04:43.000

not on the frontline of academia yet. The curriculum is lagging.

02:04:43.000 --> 02:04:51.000

☒Mike: Sure. Good response there. Lisa, let me turn back to you.

02:04:51.000 --> 02:04:55.000

And a lot of us of the area of robotics and manufacturing. What

02:04:55.000 --> 02:04:58.000

certifications should we be looking at?

02:04:58.000 --> 02:05:03.000

By the way, Dustin, one of our chat attendees said that your

02:05:03.000 --> 02:05:07.000

OSCP -- I've forgotten what it meant already. It is in the

02:05:07.000 --> 02:05:12.000

chat.

02:05:12.000 --> 02:05:17.000

Lisa comply other interested in

02:05:17.000 --> 02:05:19.000

--Lisa, are they interested in SACA certifications? What is

02:05:19.000 --> 02:05:24.000

recognized by industry partners?

02:05:24.000 --> 02:05:28.000

☑Lisa: All great questions, and I can make an argument that for

02:05:28.000 --> 02:05:33.000

every need, there is a fit and purpose.

02:05:33.000 --> 02:05:37.000

It is completely up to the individual and the employer

02:05:37.000 --> 02:05:42.000

where people start their entryway. We tried to be

02:05:42.000 --> 02:05:46.000

agnostic -- when it first came into our -- I

02:05:46.000 --> 02:05:51.000

came from another part of Carnegie Mellon where it was the

02:05:51.000 --> 02:05:55.000

world of software. You are stable and most of the

02:05:55.000 --> 02:06:00.000

time it is a four-year degree, sometimes an advanced degree,

02:06:00.000 --> 02:06:04.000

you have your programmer. That is what we are seeing now,

02:06:04.000 --> 02:06:07.000

is it some people start off, they are really interested in

02:06:07.000 --> 02:06:12.000

robotics, grade school, high school, doing the competitions,

02:06:12.000 --> 02:06:18.000

they do an apprenticeship, they build their mastery according.

02:06:18.000 --> 02:06:22.000

And that's great.

02:06:22.000 --> 02:06:26.000

And then you have got some people, let's say post-COVID, my

02:06:26.000 --> 02:06:30.000

job went away and I needed to quickly get in.

02:06:30.000 --> 02:06:34.000

Those micro credentials are taking off like gangbusters,

02:06:34.000 --> 02:06:38.000

because it was something that people were able to do while

02:06:38.000 --> 02:06:43.000

they were in quarantine. And we have got a lot of people

02:06:43.000 --> 02:06:50.000

coming in at the various pathways.

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When I talked about those competencies and thankfully the

02:06:51.000 --> 02:06:56.000

mindset is now let's not have everybody try to be the master

02:06:56.000 --> 02:07:01.000

of everything. Let's get them on a pathway that mechanical

02:07:01.000 --> 02:07:04.000

systems -- I got my foot in the door, I got some kind of

02:07:04.000 --> 02:07:09.000

credential, I know I have got the essential skills, and I know

02:07:09.000 --> 02:07:14.000

I've identified where I need to go.

02:07:14.000 --> 02:07:24.000

There is no one right answer and there is no wrong answers.

02:07:24.000 --> 02:07:29.000

It may be that you are a welder on the manufacturing floor and

02:07:29.000 --> 02:07:30.000

your job is going to be automated.

02:07:30.000 --> 02:07:32.000

You are going to be the person most logical to maintain that

02:07:32.000 --> 02:07:33.000

robot and operate that robot and inspect that well stop

02:07:33.000 --> 02:07:35.000

there is a place for you and there is a pathway to getting

02:07:35.000 --> 02:07:39.000

you to where you need to go to be successful in this career.

02:07:39.000 --> 02:07:44.000

I wish I had a silver bullet, but I would say nothing is not

02:07:44.000 --> 02:07:53.000

sensible. People can come in and any age,

02:07:53.000 --> 02:08:00.000

any experience level, have different aspirations once they

02:08:00.000 --> 02:08:03.000

get their feet wet.

02:08:03.000 --> 02:08:05.000

☒Mike: Sure. Good comment. Dustin, do you pay for

02:08:05.000 --> 02:08:10.000

certifications?

02:08:10.000 --> 02:08:12.000

When I mean is an employee's salary set by the certification

02:08:12.000 --> 02:08:13.000

level.

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☒Dustin: To a degree.

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We don't have a structured binary -- like, if you come in

02:08:18.000 --> 02:08:23.000

with us, we give you an extra \$2000 a year.

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☒Mike: That's what I was wondering, yeah.

02:08:25.000 --> 02:08:27.000

☒Dustin: It is all part of the soft package of their CV.

02:08:27.000 --> 02:08:28.000

Sometimes we can negotiate that, sometimes we can't. A lot of

02:08:28.000 --> 02:08:31.000

times with government contracts, the direct rate is fixed by the

02:08:31.000 --> 02:08:57.000

contract. On the commercial side, the market sets the rate.

02:08:57.000 --> 02:09:01.000

Experience and certifications sweetly play little bit more

02:09:01.000 --> 02:09:03.000

into that salary negotiation on the commercial side. Absolutely

02:09:03.000 --> 02:09:08.000

it helps.

02:09:08.000 --> 02:09:10.000

We don't have a fixed dish tw-- two-year degree plus this

02:09:10.000 --> 02:09:18.000

circuit goes this amount. Mike good, thanks.

02:09:18.000 --> 02:09:23.000

With Dustin and Lisa, we have had a real insight to how

02:09:23.000 --> 02:09:28.000

companies view these credentialing certifications.

02:09:28.000 --> 02:09:35.000

Lisa mentioned micro credentials. What about at cook.

02:09:35.000 --> 02:09:45.000

Do you look for credentials?

02:09:45.000 --> 02:09:49.000

MARY: it depends on the role that they are going to be

02:09:49.000 --> 02:09:53.000

accepting.

02:09:53.000 --> 02:09:57.000

for example, we do our edification for our people who

02:09:57.000 --> 02:10:02.000

will be on because we are highly vague.

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Our safety person, that person

02:10:10.000 --> 02:10:13.000

would have to have certain certifications.

02:10:13.000 --> 02:10:18.000

But one of the challenges I see with have certain occasions is

02:10:18.000 --> 02:10:24.000

like think they are needed but because technology has advanced

02:10:24.000 --> 02:10:26.000

so, what we do with that is it would be a challenge to keep up

02:10:26.000 --> 02:10:30.000

with all the skills and certifications that would be

02:10:30.000 --> 02:10:34.000

needed for all of these different rules.

02:10:34.000 --> 02:10:37.000

But I think that upscaling, and Dustin address this little, when

02:10:37.000 --> 02:10:41.000

Dustin was speaking on the fact of people having passion for

02:10:41.000 --> 02:10:46.000

what they do.

02:10:46.000 --> 02:10:48.000

We have to figure out how to help people learn how to be

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continuous learners because we need people who are creative and

02:10:53.000 --> 02:10:57.000

curious who are interested in whatever it is they want to be

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applying for and will not rely on Mary Russell coming and

02:10:59.000 --> 02:11:03.000

saying you need this credential certification. They want to do

02:11:03.000 --> 02:11:08.000

it themselves. that's what I'm trying to

02:11:08.000 --> 02:11:14.000

develop in people and I think Dustin hit on the head when he

02:11:14.000 --> 02:11:19.000

said we want to know that you have a passion for this art.

02:11:19.000 --> 02:11:23.000

because if you have a passion you are going to be waiting for

02:11:23.000 --> 02:11:26.000

me you're going to come to me and say do you know that this

02:11:26.000 --> 02:11:31.000

company is working on this piece of technology. that's what I

02:11:31.000 --> 02:11:34.000

would like to see people.

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It's like we are running behind trying to make sure people are

02:11:39.000 --> 02:11:46.000

skilled. It's going to be more impactful for their lives and

02:11:46.000 --> 02:11:50.000

just whatever they are going if

02:11:50.000 --> 02:11:55.000

indeed they have the passion and hold the desire to want to learn

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and I think that is one of the biggest challenges and that is

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kind of what Lisa was saying.

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How do we get these organizations to have that

02:12:09.000 --> 02:12:14.000

passion and curiosity to look for training out there?

02:12:14.000 --> 02:12:16.000

and how does an organization get their people to the point

02:12:16.000 --> 02:12:21.000

where they have the passion for me to not say you need to get

02:12:21.000 --> 02:12:30.000

certified in this.

02:12:30.000 --> 02:12:34.000

MIKE: as we get near the end of our

02:12:34.000 --> 02:12:39.000

question and answer time, I'm

02:12:39.000 --> 02:12:45.000

going to try one more question on Lisa and Dustin and then I

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will go back to you.

02:12:46.000 --> 02:12:51.000

many of us online here work at community colleges. You know

02:12:51.000 --> 02:12:56.000

that.

02:12:56.000 --> 02:12:59.000

What is the advice you can give

02:12:59.000 --> 02:13:03.000

us, speaking from industry experience, what is the best

02:13:03.000 --> 02:13:07.000
thing community colleges should do?

02:13:07.000 --> 02:13:12.000
to the focus on certifications, projects?

02:13:12.000 --> 02:13:15.000
I know it is a broad question, but if you have a highlight for

02:13:15.000 --> 02:13:20.000
us.

02:13:20.000 --> 02:13:27.000
LISA: it really is a variety of opportunities.

02:13:27.000 --> 02:13:32.000
I would say from an educational perspective, leverage what is

02:13:32.000 --> 02:13:34.000
currently out there for your immediate needs. See if there is

02:13:34.000 --> 02:13:39.000
a local vocational or for-profit

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program that can fill those needs and some kind of regional

02:13:47.000 --> 02:13:51.000
coalition to make sure you are not investing your precious

02:13:51.000 --> 02:13:56.000
dollars in something that already exists , but for the

02:13:56.000 --> 02:14:01.000
future, don't just focus on what the needs are today. Work with

02:14:01.000 --> 02:14:03.000
people in the community to figure out what

02:14:03.000 --> 02:14:07.000
gaps exist and see how we might be able to build on those for

02:14:07.000 --> 02:14:10.000
the future.

02:14:10.000 --> 02:14:14.000
From a certification standpoint, there are a lot of

02:14:14.000 --> 02:14:16.000
people who don't realize there may be opportunities for them to

02:14:16.000 --> 02:14:21.000

get a credential without having to go through training.

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We have been tasked by the

02:14:26.000 --> 02:14:29.000

Department of Defense to create some virtual assessment

02:14:29.000 --> 02:14:33.000

capabilities and there are many across the country. So ensure

02:14:33.000 --> 02:14:38.000

that people have on-the-job experience may be able to test

02:14:38.000 --> 02:14:40.000

out, and move them into the career pathway that is more

02:14:40.000 --> 02:14:42.000

specialized if they have already gotten those general

02:14:42.000 --> 02:14:46.000

capabilities down.

02:14:46.000 --> 02:14:50.000

Let them find a way to test out so that we can build that more

02:14:50.000 --> 02:14:55.000

senior level of technicians, rather than making an assumption

02:14:55.000 --> 02:15:00.000

ever starts at that same base level.

02:15:00.000 --> 02:15:05.000

MIKE: good point. we sometimes call that credit

02:15:05.000 --> 02:15:12.000

on prior learning Dustin, you're going to tell your local

02:15:12.000 --> 02:15:18.000

community college that I want every student who comes in here

02:15:18.000 --> 02:15:25.000

to have that professional security tradition.

02:15:25.000 --> 02:15:41.000

-- certification. NO, what are you going to say?

02:15:41.000 --> 02:15:45.000

DUSTIN: the first thing is take a look

02:15:45.000 --> 02:15:48.000

at that nsa cie and see if that is for you.

02:15:48.000 --> 02:15:53.000

There are a lot of

02:15:53.000 --> 02:15:59.000

Cybersecurity at all, -- there is a lot, but if you are doing

02:15:59.000 --> 02:16:01.000

Cybersecurity at all you have the NSA behind you which is the

02:16:01.000 --> 02:16:02.000

best Cybersecurity organization in the world.

02:16:02.000 --> 02:16:04.000

I would say get involved with a hacking club. There are one

02:16:04.000 --> 02:16:05.000

million resources online that are cheap and free. Why is a

02:16:05.000 --> 02:16:10.000

hacking club important as opposed to just a classroom? For

02:16:10.000 --> 02:16:13.000

the same reasons. We're looking for students that

02:16:13.000 --> 02:16:29.000

are not just looking to checkbox . -- CHECK A BOX.

02:16:29.000 --> 02:16:34.000

Did you join a club did you spend your Wednesday evenings

02:16:34.000 --> 02:16:37.000

inviting people from industry. And that's the third thing,

02:16:37.000 --> 02:16:41.000

don't be shy about getting your local industry involved. I would

02:16:41.000 --> 02:16:43.000

love it if our local community colleges came to me and said

02:16:43.000 --> 02:16:48.000

could you come Wednesday night and speak at our club. could you

02:16:48.000 --> 02:16:53.000

set a CTF for us? they will.

02:16:53.000 --> 02:16:59.000

look to small businesses. big ones may be harder but they have

02:16:59.000 --> 02:17:01.000

a massive amount of resources. look to the small businesses in

02:17:01.000 --> 02:17:02.000

those industries and ask for help. A lot of the times when

02:17:02.000 --> 02:17:04.000

you call up you will be talking to a founder where the owner and

02:17:04.000 --> 02:17:05.000

they can make actionable decisions and spend money and

02:17:05.000 --> 02:17:07.000

resources. You are talking to a

02:17:07.000 --> 02:17:10.000

decision-maker from the start and they will help.

02:17:10.000 --> 02:17:32.000

So don't be shy about it call them up and get a group set up.

02:17:32.000 --> 02:17:36.000

At the end of the day but all of us want to do is employers and

02:17:36.000 --> 02:17:41.000

educators is support the next generation and help them find

02:17:41.000 --> 02:17:43.000

their passion.

02:17:43.000 --> 02:17:48.000

To prove that they are passionate about just outside of

02:17:48.000 --> 02:17:51.000

checkbox school and getting the degree, those are dime a dozen.

02:17:51.000 --> 02:17:56.000

The people who are pursuing a degree because it's what they

02:17:56.000 --> 02:17:57.000

want to do and not just looking for a paycheck, those people are

02:17:57.000 --> 02:17:59.000

going to excel and every company wants to find those people.

02:17:59.000 --> 02:18:04.000

MIKE: people in the audience are going to contact you about being

02:18:04.000 --> 02:18:13.000

on the advisory committee. I just want to let you know that.

02:18:13.000 --> 02:18:18.000

First, I just wanted to say I would jointly capture the flag

02:18:18.000 --> 02:18:31.000

club. That's my take away. Two minutes to wrap up.

02:18:31.000 --> 02:18:33.000

☒MARY: we have about two minutes.

02:18:33.000 --> 02:18:34.000

so I want to say Lisa, Dustin, Jeff, and Mike, thank you. We

02:18:34.000 --> 02:18:36.000

could have gone on for hours. I know there are many things

02:18:36.000 --> 02:18:40.000

that I'm going to go and do a little research on but what I

02:18:40.000 --> 02:18:45.000

want to do now is turn it over to Mary.

02:18:45.000 --> 02:18:58.000

☒MIKE: -- MARY: thank you all of you. That was terrific.

02:18:58.000 --> 02:19:00.000

Thank you for your time and for the information and timely food

02:19:00.000 --> 02:19:02.000

for thought for all of us. We are going to take a short break.

02:19:02.000 --> 02:19:06.000

come back at 2:20 if you are on

02:19:06.000 --> 02:19:08.000

the East Coast, adjust accordingly if not.

02:19:08.000 --> 02:19:10.000

And we will have strategies and successes, best practices for

02:19:10.000 --> 02:19:40.000

diversity and inclusion. so come back. see you soon.

02:29:40.000 --> 02:29:44.000

☒MARY: welcome back, everyone. It is with great pleasure that

02:29:44.000 --> 02:29:49.000

I introduce our second panel for day one, entitled

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strategies and successes, breast -- best actresses for

02:29:55.000 --> 02:30:00.000

diversity, equity, and inclusion.

02:30:00.000 --> 02:30:05.000

our next guest serves as the director of equity and inclusion

02:30:05.000 --> 02:30:07.000

the American Association of community colleges. good

02:30:07.000 --> 02:30:12.000

evening.

02:30:12.000 --> 02:30:15.000

☒Kevin: Good afternoon, everybody. Welcome, it is both

02:30:15.000 --> 02:30:20.000

an honor and a pleasure to be with you

02:30:20.000 --> 02:30:25.000

for the session.

02:30:25.000 --> 02:30:35.000

We have assembled today an outstanding panel of community

02:30:35.000 --> 02:30:40.000

college experts to discuss this topic. I have a committee

02:30:40.000 --> 02:30:45.000

college president, a committee college vice president and a

02:30:45.000 --> 02:30:50.000

chief diversity officer.

02:30:50.000 --> 02:30:55.000

We are going to introduce each one and then have them say a

02:30:55.000 --> 02:30:57.000

little bit about themselves. I would like to start with our

02:30:57.000 --> 02:31:01.000

committee college president Dr. Michael Torrence.

02:31:01.000 --> 02:31:11.000

Dr. Torrence?

02:31:11.000 --> 02:31:14.000

☒MICHAEL: Kevin, can you hear me? perfect.

02:31:14.000 --> 02:31:19.000

I'm sorry.

02:31:19.000 --> 02:31:27.000

Thank you for having me today. I'm looking forward to engaging

02:31:27.000 --> 02:31:32.000

you in this discussion along the levels of stem and all of these

02:31:32.000 --> 02:31:35.000
other areas which we talked about.

02:31:35.000 --> 02:31:40.000
My name is Michael Torrence and I served as president of my

02:31:40.000 --> 02:31:45.000
community college.

02:31:45.000 --> 02:31:49.000
☒kevin: next up, we have a Vice President and Dean for

02:31:49.000 --> 02:31:54.000
workforce development, Tere.

02:31:54.000 --> 02:31:56.000
☒TERE: thank and good afternoon.

02:31:56.000 --> 02:32:04.000
I serve as vice president for Westchester community College,

02:32:04.000 --> 02:32:08.000
part of the state University of New York system in the capacity

02:32:08.000 --> 02:32:10.000
of workforce development and community education.

02:32:10.000 --> 02:32:15.000
☒kevin: next up, I have a chief diversity officer.

02:32:15.000 --> 02:32:26.000
☒FLOYD: good afternoon. Good to be with you all today.

02:32:26.000 --> 02:32:31.000
I serve as our chief diversity officer, as well as our Chief of

02:32:31.000 --> 02:32:37.000
Staff for the committee college out in Phoenix, so it's great to

02:32:37.000 --> 02:32:42.000
be with you this afternoon.

02:32:42.000 --> 02:32:46.000
☒kevin: thank you, everyone, and thank you for giving your

02:32:46.000 --> 02:32:49.000
introductions. I have a number of questions

02:32:49.000 --> 02:32:54.000
that I want to pose to you and I wanted to get your take as we

02:32:54.000 --> 02:32:56.000
have been through a very rough 2020 as we look in the future of

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2021. And for our fall and spring semesters.

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And as we go forward as it relates to your institution.

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Workforce development in the

02:33:05.000 --> 02:33:07.000
United States today is spread across out-of-state institutions

02:33:07.000 --> 02:33:12.000
, especially two-year institutions with funding from a

02:33:12.000 --> 02:33:14.000
range of sources. How are issues around diversity

02:33:14.000 --> 02:33:18.000
and inclusion implement to stimulate your local economy,

02:33:18.000 --> 02:33:23.000
enhance your institutional offerings, and position your

02:33:23.000 --> 02:33:32.000
college as a leader? Dr. Torrence, I will start with you.

02:33:32.000 --> 02:33:44.000
☒MICHAEL: first and foremost, the

02:33:44.000 --> 02:33:46.000
conversation about the work becomes not just an important

02:33:46.000 --> 02:33:48.000
talking point, but it is foundational.

02:33:48.000 --> 02:33:53.000
It is a benchmark of the access being connected to the business

02:33:53.000 --> 02:33:54.000
industry as well as the post secondary work. The idea of how

02:33:54.000 --> 02:34:00.000
it comes across and ties together goes along dialogue.

02:34:00.000 --> 02:34:08.000
To actual action. Those actions start with us.

02:34:08.000 --> 02:34:13.000

Diversity, equity inclusion and belongingness does not happen if

02:34:13.000 --> 02:34:17.000

you do not look to yourself. You cannot posit something

02:34:17.000 --> 02:34:22.000

without depositing something so we are creating something for

02:34:22.000 --> 02:34:25.000

some campuses, those groups on campus are connected to our

02:34:25.000 --> 02:34:28.000

industry partners and we are making certain we have these

02:34:28.000 --> 02:34:33.000

conversations from pre-k through workforce that there is

02:34:33.000 --> 02:34:37.000

connection with our value

02:34:37.000 --> 02:34:42.000

systems. When our value systems align we make a better quote

02:34:42.000 --> 02:34:47.000

unquote product and our output continues to be the backbone of

02:34:47.000 --> 02:34:52.000

America.

02:34:52.000 --> 02:34:54.000

Working with businesses and industry that can support grants

02:34:54.000 --> 02:34:55.000

and other types of partnerships has been very very positive.

02:34:55.000 --> 02:34:57.000

☑kevin: thank you.

02:34:57.000 --> 02:34:58.000

Tere, same question. how are issues around diversity, equity,

02:34:58.000 --> 02:35:03.000

and inclusion the implemented.

02:35:03.000 --> 02:35:06.000

☑TERE: thank you. Let me start by saying Westchester community

02:35:06.000 --> 02:35:32.000

College is located about 30 miles north of New York City.

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In March of 2020, we were labeled as the epicenter of the

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virus, certainly on the East Coast, and we have flung into

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action very quickly under the leadership of our President.

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And so it is in that context that we work every day to create

02:35:54.000 --> 02:35:55.000

that sense of belonging that Dr. Torrence was speaking

02:35:55.000 --> 02:35:57.000

about and to ensure that what is an extraordinarily rich and

02:35:57.000 --> 02:36:01.000

diverse service area for the college is really met where they

02:36:01.000 --> 02:36:02.000

are in every locale under every circumstance.

02:36:02.000 --> 02:36:07.000

You asked about assessment, we are constantly assessing.

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Dr. Miles took our WCC nickname and had us thinking that

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welcome, continue, complete. How are we there are students

02:36:18.000 --> 02:36:19.000

at every step of the way, how can we be honest about the gaps,

02:36:19.000 --> 02:36:21.000

where are the leaks in that continuum of progress for our

02:36:21.000 --> 02:36:27.000

students? and cannot guidance as we work

02:36:27.000 --> 02:36:32.000

to support our students through what has been an unprecedented

02:36:32.000 --> 02:36:52.000

time. in regards to workforce, I will

02:36:52.000 --> 02:36:54.000

say briefly that the pandemic and social and racial unrest in

02:36:54.000 --> 02:36:59.000

this country have allowed us to really galvanize our workforce

02:36:59.000 --> 02:37:07.000
ecosystem. When we talk about the community college and all of

02:37:07.000 --> 02:37:13.000
those stakeholders, our K-12 system, our four year partners,

02:37:13.000 --> 02:37:17.000
community-based organizations and faith-based organizations,

02:37:17.000 --> 02:37:22.000
we have really come together to be able to assess where those

02:37:22.000 --> 02:37:28.000
gaps are, recognize industry needs and then as a community

02:37:28.000 --> 02:37:30.000
college work to bridge those

02:37:30.000 --> 02:37:31.000
gaps and those need through training both in short-term

02:37:31.000 --> 02:37:36.000
workforce and the training that is happening in our certificate

02:37:36.000 --> 02:37:41.000
and workforce programs. kevin: thank you very much.

02:37:41.000 --> 02:37:44.000
☐FLOYD: similar to what my colleagues are mentioning, just

02:37:44.000 --> 02:37:49.000
the intentionality behind the work we are doing.

02:37:49.000 --> 02:37:54.000
And what does it take?

02:37:54.000 --> 02:37:59.000
What we have all had to be creative, what does it take to

02:37:59.000 --> 02:38:03.000
make sure these measures are effective and sustainable

02:38:03.000 --> 02:38:08.000
post-pandemic? so one of the things that has been really

02:38:08.000 --> 02:38:09.000
interesting and really great is that we were

02:38:09.000 --> 02:38:13.000
founded about 42 years ago with the idea of being an accessible

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college.

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one of the original colleges without walls so our whole

02:38:23.000 --> 02:38:25.000

premise is around access, equity, belonging and creating

02:38:25.000 --> 02:38:30.000

a zone where we reach learners where learners are. So pivoting

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to making sure that we know where our resources are

02:38:38.000 --> 02:38:43.000

allocated to intentional and methodical efforts to support

02:38:43.000 --> 02:38:45.000

our learners. one thing we have been able to

02:38:45.000 --> 02:38:50.000

do quite well is make sure we are intentionally anchoring all

02:38:50.000 --> 02:38:56.000

of our transfer agreements with some of our most vulnerable

02:38:56.000 --> 02:39:01.000

student populations.

02:39:01.000 --> 02:39:05.000

And so another idea we have been making sure we implement is

02:39:05.000 --> 02:39:08.000

putting the community back in community college.

02:39:08.000 --> 02:39:12.000

As my colleagues mentioned, making sure we reach out to

02:39:12.000 --> 02:39:16.000

business and industry and a lot of those small businesses that

02:39:16.000 --> 02:39:20.000

are right here.

02:39:20.000 --> 02:39:25.000

as we look at our assessment data, what we are finding is

02:39:25.000 --> 02:39:30.000

our construction and health care, those industries here are

02:39:30.000 --> 02:39:32.000

almost outpacing the national averages, so as we are looking

02:39:32.000 --> 02:39:37.000

to make sure our efforts are sustainable , it is not only

02:39:37.000 --> 02:39:42.000

grounding and anchoring our university and transfer partners

02:39:42.000 --> 02:39:46.000

with programs that are in these high demand fields, but it is

02:39:46.000 --> 02:39:50.000

also making sure that we are intentionally reaching up to

02:39:50.000 --> 02:39:55.000

small businesses and some of our larger players in the greater

02:39:55.000 --> 02:39:59.000

Phoenix community to make sure we are having

02:39:59.000 --> 02:40:03.000

industry validated credentials, industry validated programs and

02:40:03.000 --> 02:40:08.000

offerings.

02:40:08.000 --> 02:40:11.000

My colleague said in a previous meeting skills that pay bills

02:40:11.000 --> 02:40:14.000

that has stuck with over the previous weeks. what we're

02:40:14.000 --> 02:40:18.000

finding is education is no longer the great letter, it's

02:40:18.000 --> 02:40:23.000

jobs.

02:40:23.000 --> 02:40:29.000

Jobs are what are moving our learners from these trajectories

02:40:29.000 --> 02:40:30.000

so what we are making -- what we are doing is make sure we

02:40:30.000 --> 02:40:34.000

capitalize off of the idea of skills that pay bills.

02:40:34.000 --> 02:40:37.000

So anchoring our transfer partners making sure we are

02:40:37.000 --> 02:40:40.000

choosing partners that have sustainable programs in some of

02:40:40.000 --> 02:40:43.000

these market annual spaces, make sure we reach out to our

02:40:43.000 --> 02:40:46.000

industry partners that are in the spaces.

02:40:46.000 --> 02:40:52.000

making sure they are layering our credentials in these

02:40:52.000 --> 02:40:57.000

descriptions so that when our learners are ready to transfer

02:40:57.000 --> 02:41:03.000

into the workforce, that they have not just entry-level jobs,

02:41:03.000 --> 02:41:05.000

but sustainable jobs that really change economic status and

02:41:05.000 --> 02:41:10.000

social mobility.

02:41:10.000 --> 02:41:15.000

Kevin: I'm going to my next question, but we also have a

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question from the audience.

02:41:20.000 --> 02:41:23.000

I'm going to hold off on that because it ties into my next

02:41:23.000 --> 02:41:27.000

question.

02:41:27.000 --> 02:41:31.000

As you look through this question, community colleges to

02:41:31.000 --> 02:41:36.000

some very significant things when it comes to workforce and

02:41:36.000 --> 02:41:38.000

innovation. however we are often not a part

02:41:38.000 --> 02:41:43.000

of the conversation.

02:41:43.000 --> 02:41:45.000

looking through your lens at your position and at your

02:41:45.000 --> 02:41:46.000

institution, what steps have been taken to broaden workforce

02:41:46.000 --> 02:41:51.000

development and getting students to see possibility -- to see the

02:41:51.000 --> 02:41:53.000

possibilities?

02:41:53.000 --> 02:41:57.000

TERE: thanks, Kevin. you are going off script. -- script.

02:41:57.000 --> 02:42:07.000

[LAUGHTER]

02:42:07.000 --> 02:42:12.000

I think of the 20 plus colleagues from clearly colleges

02:42:12.000 --> 02:42:19.000

that are joining us this afternoon and all of their

02:42:19.000 --> 02:42:24.000

various roles and everybody in between, folks on my and

02:42:24.000 --> 02:42:31.000

workforce development. It becomes incumbent on each

02:42:31.000 --> 02:42:34.000

and every one of us to take our role at the table within the

02:42:34.000 --> 02:42:47.000

unity, etc.. Otherwise we won't be at the table.

02:42:47.000 --> 02:42:52.000

and then we wonder why our students may be overlooked or

02:42:52.000 --> 02:42:54.000

were not being thought of for a

02:42:54.000 --> 02:42:56.000

training opportunity, etc..

02:42:56.000 --> 02:43:01.000

it is incumbent on all of us to be in that space and do the work

02:43:01.000 --> 02:43:02.000

that is required with our partners or other community

02:43:02.000 --> 02:43:04.000

stakeholders.

02:43:04.000 --> 02:43:09.000

I think that the recent pandemic and wanting to be

02:43:09.000 --> 02:43:23.000

there for our communities has offered us opportunities for

02:43:23.000 --> 02:43:33.000

Mulvaney -- more venues, being part of more venues for our

02:43:33.000 --> 02:43:50.000

cuties. -- our communities.

02:43:50.000 --> 02:43:56.000

I see that when our office steps up and sees the work they

02:43:56.000 --> 02:43:59.000

want put forward.

02:43:59.000 --> 02:44:04.000

Also, our partners in philanthropy.

02:44:04.000 --> 02:44:09.000

We are so grateful for our foundation recently

02:44:09.000 --> 02:44:14.000

and the way we have had others step up to offer scholarships

02:44:14.000 --> 02:44:15.000

especially for those who have been left out of training or

02:44:15.000 --> 02:44:20.000

jobs in the past. Kevin:

02:44:20.000 --> 02:44:25.000

dr. Hardin, to question. -- same question.

02:44:25.000 --> 02:44:30.000

☐FLOYD: similarly, we have augmented our relationship with

02:44:30.000 --> 02:44:36.000

unity organizations.

02:44:36.000 --> 02:44:37.000

With the NAACP, with various fraternities and sororities that

02:44:37.000 --> 02:44:39.000

have inroads into opportunities for our learners, and making

02:44:39.000 --> 02:44:44.000

sure we are augmenting and making intentional those

02:44:44.000 --> 02:44:50.000

relationships from a committee standpoint.

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We have really partnered with our academic with our academic

02:44:52.000 --> 02:45:06.000

-- partnered with our academic affairs folks

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and degree programs in how do we pair some of that down,

02:45:08.000 --> 02:45:14.000

making sure that we are engaging again with our workforce

02:45:14.000 --> 02:45:25.000

partners. how do we create accelerated

02:45:25.000 --> 02:45:30.000

and more intentional pathways into these spaces that can help

02:45:30.000 --> 02:45:35.000

change the trajectory of our learners? we have really taken

02:45:35.000 --> 02:45:40.000

an inventory of what it is we offer and how do we make sure

02:45:40.000 --> 02:45:45.000

we can put two micro that could really help speed their

02:45:45.000 --> 02:45:50.000

stricter speed into workforce.

02:45:50.000 --> 02:45:53.000

To broaden the scope of workforce I think for the comes

02:45:53.000 --> 02:45:58.000

into the college and understands it may take years to get into a

02:45:58.000 --> 02:46:04.000

degree program. They can see that through a

02:46:04.000 --> 02:46:07.000

scholarship from the NAACP, I have now been able to obtain

02:46:07.000 --> 02:46:10.000

this certification that has allowed me to go into

02:46:10.000 --> 02:46:13.000

construction.

02:46:13.000 --> 02:46:18.000

So now I have the skills as

02:46:18.000 --> 02:46:22.000

well as the experience and certificate that can help me

02:46:22.000 --> 02:46:26.000

move into a managerial space.

02:46:26.000 --> 02:46:31.000

I think we have taken very practical measures in trying to

02:46:31.000 --> 02:46:37.000

leverage our philanthropic avenues but more intentionally

02:46:37.000 --> 02:46:40.000

working with some of our civic and community based

02:46:40.000 --> 02:46:42.000

organizations to see if they can offer scholarships and

02:46:42.000 --> 02:46:47.000

sponsorships to some other demographic populations.

02:46:47.000 --> 02:46:49.000

We have worked a lot with NAACP, with our African-American

02:46:49.000 --> 02:46:52.000

students. we just got designated as a Hispanic serving Touche and

02:46:52.000 --> 02:46:55.000

we want to make sure that we are going back to the data.

02:46:55.000 --> 02:46:59.000

Seeing were some of our most vulnerable populations are

02:46:59.000 --> 02:47:01.000

making sure we are creating inroads and all the branches

02:47:01.000 --> 02:47:06.000

with some of those different community and civic

02:47:06.000 --> 02:47:14.000

organizations that specifically help to sponsor and move the

02:47:14.000 --> 02:47:21.000

socioeconomic status and social mobility of those populations

02:47:21.000 --> 02:47:25.000

into sustainable spaces and making sure we are partnering

02:47:25.000 --> 02:47:28.000

with our academic affairs folks to complement those efforts and

02:47:28.000 --> 02:47:33.000

really make sure we are accelerating the pathway for

02:47:33.000 --> 02:47:35.000

some of those.

02:47:35.000 --> 02:47:39.000

Kevin: I'm going to ask the same question but add a little

02:47:39.000 --> 02:47:44.000

caveat.

02:47:44.000 --> 02:47:48.000

As the president of an institution, when you set the

02:47:48.000 --> 02:47:53.000

priorities for your institution with regards to broadening

02:47:53.000 --> 02:47:54.000

workforce development and innovation, what steps do you

02:47:54.000 --> 02:47:57.000

and your staff take with regards to students of color and diverse

02:47:57.000 --> 02:48:02.000

student populations and making sure you are sensitive to their

02:48:02.000 --> 02:48:06.000

needs as it related to your institution?

02:48:06.000 --> 02:48:07.000

MICHAEL: great segue, Kevin, and you must have been in my head

02:48:07.000 --> 02:48:12.000

because I was licking my chops for this question. Specifically

02:48:12.000 --> 02:48:20.000

as we speak about students of color, whether they

02:48:20.000 --> 02:48:25.000

be Hispanic or Middle Eastern, many without a desert nation of

02:48:25.000 --> 02:48:28.000

form for financial aid.

02:48:28.000 --> 02:48:33.000

The socioeconomic status, impacted students, and I want to

02:48:33.000 --> 02:48:35.000

get a caveat, everyone has problems, everyone is going

02:48:35.000 --> 02:48:37.000

through something. therefore making sure we are

02:48:37.000 --> 02:48:42.000

representative in our hiring

02:48:42.000 --> 02:48:48.000

and representative in not the programmatic type of events but

02:48:48.000 --> 02:48:54.000

building a culture that is committed to this ideology.

02:48:54.000 --> 02:48:57.000

Commitment without currency is counterfeit. If we are not going

02:48:57.000 --> 02:49:07.000

to support it with some kind of resource

02:49:07.000 --> 02:49:08.000

-- without some

02:49:08.000 --> 02:49:10.000

kind of resource, let's stop talking.

02:49:10.000 --> 02:49:13.000

we have to be better just to support students.

02:49:13.000 --> 02:49:18.000

The framing of the conversation, first the institution had to

02:49:18.000 --> 02:49:20.000

decide that I was not crazy and I mean that with all the love

02:49:20.000 --> 02:49:37.000

that I can sing. -- I can say that.

02:49:37.000 --> 02:49:39.000

I want to jump into the freefall that the use of technology is

02:49:39.000 --> 02:49:41.000

the great equalizer. It is not only a resource

02:49:41.000 --> 02:49:46.000

question the way of life because enhancing technology impacts

02:49:46.000 --> 02:49:47.000

everything we do. We wanted to broaden our

02:49:47.000 --> 02:49:49.000

connection not only in

02:49:49.000 --> 02:49:53.000

development and philanthropic but actually -- act limiting

02:49:53.000 --> 02:49:58.000

them to our culture.

02:49:58.000 --> 02:50:00.000

community colleges have long been at the little kids table

02:50:00.000 --> 02:50:01.000

and I refuse to be anyone's little brother or anyone's

02:50:01.000 --> 02:50:09.000

stepchild. I am at the mindset that I am

02:50:09.000 --> 02:50:14.000

of the mindset that at our institution, we will build our

02:50:14.000 --> 02:50:16.000

own shares and invite you to sit with us. we will happily invite

02:50:16.000 --> 02:50:28.000

you to sit with us and move the meeting but you have to

02:50:28.000 --> 02:50:33.000

acquiesce to our values to achieve persistence and

02:50:33.000 --> 02:50:36.000

connection and long-term skill development our student

02:50:36.000 --> 02:50:38.000

population. We are not going to back down

02:50:38.000 --> 02:50:41.000

from being committed to that.

02:50:41.000 --> 02:50:44.000

Remember that training is workforce, education at the end

02:50:44.000 --> 02:50:48.000

of the day is workforce and that's the script we are trying

02:50:48.000 --> 02:50:53.000

to flip here.

02:50:53.000 --> 02:50:57.000

Make it understood that in stem areas in the arts, we are not

02:50:57.000 --> 02:51:04.000

educating you to be with us for six or seven years but to get

02:51:04.000 --> 02:51:06.000

in, get out and cap that and to have the kind of impact and

02:51:06.000 --> 02:51:08.000

community develop as soon as possible because at the end of

02:51:08.000 --> 02:51:13.000

the day literally your life depends on it.

02:51:13.000 --> 02:51:18.000

☒Kevin: I have a question from the audience that ties into what

02:51:18.000 --> 02:51:23.000

I have just asked.

02:51:23.000 --> 02:51:28.000

the question that we have is we have observed that some of our

02:51:28.000 --> 02:51:42.000

students have fallen through the cracks in between academic

02:51:42.000 --> 02:51:45.000

terms. how can we support students between terms to

02:51:45.000 --> 02:51:50.000

further student success? would anyone like to take a

02:51:50.000 --> 02:51:54.000

stab at that?

02:51:54.000 --> 02:51:59.000

☒MICHAEL: I am in.

02:51:59.000 --> 02:52:01.000

let's ask institutions, let's ask the divides that we have

02:52:01.000 --> 02:52:03.000

created amongst ourselves.

02:52:03.000 --> 02:52:06.000

I was a professor before I was an administrator.

02:52:06.000 --> 02:52:11.000

At the end of the day I have been everything that the

02:52:11.000 --> 02:52:15.000

institution supports and is. Therefore, we are part of it

02:52:15.000 --> 02:52:20.000

all.

02:52:20.000 --> 02:52:25.000

there is no segmentation of what we are trying to do. We are all

02:52:25.000 --> 02:52:38.000

in the same team. We cannot help them we cannot help ourselves.

02:52:38.000 --> 02:52:43.000

As it relates to students, our faculty are the best and I know

02:52:43.000 --> 02:52:45.000

we would all say that.

02:52:45.000 --> 02:52:50.000

The idea of when the contract stops and when the contract

02:52:50.000 --> 02:52:56.000

begins how do we feel that cap

02:52:56.000 --> 02:52:58.000

-- tht gap -- that gap? So that through the noncredit

02:52:58.000 --> 02:53:02.000

micro pretension, we can pay them a market rate that will

02:53:02.000 --> 02:53:07.000

support enhancing of skills on a continuous basis.

02:53:07.000 --> 02:53:10.000

There is no summer school, just continuous ongoing learning. I

02:53:10.000 --> 02:53:20.000

think that's one of the best ways to support students.

02:53:20.000 --> 02:53:24.000

▣TERE: it's hard to follow on that

02:53:24.000 --> 02:53:33.000

kind of statement, but I will say that from a more practical

02:53:33.000 --> 02:53:38.000

perspective, we are focused very keenly on understanding our

02:53:38.000 --> 02:53:45.000

students and looking on a continuum of learning. There

02:53:45.000 --> 02:53:48.000

might be a break, you are our student until you reach the

02:53:48.000 --> 02:53:51.000

intent that you came here to fulfill.

02:53:51.000 --> 02:53:56.000

that ends up evidencing itself in a case management approach to

02:53:56.000 --> 02:53:59.000

how we work with our students and we work with them very hard

02:53:59.000 --> 02:54:04.000

at Westchester College to get to a place where we can scale and

02:54:04.000 --> 02:54:12.000

sustain case management for all of our students.

02:54:12.000 --> 02:54:15.000

We know that when we look at the work we do in our

02:54:15.000 --> 02:54:16.000

educational programs, we are very fortunate to be far along

02:54:16.000 --> 02:54:21.000

in the Ricky -- in the replication of a model to help

02:54:21.000 --> 02:54:27.000

students move from developmental education through to completion

02:54:27.000 --> 02:54:32.000

and when it works, it works because somebody knows my name.

02:54:32.000 --> 02:54:33.000

They're watching out for me they know I haven't been class and

02:54:33.000 --> 02:54:35.000

they want to know what happened.

02:54:35.000 --> 02:54:39.000

Those needs go, as Dr. Torres has referenced to my housing

02:54:39.000 --> 02:54:40.000

needs, my food needs, my family needs etc., so it is a challenge

02:54:40.000 --> 02:54:45.000

that we all take on asking to be college educators and

02:54:45.000 --> 02:54:50.000

administrators.

02:54:50.000 --> 02:54:55.000

-- take on as community college educators and administrators.

02:54:55.000 --> 02:55:02.000

☒FLOYD: I've learned that when a campus

02:55:02.000 --> 02:55:03.000

is connected outside of the classroom, outside of just the

02:55:03.000 --> 02:55:07.000

book they are studying from, that connection happens with the

02:55:07.000 --> 02:55:11.000

institution. I would go further to say that tension happens at

02:55:11.000 --> 02:55:13.000

the onset of your experience.

02:55:13.000 --> 02:55:18.000

it does not have -- that retention happens at the onset of

02:55:18.000 --> 02:55:35.000

your experience. I say that with all the love in

02:55:35.000 --> 02:55:37.000

my heart is often we forget in education that we are providing

02:55:37.000 --> 02:55:41.000

a service, that we are getting folks from point A to point B so

02:55:41.000 --> 02:55:44.000

part of that is making sure that everyone on campus goes back to

02:55:44.000 --> 02:55:50.000

that culture building. that we are a social justice

02:55:50.000 --> 02:55:55.000

institution where we care about all of our learners. Every

02:55:55.000 --> 02:55:57.000

learner involved with us and those that are not yet.

02:55:57.000 --> 02:56:02.000

Retention starts from day one

02:56:02.000 --> 02:56:09.000

and part of that is building a culture where staff and

02:56:09.000 --> 02:56:14.000

leadership understands they are both a treatment and retention

02:56:14.000 --> 02:56:20.000

specialist. They have the job to check in with student and

02:56:20.000 --> 02:56:25.000

learners and bring them.

02:56:25.000 --> 02:56:33.000

It sounds counterintuitive, handholding through the process.

02:56:33.000 --> 02:56:38.000

It is hard to register for

02:56:38.000 --> 02:56:39.000

class, is hard to take care of the family and do homework and

02:56:39.000 --> 02:56:41.000

all of those things.

02:56:41.000 --> 02:56:45.000

Dr. Torres mentioned that we are all going through something so

02:56:45.000 --> 02:56:47.000

to move from the mindset of that is not my job to I can

02:56:47.000 --> 02:56:50.000

absolutely help you is crucial

02:56:50.000 --> 02:56:55.000

and that all comes with culture.

02:56:55.000 --> 02:57:01.000

corporate modeling -- cohort modeling, programs, all help to

02:57:01.000 --> 02:57:13.000

facilitate connection and if I am being celebrated for getting

02:57:13.000 --> 02:57:18.000

a B in a course that is considered difficult, I'm going

02:57:18.000 --> 02:57:20.000

to keep going on all of those different theories show that

02:57:20.000 --> 02:57:23.000

when a student is celebrated for milestones, they built that

02:57:23.000 --> 02:57:27.000

connection and they seek it out.

02:57:27.000 --> 02:57:32.000

I think that along with early alert systems and being able to

02:57:32.000 --> 02:57:34.000

log into the data to see which students are struggling and

02:57:34.000 --> 02:57:39.000

which are successful, when a student feels safe to ask for

02:57:39.000 --> 02:57:47.000

help, they will ask for help and part of that is creating a

02:57:47.000 --> 02:57:53.000

culture where we are creating safe spaces across the board

02:57:53.000 --> 02:57:56.000

and that is academic affairs, student affairs, every silo,

02:57:56.000 --> 02:58:03.000

every house on campus.

02:58:03.000 --> 02:58:12.000

Kevin: I thank you for your answer and something you said

02:58:12.000 --> 02:58:17.000

really resonated with me. You said diversity is data and

02:58:17.000 --> 02:58:24.000

I wanted to see if I could get you to expand on that little

02:58:24.000 --> 02:58:27.000

more.

02:58:27.000 --> 02:58:33.000

With everything that happened last year and as Dr. Torres

02:58:33.000 --> 02:58:41.000

indicated, each one of our institutions faced some type of

02:58:41.000 --> 02:58:42.000

issue centered around DIE -- DEI.

02:58:42.000 --> 02:58:45.000

When your data showed that a particular group was falling

02:58:45.000 --> 02:58:50.000

through the cracks as opposed

02:58:50.000 --> 02:58:56.000

to other groups, what best practices, or what did your

02:58:56.000 --> 02:59:01.000

institution do to assist that particular so that other

02:59:01.000 --> 02:59:07.000

colleges can learn from what you did at your institution?

02:59:07.000 --> 02:59:16.000

FLOYD: here in the Maricopa County

02:59:16.000 --> 02:59:21.000

College District, 31 or so percent of our students are

02:59:21.000 --> 02:59:22.000

Hispanic with about a quarter falling below the poverty line.

02:59:22.000 --> 02:59:27.000

So when we look at some of our most vulnerable populations, we

02:59:27.000 --> 02:59:33.000

have a number of learners that are remote on the reservation

02:59:33.000 --> 02:59:37.000

and we find they are not always

02:59:37.000 --> 02:59:40.000

represented well in the classroom but are some of our

02:59:40.000 --> 02:59:45.000

highest performers in the classroom. But we have done is

02:59:45.000 --> 02:59:50.000

created a whole division called our

02:59:50.000 --> 02:59:55.000

national division.

02:59:55.000 --> 02:59:57.000

For those who don't know, the colleges about a 70% online

02:59:57.000 --> 02:59:58.000

institution. In Sobol we have always served

02:59:58.000 --> 03:00:01.000

students across the nation, with the implication --

03:00:01.000 --> 03:00:04.000

implementation of this division, we have thought to create access

03:00:04.000 --> 03:00:07.000

across the country and that means really augmenting our work

03:00:07.000 --> 03:00:12.000

with our tribal colleges and universities.

03:00:12.000 --> 03:00:17.000

We have about seven articulation agreements across

03:00:17.000 --> 03:00:30.000

district and we talked a little bit earlier

03:00:30.000 --> 03:00:35.000

about the K-12 12, K 20 ecosystem. Really making sure

03:00:35.000 --> 03:00:37.000

that what we are looking at doing is being right here in

03:00:37.000 --> 03:00:41.000

Metropolitan Phoenix where we have a number of school

03:00:41.000 --> 03:00:44.000

districts and a very robust precollege program and

03:00:44.000 --> 03:00:49.000

we are creating is pathways

03:00:49.000 --> 03:00:56.000

where we are working with

03:00:56.000 --> 03:01:01.000

learners where we know that their special interests and

03:01:01.000 --> 03:01:03.000

cultural relevance will be protected and celebrated and

03:01:03.000 --> 03:01:08.000

uplifted again creating that campus connection.

03:01:08.000 --> 03:01:09.000

So they come, they get their foundation and reduce soft

03:01:09.000 --> 03:01:14.000

handoffs through our articulation agreements. The

03:01:14.000 --> 03:01:16.000

school had an articulation agreement year and a half ago

03:01:16.000 --> 03:01:17.000

with Paul Quinn.

03:01:17.000 --> 03:01:20.000

-- Paul Quinn University where a percentage of students

03:01:20.000 --> 03:01:25.000

who go into that university get tuition free so it's being able

03:01:25.000 --> 03:01:27.000

to create relationships like that to make sure we are

03:01:27.000 --> 03:01:32.000

servicing those students who have really been hit either

03:01:32.000 --> 03:01:33.000

pandemic and a lot of them are our black and brown students

03:01:33.000 --> 03:01:44.000

here. Specific. -- very specifically.

03:01:44.000 --> 03:01:47.000

so making sure they can create that picture and then

03:01:47.000 --> 03:01:51.000

handholding through that pathway.

03:01:51.000 --> 03:01:56.000

That is just one of the initiatives we have taken on and

03:01:56.000 --> 03:02:04.000

intensified the pandemic. Another one we have implement

03:02:04.000 --> 03:02:09.000

it very seriously is our equity action forum.

03:02:09.000 --> 03:02:13.000

I mentioned earlier wrist lotto was founded from a space of

03:02:13.000 --> 03:02:18.000

accessibility for what we have done is created intentional time

03:02:18.000 --> 03:02:23.000

and space for our populations to really come and discuss and talk

03:02:23.000 --> 03:02:27.000

about initiatives that we can take to

03:02:27.000 --> 03:02:32.000

make our campus a space of belonging for populations across

03:02:32.000 --> 03:02:34.000

the board.

03:02:34.000 --> 03:02:40.000

☒Kevin: do you have anything to add that?

03:02:40.000 --> 03:02:42.000

☒TERE:

03:02:42.000 --> 03:02:43.000

I would add specifically, Kevin, we all know that real impact

03:02:43.000 --> 03:02:45.000

happens in the classroom and Westchester community

03:02:45.000 --> 03:02:50.000

College is so lucky and talented to have been awarded

03:02:50.000 --> 03:02:52.000

two grants over the last several years. One of them with a focus

03:02:52.000 --> 03:02:59.000

in photonics and optics and

03:02:59.000 --> 03:03:10.000

creating gender equity in those areas of technologies and most

03:03:10.000 --> 03:03:18.000

recently an HSI HTE grant that will focus on helping pedagogy

03:03:18.000 --> 03:03:23.000

to be culturally responsive for such a diverse group of

03:03:23.000 --> 03:03:31.000

students. I am not an expert in either of those.

03:03:31.000 --> 03:03:36.000

A lot of my colleagues are at the conference. I hope they will

03:03:36.000 --> 03:03:42.000

throw some things in the chat and make themselves available to

03:03:42.000 --> 03:03:45.000

answer more but I do know that kind of

03:03:45.000 --> 03:03:51.000

support that we get from NSF and being part of this program and

03:03:51.000 --> 03:03:56.000

the mentor connect program that really led us to this place were

03:03:56.000 --> 03:04:01.000

we can learn from other colleges doing the same

03:04:01.000 --> 03:04:02.000

work and creating a community

03:04:02.000 --> 03:04:05.000

of practice really informs how we work with and support our

03:04:05.000 --> 03:04:10.000

student on their academic journey.

03:04:10.000 --> 03:04:15.000

So a little bit different from your question but again a

03:04:15.000 --> 03:04:19.000

record -- recognition -- a recognition that they provide

03:04:19.000 --> 03:04:22.000

the best success.

03:04:22.000 --> 03:04:32.000

One more thing that first grant around photonics led to some

03:04:32.000 --> 03:04:34.000

unintended great consequent point those same faculty were

03:04:34.000 --> 03:04:46.000

encouraged and energized to help us create curriculum and

03:04:46.000 --> 03:04:51.000

advanced manufacturing and noncredit credentialing and so

03:04:51.000 --> 03:04:53.000

all of a sudden we were expanding pathways and expanding

03:04:53.000 --> 03:04:54.000

opportunities and recognizing that a student's journey is not

03:04:54.000 --> 03:04:56.000

linear, it is cyclical.

03:04:56.000 --> 03:05:01.000

We continue to have students beginning in and moving to

03:05:01.000 --> 03:05:04.000

credit taking advantage of short-term credentials as they

03:05:04.000 --> 03:05:06.000

explore new industries and pathways.

03:05:06.000 --> 03:05:08.000

☐FLOYD: thank you for that. MICHAEL: one of the things we

03:05:08.000 --> 03:05:16.000

talk about is creating space.

03:05:16.000 --> 03:05:17.000

I have been Tennessee or the Regents system since 2013. My

03:05:17.000 --> 03:05:27.000

math is escaping me right now. I am an English major, by the way.

03:05:27.000 --> 03:05:48.000

The idea of leading by investment leading from where

03:05:48.000 --> 03:05:52.000

you are, making sure every engagement we have with students

03:05:52.000 --> 03:05:57.000

is encouraging and authentic and also we are supportive of the

03:05:57.000 --> 03:05:59.000

faculty and staff.

03:05:59.000 --> 03:06:04.000

Folks don't see me, I'm in passing and moving quickly to

03:06:04.000 --> 03:06:09.000

get from one place to the other knowing students by our name or

03:06:09.000 --> 03:06:11.000

how big our organization gets, knowing a better name their

03:06:11.000 --> 03:06:16.000

dreams and helping them get there. at Westchester this

03:06:16.000 --> 03:06:20.000

professor named Mark Condon, an old

03:06:20.000 --> 03:06:25.000

colleague from Northeast. Nice to have conversations with him

03:06:25.000 --> 03:06:27.000

about pre-k to the grave.

03:06:27.000 --> 03:06:30.000

-- I used to have conversations with him about pre-k to the

03:06:30.000 --> 03:06:32.000

great. that's what we used to do. I hope everyone on the

03:06:32.000 --> 03:06:38.000

screen is familiar with the

03:06:38.000 --> 03:06:43.000

opportunity to condense.org. Note where students come from.

03:06:43.000 --> 03:06:46.000

It's amazing that a mile away from each other can literally be

03:06:46.000 --> 03:06:55.000

across the tracks. Being next door to a neighbor

03:06:55.000 --> 03:07:00.000

is varied based on who's working, how the people in the

03:07:00.000 --> 03:07:05.000

house are working, what you have for dinner and even if you are

03:07:05.000 --> 03:07:12.000

having dinner. Making sure we were covert

03:07:12.000 --> 03:07:22.000

these things that allow us to push persistence to completion

03:07:22.000 --> 03:07:23.000

equals success. you need to make sure that our students come away

03:07:23.000 --> 03:07:25.000

with not only the skills to pay bills but an understanding of

03:07:25.000 --> 03:07:27.000

financial literacy.

03:07:27.000 --> 03:07:28.000

do you know what happens with compounding interest? I don't

03:07:28.000 --> 03:07:32.000

know if you know that as an adult. if you put away a

03:07:32.000 --> 03:07:37.000

thousand dollars when you were 18, you are going to be OK if

03:07:37.000 --> 03:07:41.000

you don't touch it. understanding financial

03:07:41.000 --> 03:07:52.000

literacy. In Tennessee specifically, we

03:07:52.000 --> 03:07:58.000

have a tendency promise Tennessee reconnect and

03:07:58.000 --> 03:08:03.000

Tennessee strong which they little-known program for our

03:08:03.000 --> 03:08:05.000

guardsmen. This is the way we leverage the idea of technology

03:08:05.000 --> 03:08:10.000

and skills

03:08:10.000 --> 03:08:17.000

to improve condition -- improve the human condition.

03:08:17.000 --> 03:08:23.000

Kevin: we are getting some great questions and I am going off

03:08:23.000 --> 03:08:28.000

script a little bit but I'm going to ask you the last

03:08:28.000 --> 03:08:30.000

question and I am very mindful

03:08:30.000 --> 03:08:35.000

of the time we have some great questions

03:08:35.000 --> 03:08:36.000

and I think it would do us justice and do our audience

03:08:36.000 --> 03:08:38.000

justice if we talked about them because this is what our field

03:08:38.000 --> 03:08:42.000

is working for.

03:08:42.000 --> 03:08:47.000

I wondered if we can take a moment

03:08:47.000 --> 03:08:49.000

-- the first question I want to address is, which strategies

03:08:49.000 --> 03:08:51.000

would you suggest for two year colleges to track student

03:08:51.000 --> 03:08:54.000

demographic information and better understand which students

03:08:54.000 --> 03:09:03.000

are being served? You have alluded to it before

03:09:03.000 --> 03:09:05.000

but I was wondering if you have anything specific that you can

03:09:05.000 --> 03:09:10.000

provide to answer that particular question. Thank you.

03:09:10.000 --> 03:09:24.000

☐FLOYD: the first thing I would say is encourage opting in.

03:09:24.000 --> 03:09:26.000

So much of what Dr. Torrence alluded to on the other side of

03:09:26.000 --> 03:09:30.000

the tracks -- it is still scary to tell folks that you are poor,

03:09:30.000 --> 03:09:34.000

that you are gay, that you are black.

03:09:34.000 --> 03:09:39.000

We lose a lot of valuable information because we don't

03:09:39.000 --> 03:09:41.000

create spaces of belonging.

03:09:41.000 --> 03:09:46.000

I will use this as an example, October reporting.

03:09:46.000 --> 03:09:51.000

We had so many folks on campus afraid to report that they were

03:09:51.000 --> 03:09:52.000

in close contact with Covid or that they had Covid, that they

03:09:52.000 --> 03:09:55.000

attracted Covid, but what they have come to realize is us

03:09:55.000 --> 03:10:00.000

understanding the numbers and where we are in the population,

03:10:00.000 --> 03:10:06.000

being able to assess the data helps keep them safer. I think

03:10:06.000 --> 03:10:09.000

there is still a stigma

03:10:09.000 --> 03:10:13.000

-- I just typed in the chat, the digital divide is still very

03:10:13.000 --> 03:10:14.000

real and we have students who are still typing term papers on

03:10:14.000 --> 03:10:19.000

their phones, and that is a scary thing.

03:10:19.000 --> 03:10:24.000

We have students who have food and security, housing and

03:10:24.000 --> 03:10:28.000

security, housing insecurity, experiencing homelessness. That

03:10:28.000 --> 03:10:30.000

is uncomfortable to report.

03:10:30.000 --> 03:10:34.000

But if I know that if I go to any institution and I feel

03:10:34.000 --> 03:10:39.000

comfortable reporting that because I know, through my

03:10:39.000 --> 03:10:41.000

opting in to the point it's, I would get help and the support

03:10:41.000 --> 03:10:43.000

systems that I need to be successful, then I will gladly

03:10:43.000 --> 03:10:47.000

report.

03:10:47.000 --> 03:10:52.000

That is the first step, from a DI lens, is capitalizing on

03:10:52.000 --> 03:10:56.000

that, greeting that space of belonging. We are asking you to

03:10:56.000 --> 03:11:01.000

opt in because we have the resources that can help you and

03:11:01.000 --> 03:11:03.000

if we don't have the resources, we have the partnerships with

03:11:03.000 --> 03:11:08.000

the resources that can help you.

03:11:08.000 --> 03:11:15.000

That is rudimentary ground one, being able to create that space.

03:11:15.000 --> 03:11:17.000

Kevin: would you like to add to that?

03:11:17.000 --> 03:11:18.000

TERE: I think in addition to all of

03:11:18.000 --> 03:11:23.000

the data that we all caps share, retention, graduation rates, GPA

03:11:23.000 --> 03:11:28.000

accumulation, our

03:11:28.000 --> 03:11:31.000

students on track -- are students on track to graduate,

03:11:31.000 --> 03:11:36.000

we do all of that.

03:11:36.000 --> 03:11:37.000

We also focus on doing some of those soft surveys of our

03:11:37.000 --> 03:11:40.000

students. This morning, we got from our

03:11:40.000 --> 03:11:45.000

institutional research department some results from

03:11:45.000 --> 03:11:50.000

surveys from students who did not return to us.

03:11:50.000 --> 03:11:51.000

Who are they? Why didn't they come back?

03:11:51.000 --> 03:11:53.000

Can we get some of that qualitative information so that

03:11:53.000 --> 03:12:05.000

we can respond to that? Then I would say, especially

03:12:05.000 --> 03:12:10.000

over the last year and a half, we have worked hard, especially

03:12:10.000 --> 03:12:15.000

in our student access and involvement in success area,

03:12:15.000 --> 03:12:17.000

which is our student affairs

03:12:17.000 --> 03:12:18.000

area, worked hard with our counselors who are at the front

03:12:18.000 --> 03:12:24.000

line to tell us what they are hearing from students. For those

03:12:24.000 --> 03:12:25.000

students who don't want to opt in to the kinds of

03:12:25.000 --> 03:12:26.000

surveys Dr. Harding was talking about, can we get at what they

03:12:26.000 --> 03:12:31.000

are talking about in a different way? I'm sure I am not alone

03:12:31.000 --> 03:12:33.000

when I talk about when our mental

03:12:33.000 --> 03:12:42.000

health counselors have been working more than 24 hours as

03:12:42.000 --> 03:12:47.000

well as all of our academic counselors, our staff who deal

03:12:47.000 --> 03:13:03.000

with students on the front line. They have their fingers on the

03:13:03.000 --> 03:13:07.000

pulse of what is happening within our specific student

03:13:07.000 --> 03:13:10.000

populations and more broadly.

03:13:10.000 --> 03:13:15.000

Kevin: Dr. Torrence, only because I know that you have

03:13:15.000 --> 03:13:20.000

done some great things in this area, I'm going to go off gives

03:13:20.000 --> 03:13:25.000

a little more, I'm going to pose one question to you. Technology

03:13:25.000 --> 03:13:28.000

is a great equalizer.

03:13:28.000 --> 03:13:33.000

But access to technology is not equitable.

03:13:33.000 --> 03:13:34.000

How do the panelists, or each of you, but I'm going to directed

03:13:34.000 --> 03:13:37.000

to you -- how do we increase access to relevant technology

03:13:37.000 --> 03:13:42.000

tools for all students at their institutions?

03:13:42.000 --> 03:13:47.000

☒MICHAEL: I love the softball. Whoever asked that question,

03:13:47.000 --> 03:13:51.000

thank you. Access is not equity. Take that to the bank.

03:13:51.000 --> 03:13:54.000

Access is not equity. Everybody needs a different

03:13:54.000 --> 03:13:59.000

type a box, everybody needs a different type of door.

03:13:59.000 --> 03:14:01.000

We are not the same shape, height, weight, eye color,

03:14:01.000 --> 03:14:06.000

ethnicity, religious ideology, etc.

03:14:06.000 --> 03:14:07.000

Access in terms of use of technology, I'm thinking about

03:14:07.000 --> 03:14:13.000

paradigm shifting. Bear with me, look it up if you don't know

03:14:13.000 --> 03:14:15.000

about it.

03:14:15.000 --> 03:14:18.000

PPT -- GTP3, GTP4, these are they which a eyes. If you want

03:14:18.000 --> 03:14:23.000

to help students, get engaged with the future of learning.

03:14:23.000 --> 03:14:27.000

Talk about personal sovereignty as a way to decentralize and

03:14:27.000 --> 03:14:32.000

create ownership for our students in their data. How

03:14:32.000 --> 03:14:37.000

about that for a Paradigm chef? Students own their data and

03:14:37.000 --> 03:14:40.000

they get to

03:14:40.000 --> 03:14:49.000

☒[INDISCERNIBLE]

03:14:49.000 --> 03:14:53.000

Over the use of their data by alphabet, Amazon, whoever is

03:14:53.000 --> 03:14:58.000

using their data. Personal sovereignty and students own

03:14:58.000 --> 03:15:02.000

their data. I think a lot of people would leave not just

03:15:02.000 --> 03:15:07.000

without debt, but they would the fin the black from institutions

03:15:07.000 --> 03:15:08.000

of higher education. Earners versus owners.

03:15:08.000 --> 03:15:13.000

Do your students understand the ideology behind being an earner,

03:15:13.000 --> 03:15:15.000

I work for some entity, I am an agent of some state or some

03:15:15.000 --> 03:15:20.000

entity, versus ownership? I will give the sport analogy

03:15:20.000 --> 03:15:26.000

because it is the one I can both understand because if you don't

03:15:26.000 --> 03:15:27.000

play a sport, I would use music but we had time for sports. When

03:15:27.000 --> 03:15:31.000

my son talks about he wants to play for a team or a coach or a

03:15:31.000 --> 03:15:36.000

professional team, I ask him the question, I asked my daughter

03:15:36.000 --> 03:15:41.000

the same question, why don't you want to own the

03:15:41.000 --> 03:15:44.000

team and watch those who play the game that you enjoy

03:15:44.000 --> 03:15:48.000

participating in it? You can play with them whenever you want

03:15:48.000 --> 03:15:49.000

if you are paying them and when you own the team, you can say, I

03:15:49.000 --> 03:15:54.000

want to get in on display. Ownership versus earning.

03:15:54.000 --> 03:15:56.000

Can you be an owner and an earner at the same time?

03:15:56.000 --> 03:15:57.000

Absolutely, but we need to push not just the concept of

03:15:57.000 --> 03:15:59.000

entrepreneurship at entrepreneur thinking. That is the paradigm

03:15:59.000 --> 03:16:01.000

shift technology is taking.

03:16:01.000 --> 03:16:06.000

That connection between VR, AR, the ability to create code

03:16:06.000 --> 03:16:08.000

across all disciplines, whether you are in humanities, the stem

03:16:08.000 --> 03:16:09.000

fields, having that skill set is going to be important. I will

03:16:09.000 --> 03:16:14.000

end with three questions for the group, not our group, but the

03:16:14.000 --> 03:16:25.000

people listening. What integrative AI functions

03:16:25.000 --> 03:16:29.000

would a device utilize to serve as

03:16:29.000 --> 03:16:31.000

☒[INDISCERNIBLE]

03:16:31.000 --> 03:16:36.000

☒For human development? Number two, is everything thing

03:16:36.000 --> 03:16:47.000

which-based? If it is -- language-based?

03:16:47.000 --> 03:16:52.000

If it is, where does our encoding evolve?

03:16:52.000 --> 03:16:54.000

We are a mathematical-based society, but we don't spend

03:16:54.000 --> 03:16:55.000

time explaining in what I would say -- we lack the ability to

03:16:55.000 --> 03:16:57.000

explain on a larger scale equations and we use language as

03:16:57.000 --> 03:17:00.000

the teardrops of mathematics to converse with each other. That

03:17:00.000 --> 03:17:05.000

is my paradigm shift. Thank you.

03:17:05.000 --> 03:17:07.000

☒Kevin: can you repeat your three questions again for the group?

03:17:07.000 --> 03:17:12.000

☒MICHAEL: sure.

03:17:12.000 --> 03:17:14.000

What integrative AI functions would device is utilized to

03:17:14.000 --> 03:17:24.000

serve as a maximizer of human development? If everything is

03:17:24.000 --> 03:17:27.000

language-based, where does incoding evolve? And since we

03:17:27.000 --> 03:17:31.000

lack the ability to explain concepts through equations on a

03:17:31.000 --> 03:17:33.000

broader base, aren't words just the literal tears of

03:17:33.000 --> 03:17:38.000

mathematics?

03:17:38.000 --> 03:17:43.000

I know that is a lot to unpack, but you asked for it, so you got

03:17:43.000 --> 03:17:48.000

it.

03:17:48.000 --> 03:17:55.000

☒Kevin: OK. Very quickly, you mentioned

03:17:55.000 --> 03:17:56.000

this before, great shout out to Westchester community College

03:17:56.000 --> 03:17:57.000

and a great question from one of your colleagues. Westchester

03:17:57.000 --> 03:18:00.000

community College has a new grand, professional development

03:18:00.000 --> 03:18:05.000

for culture responsive technician education.

03:18:05.000 --> 03:18:12.000

Could the panelists address how faculty and others at their

03:18:12.000 --> 03:18:17.000

institutions are being supported in learning how to

03:18:17.000 --> 03:18:34.000

implement better behaviors and strategies to foster a campus

03:18:34.000 --> 03:18:41.000

and a climate that is conducive to diversity, equity, and

03:18:41.000 --> 03:18:46.000

inclusion at all levels?

03:18:46.000 --> 03:18:50.000

I will start with you without one. -- with that one.

03:18:50.000 --> 03:18:54.000

☐FLOYD: one of the things we have done is we are starting the

03:18:54.000 --> 03:18:59.000

movement to an antiracist curriculum. What does that mean

03:18:59.000 --> 03:19:01.000

for us? What does the lift look like for faculty? How do we go

03:19:01.000 --> 03:19:05.000

about doing that?

03:19:05.000 --> 03:19:10.000

Leaning into culturally responsive teaching and

03:19:10.000 --> 03:19:14.000

practices. One example of what we have

03:19:14.000 --> 03:19:19.000

been able to do is low hanging fruit, a couple years ago, we

03:19:19.000 --> 03:19:21.000

started with our psychology 101

03:19:21.000 --> 03:19:22.000

course and took that course and we revamped the physicality of

03:19:22.000 --> 03:19:24.000

the course -- so two things. Number one, we did open

03:19:24.000 --> 03:19:28.000

educational resources.

03:19:28.000 --> 03:19:33.000

We make sure that every resource is already embedded in the

03:19:33.000 --> 03:19:34.000

online course. There was no cost for books, there was no

03:19:34.000 --> 03:19:36.000

additional materials necessary. Across-the-board, we are

03:19:36.000 --> 03:19:41.000

looking to figure out, what does it take to make sure that we can

03:19:41.000 --> 03:19:42.000

move just about all of

03:19:42.000 --> 03:19:51.000

our courses to OER, because that eliminates a financial barrier.

03:19:51.000 --> 03:19:55.000

Number two, the psychology course I was mentioning, we

03:19:55.000 --> 03:20:01.000

started with the psychology course and what we were able to

03:20:01.000 --> 03:20:02.000

do is, at the time, we changed our orientation -- retention

03:20:02.000 --> 03:20:10.000

starts at orientation. We changed our orientation to

03:20:10.000 --> 03:20:13.000

the course where had video introductions and a lot of our

03:20:13.000 --> 03:20:18.000

administrators, people of color, so we did a psychology course

03:20:18.000 --> 03:20:22.000

pilot for minority male students specifically and what we found

03:20:22.000 --> 03:20:35.000

is in that pilot, after we changed the images in

03:20:35.000 --> 03:20:37.000

the online resource, we kept the concepts the same, we kept the

03:20:37.000 --> 03:20:42.000

stories and scenarios and case studies the same, all we

03:20:42.000 --> 03:20:47.000

really did is change the physicality of the pictures so

03:20:47.000 --> 03:20:52.000

that representation matters.

03:20:52.000 --> 03:20:55.000

What we found is that students of color, our minority male

03:20:55.000 --> 03:20:58.000

students in our students who were unidentified and are white

03:20:58.000 --> 03:21:03.000

students all performed better in an experimental group than they

03:21:03.000 --> 03:21:06.000

did in the control group with the inclusive images and

03:21:06.000 --> 03:21:08.000

inclusive stories.

03:21:08.000 --> 03:21:13.000

What we have done now is we are in the process of what does that

03:21:13.000 --> 03:21:18.000

mean to create a psychology course for LGBT

03:21:18.000 --> 03:21:21.000

students, a course for women? So looking at our special, most

03:21:21.000 --> 03:21:24.000

vulnerable populations, going

03:21:24.000 --> 03:21:29.000

back to our data, who is underperforming, and what does

03:21:29.000 --> 03:21:35.000

it mean to be able to create -- keep a lot of the content the

03:21:35.000 --> 03:21:38.000

same, our learning outcomes the same, but making sure that we

03:21:38.000 --> 03:21:42.000

are presenting materials that are representative of stories

03:21:42.000 --> 03:21:48.000

and of experiences so our learners can feel connected to

03:21:48.000 --> 03:21:50.000

the class? Those are two things we are looking into.

03:21:50.000 --> 03:21:55.000

Looking to lean into the idea of an antiracist curriculum and

03:21:55.000 --> 03:22:00.000

augment our CRP and CRT and also specifically looking into OER

03:22:00.000 --> 03:22:06.000

resources.

03:22:06.000 --> 03:22:11.000

☒Kevin: in the essence of time, I want to stay on track.

03:22:11.000 --> 03:22:14.000

One last question for our panelists before I turned back

03:22:14.000 --> 03:22:19.000

over to Marion and additional Q&A if we have time. What final

03:22:19.000 --> 03:22:24.000

words of advice would you give to those

03:22:24.000 --> 03:22:32.000

practitioners who are committed to successful DEI practices at

03:22:32.000 --> 03:22:34.000

their respective institutions related to workforce technology

03:22:34.000 --> 03:22:39.000

and economic development? Tere, I will start with you.

03:22:39.000 --> 03:22:41.000

☒TERE: thank you.

03:22:41.000 --> 03:22:44.000

For so many of our students, the community college is and

03:22:44.000 --> 03:22:49.000

has been a safe haven, and we found that even during these

03:22:49.000 --> 03:22:51.000

last 16 months, while we were not there for them physically in

03:22:51.000 --> 03:22:53.000

many ways, we have been there for them and we have an

03:22:53.000 --> 03:22:58.000

obligation to have been there for them.

03:22:58.000 --> 03:23:04.000

I feel strongly that we can be what binds our students together

03:23:04.000 --> 03:23:09.000

during this time, what allows them to continue to be so

03:23:09.000 --> 03:23:18.000

resilient, which so many of them have been during the

03:23:18.000 --> 03:23:21.000

course of the pandemic in the last year and a half for all of

03:23:21.000 --> 03:23:34.000

us. I don't have advice, per se.

03:23:34.000 --> 03:23:36.000

I know that we can make change happen for our students and we

03:23:36.000 --> 03:23:41.000

can be the champions and the foundation for their success.

03:23:41.000 --> 03:23:42.000

Let's look at everything -- let's look at our student body

03:23:42.000 --> 03:23:44.000

in our communities from that asset base that we all talk

03:23:44.000 --> 03:23:46.000

about when we talk about DEI and created that a sense of

03:23:46.000 --> 03:23:48.000

belonging that Dr. Torrence and Dr. Hardin have talked about.

03:23:48.000 --> 03:23:53.000

☑Kevin: thank you.

03:23:53.000 --> 03:23:56.000

Dr. Hardin? FLOYD: I would say lean into stories. Diversity is

03:23:56.000 --> 03:24:03.000

not a monolith. As a diversity practitioner, I

03:24:03.000 --> 03:24:08.000

try to stay away from the word diversity because it can be

03:24:08.000 --> 03:24:14.000

polarizing sometimes. I like to use the idea of accessibility.

03:24:14.000 --> 03:24:17.000

No matter where you are politically, religiously,

03:24:17.000 --> 03:24:20.000

ethnically, we all want access to success, whatever that may

03:24:20.000 --> 03:24:25.000

look like for us.

03:24:25.000 --> 03:24:28.000

Dr. Torrence set it eloquently, access is not necessarily

03:24:28.000 --> 03:24:33.000

actively -- not necessarily equity. But it gets us into the

03:24:33.000 --> 03:24:36.000

room. It may not be the room that we want to stay in, but it

03:24:36.000 --> 03:24:49.000

gets us there. The most important thing is

03:24:49.000 --> 03:24:55.000

understanding that there is no black experience that is a

03:24:55.000 --> 03:24:58.000

monolith, there is no LGBT experience that is a monolith,

03:24:58.000 --> 03:25:02.000

there is no women's story that is a monolith. Every story

03:25:02.000 --> 03:25:03.000

matters.

03:25:03.000 --> 03:25:07.000

We are moving our institutions into social justice institutions

03:25:07.000 --> 03:25:10.000

and walking the walk of inclusivity.

03:25:10.000 --> 03:25:15.000

It is important that as both my colleagues said, we need to know

03:25:15.000 --> 03:25:21.000

our students by their names, we need to know there's

03:25:21.000 --> 03:25:25.000

two ways -- know their stories, so while they may be LGBTQ, they

03:25:25.000 --> 03:25:29.000

are also a veteran. Does that mean for them?

03:25:29.000 --> 03:25:32.000

When we know the stories, when we understand that there is no

03:25:32.000 --> 03:25:37.000

one single way to experience one of these demographic

03:25:37.000 --> 03:25:39.000

experiences, we can better allocate resources to help that

03:25:39.000 --> 03:25:44.000

student, to help that learner in the way that makes the most

03:25:44.000 --> 03:25:47.000

sense for them. I would say Leslie and into stories and

03:25:47.000 --> 03:25:49.000

understand that diversity is not a monolith.

03:25:49.000 --> 03:25:51.000

Kevin: thank you.

03:25:51.000 --> 03:25:56.000

Dr. Torrence? MICHAEL: I would echo everything my colleagues

03:25:56.000 --> 03:25:59.000

have said and also add that we have to beg the question, once

03:25:59.000 --> 03:26:02.000

we get through the dialogs and get to reviewing data that we

03:26:02.000 --> 03:26:04.000

can assess and enhance, we have to beg the question, how do we

03:26:04.000 --> 03:26:09.000

continue to make this better?

03:26:09.000 --> 03:26:10.000

This is in quotation marks, because as I said, let's do some

03:26:10.000 --> 03:26:12.000

paradigm shifting. If there are federal

03:26:12.000 --> 03:26:13.000

regulations, if there are state regulations, if there are

03:26:13.000 --> 03:26:16.000

guidelines and policies that we follow that are barriers to

03:26:16.000 --> 03:26:21.000

student success, let's Champion to change them. That is not

03:26:21.000 --> 03:26:30.000

asking too much. That is a simple thing.

03:26:30.000 --> 03:26:32.000

I want people to be successful, successful for people who look

03:26:32.000 --> 03:26:33.000

like me and don't look like me as they define it, as it should.

03:26:33.000 --> 03:26:44.000

Success should evolve depending

03:26:44.000 --> 03:26:50.000

on the opportunities for advancement for our graduates

03:26:50.000 --> 03:26:51.000

and for those who work with thousand get the skills that

03:26:51.000 --> 03:26:56.000

they need and say, we are going to become an entrepreneur.

03:26:56.000 --> 03:27:00.000

Our conversations are about belonging, it is not simply

03:27:00.000 --> 03:27:03.000

about those in which we serve, which is the student population

03:27:03.000 --> 03:27:06.000

and our communities, philanthropic organizations, it

03:27:06.000 --> 03:27:08.000

is also about the people that you work shoulder to shoulder

03:27:08.000 --> 03:27:13.000

with every day. It begins with each one of us, with each one of

03:27:13.000 --> 03:27:22.000

you listening to this panel. What are you going to do today

03:27:22.000 --> 03:27:27.000

to advance the mission of belongingness and a real sense

03:27:27.000 --> 03:27:32.000

of self and camaraderie and collegiality in institutions and

03:27:32.000 --> 03:27:37.000

beyond? That is an important caveat to

03:27:37.000 --> 03:27:41.000

think through, that a lot of times we are waiting for

03:27:41.000 --> 03:27:45.000

Superman and there is no one coming with tights and a cape to

03:27:45.000 --> 03:27:49.000

save us from the things that we know we need to do. Let's stop

03:27:49.000 --> 03:27:52.000

talking about it and let's do it.

03:27:52.000 --> 03:27:55.000

Kevin: thank you.

03:27:55.000 --> 03:27:58.000

To all of my panelists, Tere, Dr. Hardin, Dr. Torrence, I

03:27:58.000 --> 03:28:03.000

cannot thank you enough. If you could just look in the chat, all

03:28:03.000 --> 03:28:05.000

of the comments that we are getting, we actually did

03:28:05.000 --> 03:28:06.000

not need questions, the audience and the participants are filling

03:28:06.000 --> 03:28:11.000

it up because we know that this is such an important topic.

03:28:11.000 --> 03:28:14.000

I want to thank you for taking time out of your day to share

03:28:14.000 --> 03:28:18.000

with us the great work that you are doing at your institutions

03:28:18.000 --> 03:28:21.000

and the sharing of your best practices. To all of the

03:28:21.000 --> 03:28:26.000

participants, we want to thank you for joining us. We enjoyed

03:28:26.000 --> 03:28:32.000

doing this and working with you. I would like to wish everyone a

03:28:32.000 --> 03:28:37.000

good afternoon and I'm going to Turkic -- I'm going to turn it

03:28:37.000 --> 03:28:42.000

back over to Mary.

03:28:42.000 --> 03:28:44.000

☞>> I cannot say anything more than what Dr. Christian just

03:28:44.000 --> 03:28:46.000

said. I am grateful for all of you for being here and sharing

03:28:46.000 --> 03:28:56.000

your thoughts with us, thank you very much.

03:28:56.000 --> 03:29:00.000

What a great day, day one, going out in fantastic style. With

03:29:00.000 --> 03:29:04.000

that, I'm going to go ahead and handed over to our conference

03:29:04.000 --> 03:29:09.000

chair for closing remarks.

03:29:09.000 --> 03:29:10.000

☞>> thank you, and thank you to everyone for attending day one

03:29:10.000 --> 03:29:15.000

of this HI-TEC conference. I echo everyone's thoughts.

03:29:15.000 --> 03:29:21.000

Amazing panels. Thank you to our presenters and our keynote.

03:29:21.000 --> 03:29:26.000

We hope all of you have enjoyed our program as much as we have

03:29:26.000 --> 03:29:34.000

and we look forward to seeing you back here tomorrow at noon

03:29:34.000 --> 03:29:39.000

Eastern as we continue with our

03:29:39.000 --> 03:29:44.000

second keynote speaker, Jessica Gomez, and agreed panel of

03:29:44.000 --> 03:29:49.000

faculty and students entitled, I sure hope this persists,

03:29:49.000 --> 03:29:54.000

students and educators share strategies from the past year.

03:29:54.000 --> 03:29:59.000

Please take a moment to complete our conference survey which you

03:29:59.000 --> 03:30:04.000

will see as you exit the zoom presentation. Your input is

03:30:04.000 --> 03:30:09.000

important to us and helps us to shape future conferences.

03:30:09.000 --> 03:30:14.000

I hope everyone has a wonderful evening and we look forward to

03:30:14.000 --> 03:30:19.000

seeing you tomorrow. Bye-bye.

03:30:19.000 --> 03:30:49.000

🎵[music]