Women in Business and Technology
Transcript of Episode 036 - Exploring privilege and patenting with Mobile Device Architect Ginger Chien
Guests: Edaena Salinas, Ginger Chien

Summary: Sonia and Colleen kick off 2019 by sharing their New Year's resolutions. Our hosts chat with Edaena Salinas, the host of The Women in Tech Show podcast, about her show origins and how she sources great guests. Sonia interviews Mobile Device Architect, D&I Speaker, Rock Musician, Storyteller, and Science Wonk Ginger Chien about serial patenting and her commitment to greater workplace inclusion. Our hosts wrap the show with a look at how onscreen demographic trends translate at the Box Office.

Find audio and more information at Microsoft.com/WIBT

(Music.)

GINGER CHIEN (VOICEOVER): The most important thing to do is not believe that you know where you have to look, and instead, just start looking. You only know what you know, and if you haven't found your community yet, it's probably not in the things that you've already seen. And like I said before, this is your opportunity to go to the places that you might not be comfortable and explore groups, explore people, explore religions, explore communities and in that process, you will find things that, perhaps, awaken new senses of purpose.

VOICEOVER: You are listening to the *Women in Business and Technology* podcast from Microsoft. In each episode, you will hear from women in amazing technology and business roles as well as male allies who are helping make the industry more inclusive, and bringing you tips on how to build a successful career in a supportive community. Welcome to *Women in Business and Technology*. (Music.)

COLLEEN O'BRIEN: Welcome to Episode 36 of *Women in Business and Technology*. I'm Colleen O'Brien.

SONIA DARA: And I'm Sonia Dara.

COLLEEN O'BRIEN: We're kicking off the show in our Community Connect segment with a conversation that Sonia and I had with Edaena Salinas, the host of *The Women in Tech Show* podcast. I loved connecting with a fellow podcaster and hearing a little bit more about her approach to putting together that great show.

SONIA DARA: And then we'll dive into a conversation that I had with Ginger Chien, a mobile device architect, D&I speaker, rock musician, storyteller, and self-proclaimed

science wonk. We talk about everything from Ginger's background in electrical engineering to her work with Lesbians Who Tech. Be sure to stay tuned.

COLLEEN O'BRIEN: Finally, we'll wrap things up in our Cutting Edge segment with a conversation about gender representation in file and what that means at the box office. But before we get there, I just wanted to wish you a happy new year, Sonia!

SONIA DARA: Aw! Happy new year to you, too, Colleen. So, okay, what are your resolutions for this year?

COLLEEN O'BRIEN: Well, at the end of last year in December, I went through a training on transcendental meditation.

SONIA DARA: Ah, now I remember this. Yes.

COLLEEN O'BRIEN: So, I'm committing to 20 minutes of meditation twice a day.

SONIA DARA: Whoa!

COLLEEN O'BRIEN: Yeah. It's a big jump from what I was doing before. But I really enjoy it and it's nice to make that time and space to get settled before I dive into a really busy day. So, that's my resolution.

SONIA DARA: Nice. So, are you doing like one in the morning and then one in the evening?

COLLEEN O'BRIEN: Yeah, right before I eat. So, it's good to get tuned in before having a big meal. What are you going to commit to? What are your "resos"?

SONIA DARA: So, probably the biggest one is I'm committing to a full marathon now.

COLLEEN O'BRIEN: Oh, my goodness!

SONIA DARA: So, if our listeners remember, I committed to a half marathon last year and I did it in June. And I just -- it's kind of something I want to do before I turn 30, and I realize that's only a year. So, I have one year to do it. So, I'm going to commit to one in July.

COLLEEN O'BRIEN: Good for you.

SONIA DARA: Yeah.

COLLEEN O'BRIEN: Now that you have said it on the air, this is real. (Laughter.)

SONIA DARA: I know it's real! It's like ink on the Internet, yes.

COLLEEN O'BRIEN: All right. Well, I'm really excited for you. I'm going to keep you accountable.

SONIA DARA: Please do.

COLLEEN O'BRIEN: I hope that we can be accountability buddies.

SONIA DARA: Yeah, just text me, "Have you run today?" I'll appreciate that.

COLLEEN O'BRIEN: Listeners, happy new year. Tell us what your resolutions are and tell us how we can help you stay accountable. (Music.)

VOICEOVER: Community Connect, get involved and stay connected.

COLLEEN O'BRIEN: So, Sonia and I are here today doing a little duo Community Connect segment. And we are thrilled to welcome software engineer here at Microsoft, and host of the *Women in Tech Show*, Edaena Salinas. Edaena, welcome.

EDAENA SALINAS: Thank you for having me, Colleen and Sonia. It's a pleasure to be in this podcast.

COLLEEN O'BRIEN: Yeah, it's so cool to be talking to a fellow podcaster.

SONIA DARA: I know, a little cross-pollination, I love it.

COLLEEN O'BRIEN: Edaena, can you give us an introduction to the *Women in Tech Show*?

EDAENA SALINAS: The *Women in Tech Show* is a weekly podcast that I started in my free time where instead of talking about what it's like to be a woman in tech, we talk about technical topics, leadership, entrepreneurship, among other things. So, the goal is to shift from the "what does it feel like to be a woman in tech?" to other kinds of conversations.

COLLEEN O'BRIEN: Fantastic. Really, putting a focus on the achievements, the accomplishments, the knowledge, instead of the identity behind the person.

EDAENA SALINAS: Exactly.

SONIA DARA: So, why did you decide to start this project?

EDAENA SALINAS: One of the main reasons I started it was because I noticed women were talking about how they get invited to give talks at conferences and events, but the talks they get invited to give are about what it's like to be a woman in tech, diversity, or the so-called "lady panel."

COLLEEN O'BRIEN: Oh, no. (Laughter.)

EDAENA SALINAS: So, I started seeing this and some of them even put on their websites, "Please don't invite me to give the diversity talk or the lady panel. I'll be happy to talk about cloud computing, artificial intelligence, and so on." So, I started this as a way to raise awareness of what they're actually working on, among other topics. I think the diversity conversations are valuable, but I also think we can help the community more if we just have them talk about technology and leadership and entrepreneurship, regardless of the fact that they're women.

COLLEEN O'BRIEN: Yes.

SONIA DARA: I love that.

COLLEEN O'BRIEN: We totally love that. We support the mission 100 percent. You know, we've invited guests -- women, men, regardless of their gender identity into this studio to really investigate their work as well, and to talk to them about inclusion and to examine the work that these individuals are doing and not just the bodysuit that they happen to be in. I think it's much more interesting.

So, how did you go about choosing this medium of podcasting? We, over here, have a particular passion for the audio format, but why did you think this was the best way to bring these stories to life?

EDAENA SALINAS: The main reason was because I started listening to podcasts and I really like them, especially the one-hour to 30-minute formats, and I was learning a lot and growing in different areas.

And I just became a fan of the medium, and that's the main reason why I considered it. And also you can listen while you're doing other activities like doing laundry, washing dishes. So, it's something that doesn't require you to be looking at a screen to be engaged and learn something. That's also one of the things that I liked.

COLLEEN O'BRIEN: Yeah, we sometimes think about it as "ambient mentorship," like you can have these brilliant people in your ears while you are sweeping the floor or dusting the tabletops.

SONIA DARA: Commuting to work, exactly.

COLLEEN O'BRIEN: Yeah.

EDAENA SALINAS: Yeah, I also think sometimes that I'm listening to their phone conversations or something.

COLLEEN O'BRIEN: Yeah, it's really intimate.

EDAENA SALINAS: Yes.

SONIA DARA: So, you've been producing the show for two and a half years.

COLLEEN O'BRIEN: Congratulations.

SONIA DARA: Which is awesome. Congrats.

EDAENA SALINAS: Thank you.

SONIA DARA: So, what has been your most memorable interview?

EDAENA SALINAS: Yes, there is one that really impacted me. It's the one from a Carnegie Mellon researcher called Rita Singh. And what I found fascinating about that interview was that the problem that she as exploring, so to give some context about this, the Coast Guard officials who handle responses to mayday calls, which are sort of emergency calls, these calls can be very expensive. So, they were getting a lot of prank calls. They were a few seconds long. It was a person saying, "Mayday, mayday." So, I keep getting these calls.

They go to this researcher, Rita Singh, and tell her, "Can you give me some information about this?" Because she does a lot of artificial intelligence and machine learning in the audio format. So, she was able to determine that the person was in a warehouse, that there was a big window, the height, the ethnicity -- so, a lot of information.

SONIA DARA: Whoa!

EDAENA SALINAS: And then they got back to her and told her, "You're spot on with what you reported to us." (Laughter.)

COLLEEN O'BRIEN: That's awesome.

EDAENA SALINAS: And they were able to track the person that was doing these prank calls.

COLLEEN O'BRIEN: That is the coolest detective work ever. (Laughter.)

EDAENA SALINAS: Exactly. And thanks to that, she's doing even more research in this space now.

COLLEEN O'BRIEN: And how do you find people like this woman at Carnegie Mellon? How do you go about scouting the guests that you want to feature on the show?

EDAENA SALINAS: There are different ways of doing that. One of them is through research papers. Like if I'm reading a research paper, those are nice because they put the e-mails at the top. The other ways are through Twitter or if I read an interesting article about a piece of technology or a startup, I find their website and the contact form, people's personal websites. And, lastly, through networking events, so there are a lot of technical conferences or meet-ups. And if I'm interested in those topics or if I think the community can get some value out of it, I go to those events and ask for the contact information of the people that spoke or some of the attendees.

COLLEEN O'BRIEN: That's great. You know, Sonia and I often talk about the guests that we're featuring on this show as mentors who we'd like more people to hear from. So, it sounds like you're doing a lot of that same work -- figuring out who's inspiring, whether it's through the articles that you're reading or the people that you're meeting, and just providing them with a broader platform to spread that message.

SONIA DARA: So, really quickly, what are tips you would have for aspiring podcasters out there? Clearly, two and a half years, you've probably learned some awesome tips and tricks, anything that you can share with us and then maybe some other aspiring podcasters out there?

EDAENA SALINAS: For aspiring podcasters, I would say now it's easier than ever to have your own podcast, which is basically a radio show. There are a lot of tools out there that make these easier now. And I would also say if you decide to start a podcast, don't focus on how many people are listening to your show, just keep pushing high-quality content and be consistent and constant in terms of time. Just decide, "I'm going to do this once a month," and do it once a month. People like to know when your show would be available. So, if you publish one and then they don't hear from you for a while, you might lose those listeners.

And the other thing that I would recommend is pick an area that you're interested in and just start doing a show around it. It can be very specific or every general.

COLLEEN O'BRIEN: Yeah, as long as you have the interest or passion, it's easier to stick to that Cadence that you mentioned. It feels less like work if it's a conversation that you'd hope to be having anyway.

EDAENA SALINAS: Exactly. And there are different formats. For example, in both our shows, we invite other guests to come. A simpler format would be you can talk with a

friend and it's always you and your friend discussing topics, so that makes things even easier because you don't have to go about scheduling people and inviting people. So, that's another good way of getting started.

COLLEEN O'BRIEN: I know that listeners of our show are really going to enjoy the content that you're producing as well. So, where can our listeners find you?

EDAENA SALINAS: You can find all the information about the show on womenintechshow.com, so that's the main website. And it has links to iTunes and Spotify and social media channels. So, just go to thewomenintechshow.com.

COLLEEN O'BRIEN: Yeah. And, listeners, if you are hearing this right now, you're probably already in your preferred podcasting app. So, just hit that search button and look for *The Women in Tech Show*. Edaena, thank you so much for the work that you're doing and for being on our show today. It was really great. Yeah, thank you so much.

EDAENA SALINAS: Thank you, Colleen. Thank you, Sonia. (Music.)

COLLEEN O'BRIEN: And now, let's get on with the interview.

SONIA DARA: Listeners, we're very excited to welcome Ginger Chien to the studio. Ginger, thank you so much for joining us.

GINGER CHIEN: Thanks for having me.

SONIA DARA: So, Ginger, you were here on campus as a presenter at our Storytelling Summit. I really appreciate that your bio for that event describes you as a storyteller, rock musician, and cell phone engineer. As someone who falls into the norm of describing myself first by my job title, I definitely was pleasantly challenged to think about the other ways I might kick off my bio in the future.

Why is it important for you to represent these dynamics?

GINGER CHIEN: I have two reasons. One is very practical. It simply has to do with how I, from a personal branding perspective, make myself stand out, especially in this city. There are so many engineers and so many software people and so many project managers. When someone introduces themselves to me that way, I find it hard to really remember anything about them. And so I prefer to integrate bits and pieces of my life in a way that tries to make things more memorable for people. And if I talk about storytelling, if I talk about that I'm in an '80s rock band as a keyboard player and that I'm a cellphone engineer, I can generally catch the attention of just about anyone.

SONIA DARA: Yep! (Laughter.)

GINGER CHIEN: And especially that musical connection. Everyone gravitates to that and they think it's so cool that I play in a band, even though band musicians are a dime a dozen here in Seattle.

SONIA DARA: It's very cool. It's very cool. And, definitely, very memorable.

GINGER CHIEN: Yeah, but the other reason is that I was involved in some workshop exercises, and this is an exercise that I use with others when I'm giving a workshop, which was when I was asked over and over the question, "Who are you? Who are you? Who are you?" And then told that I was not allowed to talk about work, it becomes really painful after just a minute of answering that question. And that's when I decided, I needed to find a little bit more about what it is about me that I can actually talk about outside of work for more than a minute and actually feel really confident about its meaning to me.

SONIA DARA: So, Ginger, we first came to know you as a presenter on a local panel organized by Ladies Get Paid -- an organization working toward gender pay equity. And now, you made this time to come speak with us on our show. And our mission is to empower women in their careers. So, why do you prioritize opportunities like this to scale your experiences and mentor others?

GINGER CHIEN: There's a theme of advocacy that runs through pretty much everything that I do. And one of my goals is to do what I can to advance the workplace and equity for women. This is something that I came to learn because I'm transgender. And one of the things that happened to me when I transitioned is that I lost a lot of privilege. The world changed for me both in terms of how people treated me, and in how I saw myself.

When Ladies Get Paid invited me to go speak with them, my first reaction was: Why do you want me? Because I haven't experienced the disadvantages in the tech workplace. And the organizer said that she really wanted to hear different perspectives that men and women have of each other in the workplace from the viewpoint of a single person.

And so I could see the value in that. And when I spoke to people there, I had some stories to share about how deeply embedded the social messaging had been for me, even though I wasn't raised as a girl, I managed to absorb all of this messaging. And one of my favorite examples is in the Asian culture, when you're laughing, you often cover your mouth. And even though I was not raised to do that, when I transitioned, I found myself just automatically covering my mouth when I was speaking or when I was laughing.

And it dawned on me that if those messages had sunk in that deeply with me, even though I hadn't been raised as a girl, I can only imagine how deeply those messages must sink in both for men and women and the respective messages that they're getting and how those things play out in their respective worlds.

SONIA DARA: Your presentation at the Storytelling Summit is building on a great deal of speaking experience. You've given technical presentations on emerging wireless technologies at the AT&T Developer Summit, workshops on emotional intelligence at the Lesbians Who Tech summit, and lectures on signal processing as an electrical engineering instructor. I'm so impressed by the range of material that you can cover in all of your presentations.

What has motivated you to make speaking such a cornerstone of your work?

GINGER CHIEN: I think I stumbled into that in fourth or fifth grade.

SONIA DARA: Oh, wow.

GINGER CHIEN: I remember being one of the students who was eager and excited to run to the front of the class and volunteer to give oral book reports.

SONIA DARA: Oh, wow! (Laughter.)

GINGER CHIEN: So, it's not something that most kids do, but it was something that I really loved doing. I think it also goes hand in hand with the experience of growing up in the closet and growing up very sheltered and being steered in a life and a career path by traditional achievement-oriented Chinese parents, which I'm very grateful for all of the attention that they gave to my upbringing and all of the opportunities they gave me, but at the same time, there's a sense of not being seen when you're a little kid and struggling with your identity.

And so I fell into all of these different ways of communication, it was a way for me to stay connected with the world around me, and at the same time share things that I knew so I had a chance to share the technology, and in later years, I had a chance to share my understanding of how I just see the world and how I see people from my perspective in the workshops. I have to say, there's been no shortage of really wonderful connecting experiences when I've had the opportunities to speak to people this way.

SONIA DARA: In this show, we tend to focus on professional pursuits, but I really can't go on until we get to hear more about your rock band that you mentioned, which might be a professional pursuit, but I don't want to make any assumptions.

So, what do you play and how did you find your band?

GINGER CHIEN: Yeah. So, I play the keyboards in an '80s dance cover band.

SONIA DARA: Awesome.

GINGER CHIEN: I found the band early in my coming-out process. There was a conference for transgender people and there had been a talent show act that performed at the talent show.

And I knew thought this was something that I wanted to do. And I approached the other band members, and I said, "Is there any place you might have for me?" You know, the only thing I can play is classical violin. They thought about it and they said, "Well, sure, you know." A lot of '80s music just involves holding a note for much of the song and pounding on a tambourine, and they found a place for me. And in the years since, we've developed a great repertoire and it's so much fun to play in this band because we're a very different kind of band. It's not a bunch of guys who stand around in Dockers, we wear pretty outrageous outfits. And I think that change the space in which we play, the fact that we are there with the blessing of the venue, that we are there on stage, we own the space, and it's been so nice to see the people who choose to come to our shows.

We have young people. I remember a grandma in chunky white tennis shoes that was up in the mosh pit dancing with everybody else. There are people in wheelchairs and queer couples and straight couples. Everyone seems really comfortable when we play. And I think that's part of what it means to be out there and create space for people to join you in whatever their fullness is.

SONIA DARA: So, what's your favorite song to play?

GINGER CHIEN: My favorite song is a song by Peter Schilling, it's called *Major Tom*.

SONIA DARA: Love that song!

GINGER CHIEN: And at the end, there's an outro in which he sings over and over, "I'm going home." And I remember watching the crowd at the end of the song, because that ending becomes very choirlike in its power. And everybody has their heads tipped back, their arms are in the air, and they're all singing, "I'm coming home." And I'm thinking, "Yeah, this is the way it's supposed to look."

SONIA DARA: That's awesome. I love that song. Great choice. So, in addition to playing in the amazing rock band, your background is in electrical engineering. You have a bachelor's degree in electrical engineering from the University of Washington here in Seattle, and a master's in electrical engineering from Princeton University. With that foundation, you've had an incredibly successful career, most recently as a device architect at AT&T. What drew you to this field of electrical engineering? And did you always know that you wanted to become an engineer?

GINGER CHIEN: I can't say that I decided early to be an engineer, but what I did do was always ask questions about the things around me. I was taking things apart, I was trying to mix kitchen ingredients and chemicals together to see what would happen.

One of my first successes as a little kid was my older sister, she had received this free hot curler set from saving package labels or something. And it arrived and she was kind of disappointed because one of the curlers would not come off its metal rod. It was still jammed in the machine.

And so I took it apart, I got the curler off, I grabbed one of my dad's files, I changed the proportions of the heating rod and got the curler to fit.

SONIA DARA: Wow.

GINGER CHIEN: And it was such a joy to be able to manipulate a thing in a way that mattered for someone. And I think that's the philosophy I take to engineering as a whole. I've always thought of engineering as an art, a discipline that exists in service to people. If there weren't people to serve, there really wouldn't be any point in engineering. And so with that in mind, I love to create things, I love to see things matter. I was modifying my own toys as a little kid.

And in the Chinese culture, at least in my family, I had the opportunity to be a success in my parents' eyes if I could be a doctor, a lawyer, a concert musician, hence the violin, and it would have been okay to be an engineer because my dad was an engineer.

I eventually chose the route of engineering, although I could have very easily chosen to be an architect. That was something in the back of my mind, and I set that aside, partially because of what I believed of my parents' expectations, but I think I would have been very happy as an architect as well.

SONIA DARA: So, to date, you have 47 patents to your name for ideas such as facilitating local determination employing vehicle motion data to method and apparatus for managing auto correction in messaging. It's an awesome and incredible achievement, especially considering the stats from the Institute for Women's Policy Research, which demonstrate that more than 81 percent of patents include no women inventors. And that women aren't expected to reach parity in patenting until 2092. Is this an important statistic to address and focus on? And if so, how can we move the needle on that more quickly?

GINGER CHIEN: So, I want to make one quick correction. In the month or so since we first talked, it has now actually jumped up to 49 patents.

SONIA DARA: Oh, wow, okay. Casual, yeah.

GINGER CHIEN: Yeah, what I showed you were some of my favorites. And in the patent work that I do, a lot of the patents originate from the people that I hang out with in the context of other cultures and alternative lifestyles. There's a lot of inspiration that I get from people who have very different kinds of needs from the ones that I and my peers at work are familiar with.

But I want to get back to your question about the statistics. Those statistics, I think they're reflective of the bigger systemic issues. For women in the technology workplace, there's underrepresentation, first and foremost. The process for patenting is really arcane. It's a process that also involves well-entrenched individuals and organizations that have been in that business for quite a while. And so there's a need for social capital in order to break into that process, even within very supportive organizations.

SONIA DARA: Interesting.

GINGER CHIEN: I think one of the things that I like to remind people of is that you don't have to be a rocket scientist in order to patent. I think all you really need is an unusual perspective on what people need, what the world could benefit from, and to actually not try to solve the same problems that other people are trying to solve right now.

I like the share the story of Hedy Lamar. She was a movie bombshell just prior to World War Two. And when she saw the allies not being very successful with their torpedoes, she asked the question: Well, why don't we just control them with a radio signal? And everyone said, "Well, if you try to control them with a radio signal, the Germans will jam them." And she said, "Well, then you just use a different radio signal."

And that simple question was all that it took for her to pair up with a compose friend who knew how to synchronize player pianos and the two of them devised a scheme that is now today's frequency-hoping technology that's in Wi-Fi, it's in Bluetooth, it's in security military communications. It is in just about everything in our modern world. And, really, all that was needed was for a perspective that didn't come from the same people who were already trying to do that work.

You asked why the numbers are important. And I think there were a few key reasons why patents matter so much for people in the technology space. First and foremost, they are bellwethers of someone's technical prowess. There's no question that when you mention that you have a patent, everyone goes, "Ooh!"

SONIA DARA: Ooh! That's for sure.

GINGER CHIEN: But more than that, they confer professional value. They've become factors in promotions, they're factored into things like academic tenure decisions and

they are also, of course, the holders of the intellectual property that organizations find so value.

And given that there's so much importance captured in this thing called a patent, I think everyone needs representation in that particular institution. And the institution of patents is a very influential one.

Now, I mentioned earlier that the one thing you want to avoid is to get the same ideas from the same people solving the same problems. Now, you could just add different people. You could add women into the mix. But if you're just trying to continue to solve the same problems, then you haven't gained everything that you can. I think the real value comes from bringing in different ideas and trying to solve completely different problems that haven't been imagined before.

And that's why that general premise of the value of diversity, it's not achieved when you simply have people who look different, you also have to have the open space in which they can expand and be their whole selves, bring all of their ideas into that space.

I mean, when it comes down to being creative, ultimately, what being creative means is someone will notice that the thing you're doing or the thing you've created or the idea that you're espousing is different. It's different, it's novel, it's courageous. And that doesn't happen if you stay inside the box. And so my encouragement to organizations and people is to make the space welcoming for these different ideas, and then to have the people there that bring the fresh ideas.

Now, that statistic about the year 2092 being when women are estimated to reach patent parity with men, that is a really sobering number.

One of the scary things about the research there is that they were only looking at ten years of data, and the growth is painfully slow. And with ten years of data, they're still projecting almost a century out before the numbers catch up.

Now, that means it could take longer, but it also means with all of that potential error, it could mean that things could happen much more quickly, too. And there are a couple statistics that I want to cite. I'm familiar with the research that you mentioned, and that particular research looked at a lot of other factors. And I think one of the most encouraging statistics instruct hat when you look at the success rate of patents that women submit versus those that men submit, it's almost equal, about 70 percent end up being successful and end up being awarded patents.

So, the ideas, the quality of the ideas themselves are essentially equal. Now, one reason why women don't get as many patents is that women only submit one-third as many applications as men.

SONIA DARA: There it is.

GINGER CHIEN: And that reflects a lot of the other things that happen in the workplace, where women tend to apply for positions only when they feel like they satisfy more of the criteria than men who apply feel they satisfy. There are a whole bunch of social factors that I think we can correct in order to change these numbers.

I want to share another statistic, which is related to patent citations. And if you think about research papers, research papers cite each other all the time. And the number of citations that a paper has, whether it's a citation in the forward direction or in the backwards direction, the number of citations that research has is correlated with its value, its economic value. And what the research found is that when you look at teams that are all men who submit patents and teams that are all women and teams that are mixed, it turns out that the mixed teams end up having patents with more citations than those of all men or all women.

And what that means is for various mysterious and some well-known reasons, the diverse team ends you producing patents that have higher citation counts, which means it has higher fundamental economic value, it has higher benefit in terms of stimulating future research, and an easy way to get there, even without understanding all the dynamics underneath it all is just to make a point of having diverse teams.

SONIA DARA: So, Ginger, what do we do? How do we change this?

GINGER CHIEN: I have a lot of faith that this can be changed. And there are a few things that I think organizations and institutions have to do. The first one is improve the systems that support and mentor women in this process. I mentioned that it's a very arcane process and there's a lot of lawyers involved at some point. And this is not something that anyone can navigate on their own. And so organizations can make the process more accessible by improving the systems that support and mentor women in this process.

I think there's also another component that's important, which is the overall atmosphere as far as who is encouraged to patent needs to shift. And there are ways to do that without breaking any understandings of what it means to be fair and equitable, and one of the things that you can do is you can offer non-monetary awards. You can make it part of a manager's own evaluation process during their annual reviews that if they are involved in the creation of more diverse teams, then that can be a checkmark in their evaluation.

And it encourages them to take a second look and to try to craft these types of versus teams with intention, as opposed to letting things just happen of their own accord.

One of the other things that you can change would be the recognition program and the awards and incentives that go along with patents that are filed or patents that are awarded. You could, for example, subtly shift the incentives in a way that encourages the teams themselves to build in accordance with certain guidelines, to have more diverse membership, or to include more women or whatever the goal might be. It might be to include people from different organizations, not just the technical organization, because that, itself, would also bring different ideas into the mix.

And I want to add that as I was thinking about this recently, there was a little effort that I undertook myself, which was in my effort to develop this one particular patent idea, I needed people who had very unusual backgrounds -- backgrounds in alternative living arrangements, alternative and foreign cultures, in village life. And there's no center of expertise for this anywhere in a company.

And so I just put the call out there on one of our "inventioneering" internal websites. And I got a bunch of responses, which was really heartwarming. And I also made the point that I'm going to intentionally try to include people in this extended brainstorming exercise who have never been involved in patent before, or who are women. And I gave all of the reasons that we've been talking about today, that this is important not only to the individuals who deserve to share in the benefits of being in this institution of patents, but also that it benefits the company in the sense that here's an opportunity, an easy opportunity that we shouldn't overlook to create the mixed teams that just naturally create more ideas.

And so I'm very happy to say that right now, I've got a team of four. There are three women in the group. One of them has never been involved in any patenting activity in the past. And as a result, we're doing a lot of fun mentoring and we're also doing a lot of great brainstorming right now.

SONIA DARA: So, Ginger, you've leveraged your expertise in cell phone communications as a fellow at the LGBTQ Tech and Innovation Summit hosted by Lesbians Who Tech. There, you were working to incorporate text messaging into voice-based crisis hotlines. Can you share a bit more about how you got involved with the summit and the project that you were working on?

GINGER CHIEN: Yeah. I was invited with about 150 people at the invitation of Lesbians Who Tech in partnership with the White House Office of Technology and one of their LGBTQ outreach organizations to join a bunch of other technologists and hear about some of the problems that the administration was trying to solve a couple years ago.

One of the people who had an opportunity to meet with was DJ Patil, and at the time he was the chief data scientist for the United States. And in that role, he was seeing challenges of precision medicine, of inadequate sociological data, of very profound needs that were just completely under the radar.

In my research, I learned that transgender people are notoriously difficult to survey in the census, and there are no questions today, anyways, but even if there were questions, it is very difficult to get honest and accurate answers because there's still such a sense of fear in that community.

So, the researchers know that there are so many issues with gathering data. We decided to pursue a project which looked at the integration of text messaging and voice crisis lines in a slightly different way. Now, those solutions already exist, a company will advertise their number and people will sometimes try to call, sometimes they'll text, and either way, they'll get through. So, that alone was not new. But what we wanted to do was in the short space of a couple months and a purely volunteer project, what we wanted to do was given some context, some substance and some narrative and some humanity to a lot of the really sad statistics that surround the risks and the struggles that LGBTQ Americans face.

So, we did what amounted to a listening campaign, where we published a number. We had just the right people on our team. We had people who were in LGBTQ journalism, and so they got in touch with their celebrity friends. We had people who were skilled in marketing, who were skilled in the execution of campaigns on Twitter. And we had a number of technologists.

And we ended up putting together a system in which people could tweet their narratives to us and tell us their stories. Or, if that didn't feel safe enough, they could text their stories to us and have some trust in the legal requirement that we scrub their identity before doing anything with their stories. And we were able to line up stories with various statistics that are known to the research community in terms of extremely high education that transgender people have or LGBTQ people have in general, and at the same time, the very elevated unemployment rate, which doesn't seem to go hand in hand with very high education.

The goal of this was to bring personal stories into the rather dry statistics and to put a face on the statistics and to use what was available at the time in terms of sentiment analysis and AI to try to analyze the messages and try to tease out themes and suggest a way that researchers might be able to pursue something like this in the future.

SONIA DARA: So, Ginger, that's not even the full extent of your work with Lesbians who Tech. You're also a board member for the Seattle chapter, and an advisory board member from the broader organization. The goal of that organization is to advance diversity representation in technology. Furthermore, you are a board member of PFLAG's Bellevue East Side chapter. PFLAG is, of course, the United States' first and largest organization uniting families and allies with LGBTQ-identified people.

We talk a lot on this show about the importance of community to support and fuel the individual. What has finding these communities meant for you?

GINGER CHIEN: It's been really important for me to find both affinity groups and mainstream groups. As someone who's Asian, as someone who's LGBTQ, someone who's transgender, I find I have to straddle both those worlds. It's important for me to find safety and like-minded opportunities to speak with my peers in an affinity group, and at the same time I also want to find a place within the community at large. And so I have to do both.

These groups were very instrumental in giving me the kind of support that I needed and in giving me a sense of purpose. It was pretty recently that I was able to take a motto of mine and actually relate it to my work with these organizations and with technology. And the idea that's been with me for a long time is that technology and society are now inseparable. Technology, if you go back a century or two, technology was almost a novelty, it was almost a toy. You might have steam-powered animals or automatons that looked like dolls who could write a poem, but it really had no impact on anyone's life. And these days, in the matter of months, something can be created that completely changes the lives of people, sometimes for better or sometimes for worse. And with technology being so deeply ingrained in all of our cultural institutions, whether it's the press, education, government, business -- technology is so deeply ingrained.

And so I find it really important to bring whatever technology perspectives I have to the communities of families in the case of PFLAG and to perhaps be a role model and give parents a sense of hope thought the future for their kids can be really bright.

And at the same time, bring my skills to, say, Lesbians Who Tech. And whether it's technology or whether it's just helping to run a meet-up or help steer the decisions of the board, I think there's a lot that anyone can contribute. And the more bits of our background that we can pull together, I think that's the best way to do it because technology and society are all blended together now, too.

SONIA DARA: Ginger, can you share any parting advice for our listeners who are in pursuit of their personal community?

GINGER CHIEN: I think the most important thing to do is not believe that you know where you have to look. And, instead, just start looking. You only know what you know, and if you haven't found your community yet, it's probably not in the things that you've already seen. And like I said before, this is your opportunity to go to the places that you might not be comfortable and explore groups, explore people, explore religions, explore communities and in that process, you will find things that perhaps awaken new sense of purpose that you didn't even know you had before.

SONIA DARA: So, Ginger, where can our listeners find you on the Internet?

GINGER CHIEN: People can find me at my Twitter handle, @SpacePupster, and you can find my band at TheNastyHabits.com.

SONIA DARA: Awesome. Thank you so much.

GINGER CHIEN: Thank you. (Music.)

VOICEOVER: Cutting Edge, our take on stories in the business and technology world.

COLLEEN O'BRIEN: In this Cutting Edge segment, we're going to discuss an article by Cara Buckley that was published on December 11th in the *New York Times* titled *Movies Starring Women Earn More Than Male-Led Films, Study Finds*.

SONIA DARA: Ah! That's amazing. The article cites findings from the Creative Artists Agency and shift7, which demonstrate that the top movies from 2014 to 2017 starring women earned more than male-led films, whether they were made for less than $10 million or for more than $100 million or more.

COLLEEN O'BRIEN: The article mentions *Trolls*, *Teenage Mutant Ninja Turtles*, *Moana*, *Inside Out*, and *Wonder Woman* among the titles that had women in leading roles. The study also demonstrated that films that passed the Bechdel test, which measures whether two female characters have a conversation about something other than a man, outperformed those that failed the Bechdel test.

SONIA DARA: That's amazing. All right, let's just take a minute to celebrate because, let's be real, this podcast would definitely past that test.

COLLEEN O'BRIEN: And you know how much I love passing tests! (Laughter.)

SONIA DARA: Absolutely. So, Buckley points out that despite these results, quote, "Casting women in leading roles is still more the exception than the rule in Hollywood." Women accounted for about a quarter of sole protagonists in the top films of 2017, and they played roughly a third of major characters according to research from San Diego State University.

COLLEEN O'BRIEN: Creative Artists Agency, one of the organizations behind the headline research, released another report back in 2017 indicating that movies with multiethnic casts performed better on opening weekends than those with more homogeneous casts.

SONIA DARA: I love this quote in the article from Christy Haubegger, a Creative Artists Agency agent, who was part of the research team, "A lot of times in our business, there is a lot of bias disguising itself as knowledge."

COLLEEN O'BRIEN: Whether the industry will respond to these statistics is still unclear, but there is money to be made and customers to entertain with media that is more representative. If you're interested in hearing more about entertainment industry stats, be sure to check out my conversation with Annenberg Inclusion Initiative Director Dr. Stacy Smith in episode 33.

SONIA DARA: To read this article in full, do a quick Internet search for Cara Buckley, *New York Times*, and click on her December 11, 2018 article. (Music.)

COLLEEN O'BRIEN: Well, listeners, thanks for kicking off the new year with us. We're going to let you get back to your resolution planning, but before we do, I just want to extend some thanks to Edaena Salinas for joining us and telling us more about *The Women in Tech Show*. It's a great podcast, and I highly encourage all of you to give it a listen.

SONIA DARA: And a thank you to Ginger Chien for joining us in the studio and for offering such incredible insights. The Seattle community is very lucky to have you on their speaker circuit.

COLLEEN O'BRIEN: Please remember to rate, review, and share our show on Apple Podcasts, or wherever fine podcasts can be found.

SONIA DARA: If you have any questions or feedback, you can e-mail us at wibt@microsoft.com or tweet us @MicrosoftWomen.

COLLEEN O'BRIEN: Your mission for this episode, if you choose to accept it, is to watch Melinda Epler's TED Talk, *Three Ways to be a Better Ally in the Workplace*. You can find the 10-minute recording at TED.com. According to Epler, "There's no magic wand for correcting diversity and inclusion. Change happens one person at a time, one act at a time, one word at a time." Check it out and maybe even share it with your colleagues. Kick off your 2019 with a strong commitment to allyship.

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