

Ramona Schindelheim, WorkingNation editor-in-chief:

You're listening to Work in Progress. I'm Ramona Schindelheim, editor-in-chief of WorkingNation. Work in Progress explores the rapidly changing workplace through conversations with innovators, educators, and decision-makers; people with solutions to today's workforce challenges. It bills itself as the world's most powerful technology event, and it's taking place all this week in Las Vegas, and it is definitely big. CES brings together 4,000 plus exhibitors and more than 130,000 business leaders, industry experts, and policymakers to show off the technology of today and tomorrow.

Gary Shapiro is CEO and vice chairman of the Consumer Technology Association, which runs CES. In this episode of Work in Progress, Gary and I explore the impact of tech breakthroughs on our lives and the way we work. We also examine how to prepare all Americans for the jobs being created by new technology and the skills needed to do them. Our conversation starts as many workforce conversations start today with a look at artificial intelligence.

Gary Shapiro, Consumer Technology Association:

We'll see a lot of discussion about AI, specifically generative artificial intelligence, which clearly is changing the world of work, of manufacturing, of creation, of safety, of health, of virtually everything that's represented at CES. There'd be a big focus on that, including, actually, a whole panel session on workforce readiness and artificial intelligence. AI and workforce will be used in the same sentence many times at CES.

Ramona Schindelheim, WorkingNation editor-in-chief:

When I was at CES last year, I was out on the exhibit floor and I noticed that nearly every booth had a banner that said AI, AI, AI. What's changed in 12 months? How has that been integrated into technology and the way people do their jobs? How has that reshaped it?

Gary Shapiro, Consumer Technology Association:

Well, AI has been around for many, many, many years. It flies 95% of the flights we take on airplanes. But what changed a little over a year and a half ago was this shift to ChatGPT where anyone with a computer could actually use generative AI that could learn from databases, so the potential is huge. And a lot of companies, as they want to, jumped on it first and they figured out a lot of the reports they pay a lot of people to do could be written in a matter of hours with just some simple programming and databases and you'll get analysis if you fed in the prior reports. Those kinds of things are changing the workforce and what some people do, and it's freed them up to do other higher-level things rather than prepare similar reports all the time.

But it's gotten way further than that. It's got into how you analyze your effective marketing as a company. You know what works very quickly. You could do ABC comparisons and get a response overnight. You could turn it into a marketing campaign, you could write a story on it. You could do so many different things. And also obviously in the factory itself, the factory automation is using AI, healthcare is using AI to analyze different ways of solving disease. It's also analyzing what we're doing since the start of COVID with remote and telehealth. And remote sensing AI is coming in to figure out when you should go to the hospital. It's hard to come up with parts of our lives that are not going to be affected by AI.

Ramona Schindelheim, WorkingNation editor-in-chief:

I love that you said that AI has been around for a while because when the terms first came out, and they use ChatGPT interchangeably with it all the time, but AI has been around for a long time. When we Google something, we are searching on the internet for something, that's how that is generated, obviously. They use artificial intelligence to find it. But in this new way, this ChatGPT, it's putting that tools into the hands of the consumer now, it seems, more directly.

Gary Shapiro, Consumer Technology Association:

Absolutely, Ramona. You are totally correct. The consumer now has access to this powerful tool that in a sense didn't exist for anyone in the world 20 or 30 years ago. And even just to the business community, it was just a few years, but now, wow, you could do all sorts of things. And it raises questions. Some schools are banning AI, some schools are accepting it, some workers are concerned about it, some workers are embracing it to be able to do tasks that they are repetitive or that they've just done before. It allows a whole new level of creativity and innovation, which I think is very exciting.

Ramona Schindelheim, WorkingNation editor-in-chief:

Do you share any of those concerns that this can change the way people work? I know it frees people up, but people are fearful that they're going to lose their jobs.

Gary Shapiro, Consumer Technology Association:

I'm excited about AI, but I also understand legitimate concerns. There is a natural fear that we have as human beings when things change. But things are always changing, and that's been the case. And what's made humans survive is our adaptability to new situations. And we keep improving. If it wasn't for technology, the odds would be overwhelmingly high that you and I would not be alive at this moment because most people lived into their 20s and we harness fire, which allowed us to cook meat, we built structures, we created a hammer, we created everything all the way up to a printing press which allowed us to exchange information and pass our knowledge to the invention of all sorts of mobility devices like cars and planes and all sorts of things, and then communications devices, which allowed us to communicate long distances and store information and figure out what works and what doesn't and get our teeth fixed and our viruses taken care of. Our average age is phenomenal in terms of our lifetime all because of innovation and technology. But it doesn't mean it's not without risk. A hammer, an ax, a car, a plane, they could be used to do great things and they could be used to do horrible things.

We develop government and social structures, which allow us to regulate how they're used and to penalize people to do it poorly. Certainly with AI and even the internet itself, it becomes a little trickier. We're dealing with cyber security, we're dealing with, certainly there's bad actors that are going to try to do things. I wouldn't call it a game, but we're always trying to build a smarter mousetrap and the mice keep getting smarter. And we have to keep moving forward and we have to use generative AI to fight the bad uses of AI.

And I think what some of the governments are doing around the world, specifically the European government and even the US government, which has taken a pretty much bipartisan approach, is they're being very thoughtful in what they're doing. Europe's already made its decision that they're going to allow AI, but it's going to be very expensive to get into AI with all sorts of rules and hundreds of pages of laws. And the Europeans like regulation, and they love protecting your privacy, but they don't have a lot of innovation as a result. On the other hand, the Chinese, they have huge amounts of data which is necessary for AI, and they're not very big on privacy and they have a different way of looking at the world than we do. The Chinese are going to do very well in AI, and I think there are legitimate

concerns. And that's what a lot of our government is talking about on a bipartisan basis about what we should be doing in terms of China and protecting the US and our allies.

There's a lot of talk about changes in administration and things like that, but there's really a consistency there in terms of how we approach these issues that have gone on from Obama to Trump to Biden. And I think we'll go on with Trump again is because these are highly detailed, very interesting but data-rich discussions. But the US is blessed to have some of the top creative people in the world focusing on some of these issues.

What I lose sleep about is not that AI will destroy the world, because it won't, but rather that we will do things where we over-regulate so that important developments in healthcare and mobility and safety will not be implemented because we'll choke off some regulation or we'll stop a startup from occurring. And that's what we focus on is trying to make sure innovation can occur that will make the world better. We've partnered with United Nations on fundamental human securities like access not only to healthcare, clean air, clean water as well as food, but also the UN last year added, at our request, another fundamental human security, which is access to technology, because it really does fundamentally change people's lives.

Ramona Schindelheim, WorkingNation editor-in-chief:

I like the idea that we have to look at let's not tamper down business and innovation, but let's put guardrails in that makes sure we protect probably the most vulnerable people out there who might be negatively impacted by innovation in the wrong hands.

Gary Shapiro, Consumer Technology Association:

Absolutely. That's a great way of saying it.

Ramona Schindelheim, WorkingNation editor-in-chief:

After the election in November, CTA put out a statement of some of the priorities that encouraged the new administration to embrace. And I know one of them was strengthening STEM education and workforce development to prepare Americans of all backgrounds for the jobs of tomorrow. And I like to say the jobs of today because I think there are a lot of jobs that are still open and they still need to be filled, but maybe there's not the skilled workforce. How do you see that coming about? Who's leading that?

Gary Shapiro, Consumer Technology Association:

Well, I think there's a bipartisan consensus that jobs are important, that training people for the right jobs is important. We certainly worked very closely with the last Trump administration to focus on white collar participants, just not blue collar ones. And there's been a lot of growth in the tech industry on having people come in from diverse parts of life, whether they're older and returning to the workforce or veterans or they come from troubled circumstances and college may not be their answer, companies are willing to hire people and they are willing to be trained to work on IT different things where you don't need a college degree.

In the Trump administration, last time through really through Ivanka Trump led the way in changing the law so that federal government contracts did not require for IT specific college degrees, that inside training in a company is an alternative. And as a result of that, many state governors, if not most have adopted the same policy for state government procurement in the IT area that federal and state governments are enormous purchasers. And that's paved the way for all sorts of people to enter the

workforce without having to go to college either because they can't afford to or they didn't want to or to life circumstances, whatever it is. And companies win because they get to train someone and then hire them with the skills that they need. And the person obviously wins because they get paid during the apprenticeship. That's one way that's very big. And IBM was a huge leader in that, but it spread to so many of our companies. And IBM actually shared how they did that with all our companies. That's super important.

Research shows that generally the US is extremely hardworking workforce. We're very creative, we're very innovative, and we're among the most diverse in the world, which has its benefits, the benefit being you get a lot more creativity, a lot more problem solving from a diverse set of people. The challenge is, as we're seeing somewhat in our nation playing out, is we are not a country with a thousands and thousands a year history with a homogeneous population where we share the same moral and cultural values. We are an immigrant nation. We will have, for the most part, attracted people here who want a better life. And those immigrants have actually done a phenomenal job not only keeping the country going, but also creating new businesses and new companies. And in my world of the tech world, they are so disproportionately represented as founders and creators and even at the first generation level.

When we look at our resources a nation, we have to look at our immigrants, we have to look at our students, we have to look at what the colleges are doing, and we have to look at the jobs that are needed and keep filling those disconnects. And that's very important. I think we're in a great position as a nation, but we can't be complacent; we have to focus on the future and we have to recognize that our top position in the world is not always going to be there if we just take it for granted.

Ramona Schindelheim, WorkingNation editor-in-chief:

In that idea, I love that there is not one career pathway for one person, that it's unique to each person. That immigrant maybe having a different pathway, that person who doesn't want to go to college or can't afford to go to college but trying to create an infrastructure, a system that gives everybody the opportunity to thrive, and technology is a way to do it. I think there's a lot of jobs out there that are open, and a lot of them need people who have those skills, so being able to help that workforce I think is very important as well.

Gary Shapiro, Consumer Technology Association:

Absolutely. We're a bright nation, we're an eager nation, we're a hard working nation, and we have a can-do attitude culturally. And we recognize that even if you try something and you fail, for example, a startup, you've gained tremendous valuable experience. And that's pretty unique in the world to be so diverse, so willing to recognize that you are the sum of your life experiences, which make you better and better as you grow older.

And as I grow older, that's a more important point that I try to make, we recognize that people are different. Now, obviously that's not true everywhere in the country, and there's people that have different views and we're arguing over things that most countries don't argue over because they're so homogeneous and they share a religion or a culture. Heterogeneity is a strength and it's a challenge, but I think overall I'd much rather have country we have than live in one of these where everyone marches in the same direction and does everything the same way and thinks the same way. That's not a recipe for innovation.

Ramona Schindelheim, WorkingNation editor-in-chief:

This fall you released a book, Pivot or Die. And it's about changes in technology and society. I think that's a great title. Tell me about your book.

Gary Shapiro, Consumer Technology Association:

Pivot or Die: How Leaders Thrive When Everything Changes is a book just released that goes into the fact that we all have to make big decisions in our lifetime and in our careers and for companies. And it traces a history of some of the big decisions companies have made and why they've made them. And it seems to be those decisions for businesses are accelerating as the environment around us changes us as our competition becomes global, as our products allow competition from anywhere. And a lot of companies go out of business. That is the American way, but it does affect people's lives.

And it's a how-to book for anyone in business or in their personal lives to look at decision-making and resist the desire we naturally have as humans to stick to the status quo and think that everything's going to always be the same, whether it's our families and our parents staying alive or it's what happens in businesses. And it's a change mindset. And especially given last November's election where everything is rapidly changing, we have to adapt, we have to adjust, we have to plan. And as people, as groups of people with common views or as businesses, we have to be willing to work quickly.

And it also makes a point that when you're a startup, you actually have an advantage over the bigger company which moves slowly. And that's important. As an individual, you're making decisions which are so critical, which define the arc of your life. The biggest decisions are whether to commit a felony or whether to do something extremely unsafe and who you marry or whether to marry and whether or not and how many children you have. Those are four huge decisions that are really important.

On the other hand, there's some decisions which are really less important that kids stress overnight. Talk to a lot of younger people, what college you go to, what made you go to, what your first job is, these are things which are, yes, they're important in a way because it randomly kind of determines the experiences you'll have, but every experience you have, every job you have helps you get to know yourself better and teaches you different skills. And a lot of the angst that younger people have, my goal is to help alleviate a little bit of that and let them know that if they are lifelong learners. If they do work hard, if they're willing to change what they're doing and figure things out, then they have a great chance at an enriching and successful job or career, which is just not a way of clocking hours so you could do something else with your free time.

Ramona Schindelheim, WorkingNation editor-in-chief:

I think it's probably easier to get to that younger person sometimes than to that mid-career person if you're talking to an individual because if you start doing something and this is the way you thought that pathway was going to go, it can be frightening when that changes when something changes. But I think the people who thrive are those people who are adaptable, who are those lifelong learners.

Gary Shapiro, Consumer Technology Association:

Absolutely. But people do have mid-career changes, but it's difficult when you have a mortgage and you have a family and people are depending on you to make serious changes in it. When I meet people that just feel stuck in what they have to do for financial reasons, it's sad because you spend so much time at your job of your waking hours, it should be something which enriches you somehow, whether you're making the world better and you're getting psychic satisfaction or you actually enjoy what you're doing.

One of the defining moments in my life was I spent the summer behind a microscope looking and measuring computer tape heads. And I realized I had no interaction with anybody. And my ah-ha

moment was I need people. I enjoy the quiet of a library and writing and doing stuff, but I am a social person and I get my energy when I wake up from having that type of interaction.

And one of the questions I ask people is, "What is it you look forward to about your job? What is it you dread? What is it when you wake up in the morning do you want to go to work?" And those are questions which help determine what kind of career you should have, what you should do. It's not just about the work to make money, which sadly I know a lot of people have to do, but you do make some of those decisions early in life. But as long as you're gaining experience and perspective which you use elsewhere and learning about yourself, I think it's a good thing.

Ramona Schindelheim, WorkingNation editor-in-chief:

I know there are a couple other areas that are going to be big at CES, including the energy transition, vehicles, mobilities. Talk a little bit about what you see out there that we're going to see on the floor.

Gary Shapiro, Consumer Technology Association:

Every CES, we do a few things cooler and better and respond to the existing and trends and environment as we see, because we are a platform; we want to give our customers and our audience a vision into the future, a glimpse. And there is one big area that we really haven't focused on before because we've left it to the energy providers, but energy creation and energy efficiency are two areas we'll be talking about a lot. We'll have a half-day conference on them because electric vehicles as well as quantum computing use lots of energy, and it's just not there right now. And they're going to solve so many of the world's problems. Self-driving cars obviously will empower disabled people. It'll allow them to be more productive in their cars and do anything from sleep to work. And quantum computing is a whole nother area that we'll also have a separate focus on with the Quantum Conference. That's the future, but all that requires energy.

And we will be talking about not only different ways of energy creation, including there's been a lot of focus in the nuclear area with Microsoft's announcement and others focusing on nuclear and Bill Gates' personal focus on nuclear. There's also a ways of having cloud computing and forms so they create less heat, they use less energy. We've done a lot in terms of the products themselves. We've worked with the federal government to have basically a label on products which meet certain standards for energy usage. We've also worked with private industry, like the cable industry to come up with voluntary standards as well. The Energy Star program the federal government has been very helpful for consumers to choose energy efficient products. But I think we all have an obligation to try to be somewhat careful and use energy, or as I tell my kids, "Turn out the lights when you leave the room," which my father used to tell me. And I'm probably as compliant as my kids are now, which is not a lot in terms of listening to your parents.

And we're also have a content creators focus on CES as well. We do a tremendous amount of what we call C-Space where we have the intersection of marketing technology and content creation. All the different platforms are there and all the different marketing tools to reach consumers quickly and precisely. But we also now have another area of the show in the other side of town where the content creators themselves will have a stage and talk about some of their issues and opportunities and solutions.

Ramona Schindelheim, WorkingNation editor-in-chief:

I'm here at CES. What's going to surprise me? What do you think is something new that I'm going to be going, "Wow"?

Gary Shapiro, Consumer Technology Association:

Well, if you've never been to CES, the whole gestalt, the whole thing will inspire you with optimism and give you hope for the future as humanity. You'll meet at Eureka Park literally hundreds of entrepreneurs with an idea that are exposing it to media, like yourself, and to investors and to... Shark Tank is there. And if you go by some of the big companies, you'll see, "I didn't know that big company did that."

But there are so many different technologies and visions of the future that either create energy, promote energy, solve fundamental health problems, which maybe even you or someone may have. And you'll see, "Oh my gosh, I didn't know that existed." It really depends who you are, who you know, what your issues are and what you want and how much you have dedicated time to walking around in good, comfortable shoes and just opening yourself to serendipity, which is the best thing about CES and other events like CES is it's just not about some of the information you could glean, which you can do online, and I am certainly the paid cheerleader for the tech industry, but being in person, as we learned during COVID, there's nothing like it. Seeing people, establishing relationships, seeing whether you trust them, being surprised, and discovery, which all that's very difficult to do online.

I look forward to the whole experience and the excitement. We literally have so many people from around the world, and they rely on CES for their businesses and their moving forward and they're expanding their lives and putting it all together. It's just making things better for the world. And that's why I'm so proud of our partnership with the United Nations focusing on fundamental human securities.

Ramona Schindelheim, WorkingNation editor-in-chief:

As a 20-year vet of CES, I say absolutely. I am always amazed every time I'm there.

Gary Shapiro, Consumer Technology Association:

Great. Well, we're so glad to have you. Have a great show.

Ramona Schindelheim, WorkingNation editor-in-chief:

Thank you. You too, Gary. That was Gary Shapiro, CEO and vice chairman of the Consumer Technology Association joining me to discuss how tech is changing the way we work. I'm Ramona Schindelheim, editor-in-chief of WorkingNation. Thanks for listening.