



## **Empowering Change: Women and Girls in STEM Podcast Transcript**

### **Episode 6: Rewriting the Script: Women's Role in STEM Media**

In this episode, we dive deep into the crucial conversation about women's role in STEM media. Join us as we examine the existing narratives, the challenges, and the exciting opportunities for women to reshape the way STEM is portrayed in the media. Our guest, Madeline Di Nonno, President & CEO at Geena Davis Institute on Gender in Media and the Executive Producer of Mission Unstoppable, brings her wealth of experience and insights into the discussion. Listen in to hear as we explore how equitable representation can inspire change, foster innovation, and empower future generations of women in STEM.

Host: Nancy Scales-Coddington, NGCP Director of Strategic Partnerships

Guest: Madeline Di Nonno, President & CEO at Geena Davis Institute on Gender in Media

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Madeline Di Nonno 0:03

Media and entertainment truly influences our social and cultural behaviors and beliefs. It can be very aspirational

Nancy Scales-Coddington 0:18

Welcome to Empowering Change: Women and Girls in STEM Podcast Series hosted by the National Girls Collaborative Project. I'm your host Nancy Scales Coddington, Director of Strategic Partnerships at NGCP. In this episode, we will discuss women's role in STEM media. We explore how equitable representation can inspire, change, foster innovation, and empower future generations of women in STEM. Our guest is Madeline Di Nonno, President and CEO at the Geena Davis Institute on Gender in Media, and the executive producer of Mission Unstoppable among many other notable talents. Welcome, Madeline.

Madeline Di Nonno 0:57

Thank you, Nancy, I'm delighted to be here with you.

Nancy Scales-Coddington 1:00

Can you share a little bit about your background? And how did you first get into media and producing?

Madeline Di Nonno 1:07

Well, actually, I've been in entertainment and media, most of my life actually starting as a teenager because of internships that I had at ABC. And that really inspired me to pursue a career in entertainment, I would started pretty young for me. And then I was able to continue that drumbeat throughout my college years. And then my first job out of college was actually working at ABC TV in New York. And that's how the whole thing got started for me.

Nancy Scales-Coddington 1:42

Was there anybody along that path that helped inspire you to continue going in that direction?

Madeline Di Nonno 1:48

I was in an executive, groupie. So some people like to follow celebrities or sports figures. I like to track executives, and particularly female executives. So I was always looking at female executives, and how they were navigating their careers in the workforce. And there were many, many people, you know, who inspired me, and who I looked at how they their management style, and took little parts and pieces from different people to come and inform. How did I want to navigate in the business world?

Nancy Scales-Coddington 2:28

Well, it seems like that's worked out as a really well strategy.

Madeline Di Nonno 2:32

I've been very, very lucky.

Nancy Scales-Coddington 2:34

Madeline, can you talk about the Geena Davis Institute, on Gender in Media? Why did Geena feel that this was important to establish? And you know, what does the institute do?

Madeline Di Nonno 2:45

Well, if you think about it from a high level, media, and entertainment truly influences our social, and cultural behaviors and beliefs. It also can be a window into the world of work and careers. It can be very aspirational. And so Gina had experienced great success as an artist, and also through some of her very iconic roles, which some of your listeners may be familiar with, whether it was being the first female president on TV and Commander in Chief, through her role as one of the best baseball players in a league of their own. And, of course, Thelma and Louise, our favorite female buddy Road Show Movie. And so she had a heightened sense of the impact of her character on the real world and on women and girls. And she brought that heightened awareness with her when she became a mom. And like any mom, she was watching content with her daughter at the time, who was a toddler, and it immediately struck her that there was a gap in terms of female fictional characters, their presence and their authenticity. And what she realized is that not only were there so far fumo characters, the female characters that were there or sidelined, they were objectified. They didn't have any sense of agency. And she thought, in the 21st century, how is this possible that we're not showing girls taking up half the space? And that's how the whole thing got started by her curiosity, and her passion in asking questions, and asking questions of her friends asking questions of people in the industry and saying to them, did you notice this that there's so few female characters in this show or this movie and no one really noticed and 20 years ago, if you would have asked someone, you know what their definition of say diversity was, gender was not on the agenda. And that's really what Geena pioneered through a research driven approach. And that's what has led to all of the research and then particularly, are passionate interest on looking at how female characters are portrayed in STEM.

Nancy Scales-Coddington 5:25

So what is the research telling us on women's roles in entertainment and media?

Madeline Di Nonno 5:31

Well, broadly, we have been successful in measuring the percentage of female lead characters in the highest rated Nielsen television programming for families, and the largest grossing box office films out of the US. And this is going back few years ago to 2019 and 2020, where we're able to achieve gender parity for the first time in history. And then most recently, last year, with our recent state of the industry, looking at gender, and race, ethnicity, LGBTQIA, disability body type age, we were able to see that female characters, even with the pandemic, which is greatly disrupted, all of our programming, we were still at about 49% for female lead characters, and, and so we've been able to hit that. But when you look at the intersection of gender, race, ethnicity, and gender, and age and disability, those numbers are fairly glacial, and have not moved, move much. So there's still a lot of work to be done and on the stem of it. And the first time we did our STEM study, many years ago, it was a 15 to one ratio of male characters to female characters. And most of the female characters that were depicted with a stem job, they were all in life sciences and doctors. But when it came to mathematics and engineering, computer science, those were like, such such low percentages, it was hard to even measure it.

Nancy Scales-Coddington 7:18

Those are some staggering numbers 15 to one!

Madeline Di Nonno 7:21

Indeed and we've seen a shift somewhat, and we're really excited, and so grateful to Lydia Hill Philanthropies who has been funding our stem and media study, and we're very excited that we will have a new study that will be coming out later on this year, probably fourth quarter. And we're hoping to see that the numbers, you know, the numbers have moved.

Nancy Scales-Coddington 7:49

When you were talking about impact earlier, this does have such big impact. We do something similar in STEM outreach where you ask students to draw what a scientist looks like, right? And so students who've had someone be a role model in their life, they will tend to draw that person. Others will draw that typical male character, he's holding a flask, it's usually a male is in a white lab coat. And it is very much that is what people think of when they hear the word stem.

Madeline Di Nonno 8:19

Absolutely. It's funny because we have an educational program called Guess Who and it was produced by five different universities in the United States, and our partner was PBS. And we had the student filmmakers gather up children, six to nine. And one of the first episodes was called the mathematician and the baker. And they asked the children, you know, what is the baker look like? And then they asked the children, what is the mathematician look like? And exactly to your point, all the mathematicians were in a lab coat, they were male, they had, you know, glasses. And ultimately, when we revealed that the mathematician and the Baker was one person, it was a woman who owns a wonderful restaurant in Boston. They were blown away because she actually studied mathematics at Harvard. But then she applied it to her baking, a very successful baking shop. And these kids were just their jaws dropped, they could not believe they just couldn't believe that a female could have been a mathematician at the same time.

Nancy Scales-Coddington 9:34

What a great example of breaking those gender stereotypes and having such a great example of that.

Madeline Di Nonno 9:41

Absolutely. Absolutely.

Nancy Scales-Coddington 9:45

So you've been at the forefront of showcasing women in STEM through media as the executive producer of mission unstoppable, which is a STEM TV show hosted by Miranda Cosgrove and it highlights women in STEM careers. Can you talk a little bit about the show and your role as the executive producer?

Madeline Di Nonno 10:04

Absolutely. Well, we were invited to participate by Lyda Hill Philanthropies as executive producers. And we're just so excited. And actually, we're going into our fifth season. But just across the past few seasons that we've had, we've reached over 3 billion people through CBS because the show is on CBS on Saturday mornings, and on social platforms. And what's amazing is, we've heard from so many young women across the country, how deeply it's inspired them to either pursue STEM studies or careers. And we're just really so proud of the result. And the show essentially showcases all types of female STEM professionals in a really fun, age appropriate way. It shows girl some really cool fun things that can be done. And it's really educational and very, very entertaining. And so, and the thing is, like, for example, girls may not realize that a designer who loves fashion uses her scientific background to develop sustainable fabrics, or a ballerina physicists using robotics to meld science with dance. So a lot of that is not your would, we'd say, usual suspects or that stereotype as we've been referring to the lab coat, you know, with the glasses in the dark, you know, alone. So it's really been, you know, very, very inspiring. And in fact, a few years ago, there was research conducted on behalf of the show. And after watching Mission Unstoppable, we found that there was a 16% increase in STEM courses in high school and university, a 17% interest in STEM among girls, and a 20% lift in perceptions of STEM careers being actually creative and appealing. And so it has had quite a great impact in kind of shifting the narrative around how young girls think about how they could see themselves in STEM related careers.

Nancy Scales-Coddington 12:19

So you already gave some examples of this, but why is showcasing women in STEM so important?

Madeline Di Nonno 12:25

It is so important because the future, you know, of our jobs, and being able to solve, most of the problems that we're dealing with is really going to be driven, you know, by by STEM. And it's really important that our children overall and particularly our girls can look at, you know, STEM and STEM is rooted in almost everything that we do. So it's really important that we can attract, educate and engage girls to pursue STEM careers, and also education.

Nancy Scales-Coddington 13:01

How does the media influence the way that we see women in STEM? And what can we do to ensure a more inclusive and empowering portrayal?

Madeline Di Nonno 13:10

Well, I'll give you an example. We have the absolute privilege of conducting a study on behalf of 20th century. And it was with regard to the X Files. And the primary question was for those viewers who are familiar with the X Files show, is did the character of Scully which was played by the amazing Gillian Anderson improve women's perceptions of STEM fields and inspire them to go into a stem profession. And just to give you some background, The X Files was a hit science fiction drama that aired on Fox from 1993 to 2002. And then it came back and went off the air again in 2013. And so what we found is of the few 1000 women that we interviewed nearly two thirds 63% of the women who are familiar with Dana Scully said she increased their belief in the importance of STEM. And also among the women who were familiar with her character have said it inspired them to pursue a career in STEM, and that's why they're working in STEM today. So there is that causation, which can be difficult when you talk about media effects, and what we see and our behaviors, but it absolutely shows the power of media to inspire.

Nancy Scales-Coddington 14:37

Yeah, it definitely does. I mean, you really dove into how media can play a role in breaking down those STEM stereotypes and biases that often hinder women's participation in STEM.

Madeline Di Nonno 14:49

Absolutely. And that's why you know, we have been pursuing this type of analysis and also why it's so important to have a show like me Mission Unstoppable.

Nancy Scales-Coddington 15:01

Can you talk a little bit about the other work that you do at the Geena Davis Institute?

Madeline Di Nonno 15:07

Absolutely. So one of the things I had mentioned is that we look at who is showing up, how are they showing up? And we look at the intersection of gender, race, ethnicity, LGBTQIA, disability, age, 50, plus and body type. And so we apply those six dimensions to all of our research, and we look at certain verticals. And then we look at certain topics. So for example, historically, every year, we measure the film and television industry, we've held off on film because of the pandemic. But we do have a state of the industry report that comes out every year. And then we'll also look at certain topics. So over the past few years, we've looked at women in leadership, we have looked at careers, we have looked at caregiving, we have also looked at toxic masculinity and the verticals that we operate in our global advertising, global film, Global TV. And most recently, we just started looking at inclusion in video gaming.

Nancy Scales-Coddington 16:18

So you've done extensive research on families, and what they are consuming. Is that part of an educational base or is that just like overall media?

Madeline Di Nonno 16:27

Oh, no. So we we look at popular content. So when our TV study looks at two things, what are kids and families watching? And then we've looked at what is the programs that are specifically targeted and being made for children. And we've looked at, you know, both both of those things, just to see if, with newer programming, are we seeing, you know, more diversity, equity inclusion than just what kids happen to be watching because, for example, a family may be sitting down to watch a show together, like a Grey's Anatomy, a primetime show, which isn't really being targeted towards children, but the kids are watching with their families. And that's what happens to be on the TV, you know, at that time. So we wanted to segment that, and a lot of the programming that is made for young children, you know, is animation. And what was very interesting is when we looked at popular programming for kids, two to 11, we found that among lead characters, 49% were women, which was an increase from 2019. But it was still below pre pandemic, where we saw it was a 52% of the leads were female. And when we looked at other and broke down animation, say versus live action, what we found is when there were animated human characters, we approach gender parity with slightly more male characters than female. So it was about 51% versus 49%. But what we found in terms of animated non human character, say, such as a talking animal, it was much more likely to be male. So it was 68% Compared to 32%. So animated characters were also less likely to be non binary than live action characters. And we also found that when it came to people of color, we found that black representation was much better among live action characters than animated characters. So, you know, it makes you think twice about why is that, you know, why is there a great intent and an impact when it's kind of a human like character, but if it's not when, it's a talking animal, the default is kind of male. So that's, it's intriguing and begs more questions. But that's what we found from our most recent TV study.

Nancy Scales-Coddington 19:04

That is really fascinating, especially between the animation and the real life characters.

Madeline Di Nonno 19:09

Mm hmm.

Nancy Scales-Coddington 19:11

Have you seen an increase in STEM produced shows over the last 15 years?

Madeline Di Nonno 19:19

That's something I'll be able to answer for you in fourth quarter, because we looked at characters that are female that are in shows, they may not be a STEM show, but for example, when you look at most of the episodic crime shows, a lot of those have an opportunity for scientists, you look at some of the more I'd say fantasy shows, there's opportunities. You look at a franchise a global franchise like Star Trek, they've had female characters from the very beginning from the 60s forward, that have a lot of different, you know, roles, whether they're pilot or Lieutenant so they're a kind of a hybrid. But I'll have more of an answer for you on that come fourth quarter.

Nancy Scales-Coddington 20:05

I'll be looking forward to when that comes out. Can you provide an example where media played a pivotal role in challenging stereotypes related to women in STEM?

Madeline Di Nonno 20:15

I really think when you look at the character of Gillian Anderson, that character really challenged stereotypes. And I think what we found out is from the women that we surveyed, is that they liked that she didn't have to be saved. She was logical in how she approached solving her characters. She was very independent, and she wasn't reliant on the male characters to be successful. And those were some of the things that came across about why she was so she was so iconic.

Nancy Scales-Coddington 20:53

Well, it's clear that your work is definitely making a significant impact. In terms of creating more opportunities for women in STEM media, what strategies or initiatives have you observed, that are particularly effective?

Madeline Di Nonno 21:07

What we have seen leading content partners, and studios all have very robust writers, programs, producers, programs, directors, programs, where people have the opportunity to not only be mentored, but actually placed within the framework of their projects, and have also gone on to have very successful careers. You know, there's also a program at Disney called Launchpad, where the content, the shorts that they create, then wind up being aired, you know, on Disney plus, so each one, NBC Universal, Sony, they all have these programs that really create a pathway for many of these filmmakers. And then self serving Lee, Geena leads a film festival called the Bentonville Film Festival, which is supported by Walmart and Coca Cola. And, you know, we celebrate, women in diversity. Many of our female directors have gone on to be able to produce, you know, their second and third movies. So those are the things is just allowing people to get to the table, show their expertise, their artistry, and then helping them find a way in to the industry.



Nancy Scales-Coddington 22:23

These stories truly showcase the transformative potential of media. What advice would you give to aspiring filmmakers, journalists and media professionals who want to contribute to more inclusive representation of women in STEM through their work?

Madeline Di Nonno 22:38

It comes down to what is the story that you're trying to tell? And how do you make sure that there are an abundance of different types of people, whether it's a person with disabilities, and we have to think about it intersectionally because you could be a female character, you could be a person with a disability, you could be a person of color, you could be part of the LGBTQIA community, all in one person. It doesn't have to be separated. So there's a lot of opportunity to show really unique, you know, story. So I think it's what's in the composition of your story. And then who are you inviting to the party to help you as a producer as a cinematographer. And there's abundance of all types of people who are willing to do both in front of on camera and behind the scenes.

Nancy Scales-Coddington 23:30

Madeline, where can we find out more information about the Geena Davis Institute and Mission Unstoppable?

Madeline Di Nonno 23:36

Well for us, you can follow us on social media at Geena Davis. org. You can also go to our website, which is seejane.org. And Mission Unstoppable you can currently watch the shows on CBS on Saturday mornings.

Thank you Madeline Di Nonno, President and CEO at Geena Davis Institute on Gender in Media for sharing your invaluable insights and example it has been a privilege speaking with you.

The privilege has been mine to speak with you Nancy, thank you so much. Thanks to everybody who's listening.

Nancy Scales-Coddington 24:14

We hope this episode has inspired you to continue championing women in STEM through media. We invite you our listeners to take action and be advocates for change. If you enjoyed this podcast consider supporting this work. The link is in the show notes. share this episode with your peers, colleagues and friends to raise awareness about the issues discussed. Let's work together to create a supportive and inclusive environment for women in STEM, ensuring that

they have the mentorship resources, and encouragement they need to excel and make significant contributions to the field. Join the discussion on rewriting the script women's role in STEM media. We want to hear from you. You can find us on Twitter, Facebook, LinkedIn and Instagram at NGC project and on YouTube at National Girls Collaborative, you can find NGCP's podcast, Empowering Change: Women and Girls in STEM wherever you listen to your favorite podcasts. Together, we can reshape the narrative support effective strategies for taking action and showcase the hope for a more equitable future for women and girls in STEM. Thank you for joining us.

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