

Bold(h)er

Inspired to Invent

Note to reader: The text below is a translation of a verbal transcript from a podcast. The translation was executed in a way to reflect as accurately as possible the speech of the speakers.

Lianna Genovese:

Its all about persevering and getting through all the difficult times and focusing on your passion and what you want to accomplish at the end of the day. And just keep getting back up and surround yourself with people who can lift you up. And you'll just make anything happen.

((Music))

Lisa Bragg:

When Lianna Genovese looks up from her desk that's the message she sees. It's on a poster for the movie series Rocky. The first Rocky movie was about a small-time boxer who keeps getting knocked down. Until he finally goes the distance.

As an inventor, founder and CEO, Lianna is committed to going the distance for accessibility.

((Music))

Lisa Bragg:

Welcome to Bold(h)er, stories of and for women who stand out brought to you by BMO for Women. I'm Lisa Bragg.

So Lianna, you're in your final stretch of university, and you're also the founder and CEO of a company that's gaining international attention. Tell us about your company.

Lianna Genovese:

So ImaginAble Solutions is an assistive technology company that improves the quality of life for people living with disabilities, and our lead product is called Guided Hands. It's an assistive device that enables anyone experiencing limited hand mobility to write, paint, draw, as well as use touchscreen devices. So, we help people living with cerebral palsy, ALS, Huntington's disease, arthritis, and even people recovering from spinal cord injuries and strokes among others.

Lisa Bragg:

You were inspired to make your device during a school project, tell us about that.

Lianna Genovese:

We were introduced to a woman named Elissa, and she lives with cerebral palsy. She did a presentation in front of our class on things that she could do, things that she couldn't do, and she mentioned that she was a talented painter, but then, as her condition progressed, she wasn't even able to hold onto a paintbrush. So she experiences uncontrollable curling of her fingers, and it's commonly known as spasticity in the hand. And I wanted to create her something to enhance her life. So, I pinpointed her love for painting, and I wanted to give her that back.

So, the first prototype of Guided Hands was made out of pipe cleaner, straws, and a sponge. And I had Elissa involved through the entire design process. She tried out many other crazy iterations that we created. One was a ball of yarn as a handpiece. The wrist rest was a paint roller. Just crazy things. She never made fun of them. She always encouraged us, which was wonderful. And by the end, we had a prototype that allowed her to paint again, which was truly amazing.

And then we ended up submitting that prototype into the innovative design for accessibility student competition. We thought nothing of it. We already had the prototype, the pictures and the videos, so we submitted. And it was amazing to hear that we actually came first place in Canada for it. And quite frankly, that prototype broke the day of our presentation. It was real rough as any prototype is. And winning that competition really inspired me to keep on going. So unfortunately, the two others that created Guided Hands with me and who initially were doing the school project with me, they didn't want to continue, but I wanted to. So, I kept going.

That was also one of the risks that I took where I was doing this by myself. I didn't have a team to support me on this journey, but I was really passionate about the project. I wanted to see how many other Elyssas I could help. So I redesigned it, manufactured, and created Guided Hands. And I ended up... I was just curious. I wanted to see how many other people I could help. Could I help others with Huntington's disease? Could I help someone with arthritis? I was just curious, who else Guided Hands could help.

So, I made a list of every single nursing home, retirement home, hospital clinic, rehab center. At the time, I didn't own a car. So I bused across Hamilton with Guided Hands in a garbage bag since that was the only wrapping I could find. But regardless, I did the grand reveal of taking off the garbage bag and I introduced Guided Hands to over 150 patients and health professionals in one summer. And seeing the happiness and creativity as people wrote, colored, painted, played games on an iPad, it was so rewarding for me and just inspired me to keep going.

And the reason why I started my company was because of a little girl named Bella at McMaster Children's Hospital. I introduced Bella to Guided Hands. And of course, since she was a little girl, I brought a whole bunch of painting supplies with me. And as soon as she began painting, the widest smile spread across her face. She turned to her mom and said, "Mom, I want one." And then the mom turned to me and asked, "How much is it?" And at that point, the thought of selling this device had never crossed my mind. This was just a passion project of mine that I just really wanted to see through. But in that moment, I knew that I found my passion and that this was exactly what I wanted to do. So, a week later, I incorporated ImaginAble Solutions and I've been transforming my passion into a profession ever since.

Lisa Bragg:

Does Bella have one yet?

Lianna Genovese:

Yes. Bella does have one. She was one of the... We actually sold to her doctor, and then we sold to her as well. So, she was one of the early adopters of Guided Hands, which was wonderful.

((Music))

Lisa Bragg:

So, it's actually in the hands, you're getting feedback. What does that look like and feel like for you?

Lianna Genovese:

Yeah. So just to say that Guided Hands is being used outside of Canada and now internationally is absolutely incredible. I would have never have thought that it would have happened. We're getting more interest from the UK and other countries, and it's overwhelming, but it's quite amazing to see that someone wants something that I built with my own two hands, which is very rewarding coming from an engineering perspective. And again, just to hear the stories of these individuals, their background, unfortunately, the medical condition that they have, what their passions are. It's really great to see what aspect Guided Hands can play into their lives.

Lisa Bragg:

What do you hear back from the feedback from the patients or the patient's families?

Lianna Genovese:

So, the best feedback is from parents of children. And I had one mother say to me, "Before, we had no pictures on our fridge, and now we have pictures on our fridge from our little girl." And I think Guided Hands can help her little girl in enabling her to show her own creativity and her independence. But it also helps with family dynamic, and for a mother to receive maybe a hand-drawn, scribbled birthday card or a Mother's Day card. Whereas sometimes that's something that maybe a parent would take for granted that their child's able to hold onto a marker. And now with Guided Hands, a child's able to do that. So, it's really wonderful to see sometimes the drastic difference that Guided Hands can serve in someone's life.

Lisa Bragg:

That's a beautiful story to know that you're making that difference. How has it changed you and your family?

Lianna Genovese:

I think for me, it's definitely made me more compassionate with people that I meet, and it gives me more inspiration as well. Every single customer or every single family that I meet with, it just inspires me to move forward, especially during any challenges or barriers that I experience as a solo female founder, as a woman in engineering, it just helps me get through all of that, just to see the smiles at the end of the day and the amazing words that people say to us. And as a family, my parents, they raised me to be that compassionate person. And they're just super proud of me that I'm able to do this, and of course, use my engineering background for good, which is really wonderful.

Lisa Bragg:

Did you think that you were going to go into designing human-centered devices when you started engineering?

Lianna Genovese:

Part of me always knew that I wanted to help people, and through engineering, I saw that I could use my skills in engineering to create something to help someone's life. But would I have seen it like this where I'm commercializing a product and directly working with patients and selling a product to healthcare facilities across North America? No, I absolutely did not see that coming. I thought I would just be kind of like the engineer in the background, who does the modeling on the computer, who does the sketching, and then hand it off to someone, and then they bring it to the world. But to be

able to bring my own invention to the world and talk about it on my own behalf is really amazing. So to do that today is just fantastic.

Lisa Bragg:

Do you get a lot of looks when you say, "I invented this"? Do you get that? Most people think an inventor is somebody who's 65-years-old and tinkering in their lab or tinkering somewhere else. Do you get double takes when they find out that you're 22? Is that right?

Lianna Genovese:

Yeah. Yeah. So I'm 22, and I invented Guided Hands when I was about 19. That's also when I started my company, ImaginAble Solutions. And yeah, I think people were surprised that I was able to do this at such a young age. And of course, sometimes there's a little bit of stigma around women in engineering. So, it was really amazing to show people that I was able to do this. And I'm able to not only invent the device, but commercialize it, relate to patients, and really understand their needs, and be able to see the whole way through. And I think as a woman, for me, I think my best personal traits is compassion and being able to sit beside a patient and really relate to them, have a really heart to heart conversation and understand who they are, because then I can take that to my engineering desk and be able to unravel everything and create something that can really speak to who they are.

Whereas I think maybe some people, if they don't have the opportunity to sit beside a patient and be compassionate, sometimes some of those aspects in design are lost. So, I feel like that's probably one of my best qualities in terms of bringing my passion and compassion into the engineering world. Whereas sometimes engineering is really seen as not cold, but it's just seen as physics and numbers, and it's not really about that compassion and that heart. So, it's really great that I can bring my own personal traits into that.

Lisa Bragg:

We do see it as very much head centric, and I think the world is moving to much more head, heart, and gut.

Lianna Genovese:

Absolutely. There has been many times where I have made decisions based on my heart and based on my gut. Sometimes not so much the head. I feel like I leave that up to more of the number crunching and all of that. But even to start my company, I didn't have any business background. I was an engineering student, and my heart and gut said, Lianna, you have to start this company to help these people. And if I went with my brain, Lianna, has no business background, therefore, Lianna should not be running a company. So it was really a risk to start my company just out of pure passion, but it worked out, so.

Lisa Bragg:

It's definitely working out because you're getting international acclaim with ImaginAble, and especially with Guided Hands. You've won several awards, and have to put a plug in because you won the BMO for Women sustainability grant, and you also won the James Dyson grant. What does winning those kind of grants mean for your business?

Lianna Genovese:

Yeah. So, with the BMO grant, it's just amazing, because it was focused on showcasing women and celebrating women, which I think is absolutely incredible. I think women are so powerful and have such heart and drive, and to recognize the efforts that we're making is so amazing. And it's great to

see other women who have won this grant and to see their companies and their journey. And I'm only 22, so I'm learning from them. So it's really amazing to see such inspirational people in my life. And with the James Dyson award, I came first place in Canada for that award. And then I ended up going to the international stages where I placed top 20 in the world. And that was amazing that Guided Hands brought me there. And it was truly amazing that this all started from a school project, an engineering project. And I really just wanted to see it through in the benefit of helping people. And just to get recognition on the engineering design of it and recognition from other engineering students is so inspiring as well.

Lisa Bragg:

Have you run into any barriers or anyone suggesting that you should sell the company because they could take it further, farther, faster? Have you had that yet?

Lianna Genovese:

No, not specifically that situation, but I've had people say to me, "You got to work fast, because someone in a different country might be working faster than you." So that kind of creates a sense of urgency of, I need to get this product off the ground as soon as possible. For instance, I was not supposed to release the product for pre-order until after graduating, but just there's been so many people while testing, saying, "We need this device. When can we order this?" So, we actually released the product for pre-order this past September in 2021. And since then, again, we've had pre-orders across Canada, US, in Singapore, in the UK now. And it's really great just to see that people need this. And if I have to switch gears or switch the tracks that I'm on to enable people to have that improved quality of life sooner, I will.

It was definitely not something that I was supposed to do until after graduating since it has complicated some things and I have been getting much busier, but running my company is what I love doing. So, for me, it's not work, it's just fun.

Lisa Bragg:

Now, your parents have been instrumental because you mostly made this in your basement. Tell us about the role of your parents in this endeavor.

Lianna Genovese:

Yeah. My parents are my best friends and biggest inspirations. My mom actually created her own nonprofit organization called Making a Dent. So, she's a hygienist and she creates these oral care kits to provide to cancer patients during chemotherapy and treatment. And she made it on our ping pong table in our basement. And she was doing that maybe when I was 16-years-old, so she obviously recruited me and we made these kits, and then we would package them all up and bring them to the cancer assistance program, and that was super rewarding to see. And I think she really taught me that you can start anything from nothing as long as you have passion. My mom doesn't come from an entrepreneurship background. She just is a woman who is inspired and passionate, and she saw a problem that needed fixing.

So, for me, seeing her create something out of nothing made me realize when I wanted to bring Guided Hands to the world as a commercial device, I kind of had that why not mentality. Why can't I do this? Why can't I create a huge assembly line and five 3D printers running in my basement? Why can't I do that? So, I think she's just been so inspiring for me. In the beginning stages, she was sitting down beside me. She was working on the sewing machine. I was working on the 3D printers, and she helped me, right, when we began creating prototypes for Guided Hands. And yeah, she's just my

biggest cheerleader and she supports me. She's a great shoulder to cry on. I can't say enough amazing things about her. And I really hope she watches this.

((Music))

Lisa Bragg:

You did start with some ideas of sustainability in mind as you built out the product. And that was one of the reasons why you won the BMO Celebrating Women Grant. Tell us a little bit about sustainability and why it's important to you.

Lianna Genovese:

Yeah. So, with Guided Hands, sustainability and the sustainable development goals really just came so fluently with Guided Hands. Guided Hands is not only a mechanical assistive device that can help someone perform an activity, but it also does have a really social aspect to it. So, for instance, one of the sustainable development goals is Quality Education. So, for children who have used Guided Hands, they can use it in school. They can get away from that hand over hand with their educational assistant and really perform their own work, be more independent, be more creative and give children that ability to really thrive and reach their full potential in the classroom setting.

Another sustainable development goal is Reduce Inequalities. So, with Guided Hands, of course, we just want to enable these people to perform or reignite these lost passions of theirs. Unfortunately, with their medical condition or injury, that might prevent that. So, we really just want to give them an equal opportunity as other people do. And again, just the mission of our company is to create awareness for people living with a disability and creating the opportunity for others to be inspired to create solutions for these individuals so that they can live a wonderful life and just improve their quality of life as well. So, it was very important that we incorporate that into our company mission, into our product so that we can really and truly make a difference in the lives of others.

((Music))

Lisa Bragg:

It's a really messy process. And I think people are always afraid of the mess. Why aren't you afraid of the mess?

Lianna Genovese:

Well, I think kind of going back to my mom, she was the one who inspired me that, why can't we do this? If a challenge comes up, you solve it. You reach out to someone and you ask for help, and you just, again, use your passion to drive you forward. And entrepreneurship is certainly messy. Sometimes you don't know where you're going, especially at the beginning, but it's all about trial and error. And I think really learning from your mistakes, for me, I don't see failure as a fail. I see it as your first attempt in learning, or find another important lesson, because you just learn so much by doing.

And for me with again, having an engineering background and learning business on the go and applying what I learn in a workshop the next day into my business, I think it's the best way to learn about business. Learn by your mistakes. If you don't make any mistakes, that's wonderful, but just really surrounding yourself with people who further inspire you, people who believe in you, because if you ever doubt yourself once, you're going to have these inspiring people tell you that you can do it. So, it's really about believing in yourself and creating a support network of people who can believe in you as well.

So, bringing us back to the BMO Celebrating Women grant, I now have so many inspirational women who believe in me as much as I believe in them. And it's just building a community where everyone just inspires each other. And I think that just is what gets you through some difficult times and some situations where you may doubt yourself. So, I think it's just really wonderful to create that community and just further inspire others and let them know about this crazy, messy journey, and let them know that it's all possible with a right mentality, a right passion, and a really strong network behind you

Lisa Bragg:

And look how many people you're already helping, so that's beautiful. Lianna, on Bold(h)er, we always ask these three questions. When do you wish you were bolder?

Lianna Genovese:

Quite frankly, I feel like I've been bold my entire life, but I think maybe at the very beginning when I started my company, I guess I kind of hid behind the curtain a little bit. I was meeting with patent lawyers and I didn't understand the terminology they used, obviously, because I didn't have that background. And I would just write them down in my notebook and Google them later. And I wish I had that confidence to say, "Can you just pause for a second? Can you maybe explain further about that term that you use? I'm not following." I wish that maybe at the beginning, I did have that confidence to acknowledge I don't know this and it's okay. And I'm speaking with a professional who should understand where my background is and make that conversation in a way that I can understand what they're saying.

So, I wish I was a bit bolder then, but again, learning from the mistake of not knowing or not asking. I persevered and I ended up taking a business night class just to understand that terminology that he was using. That really shaped me as a person to persevere, and I knew I needed to educate myself and fast. So, I took it upon myself to really go out into the world and figure out, how am I supposed to learn this? But I think that would probably be the time where I would want to be just a little bit more bolder.

Lisa Bragg:

Tell us a time when you were bold. Now, you said you're always bold. But tell us a time when you were bold.

Lianna Genovese:

Well, I think just right from the beginning when I was bringing Guided Hands to these medical institutions, it was a prototype, and I was making cold calls. Actually at the time, I didn't even know they were called cold calls. I made a list of all of these clinics, and I called them up and said, "Hey, I'm an engineering student. I have a prototype. I think it can help your patients. Can I come in and do a demo, or can I test with some patients?" And I think that was very bold that physicians had time to even speak with me. But for those who did give me that time and that opportunity, it was just amazing. So, I think I was quite bold to assume that people had time for an engineering student to bring their prototype in a garbage bag to introduce to them. I think that was pretty bold of me.

I think, again, I had that mentality of this is fine. Why is this weird? Why is this unprofessional? I'm just trying to get people to test out my product, because I'm curious. Why can't I figure out what I'm curious about and kind of see it through? So I think that was a little bit bold of me. Looking back at it, I think it's quite funny that I did that. Yeah. I don't know what I was thinking, but it worked out.

Lisa Bragg:

It worked out. What would you say to your 12-year-old self?

Lianna Genovese:

Well, part of me would say, have a little bit more fun because when you're 22 and running a company, things are going to get a little hectic. But my 12-year-old self, I think it's just be compassionate towards others and really take time to understand what other people are going through. And I think just at the end of the day, when you want to be an engineer one day, or if you want to be a doctor one day, or whatever you decide to be when you grow up, just having that compassion and having just something that inspires you and gets you excited is really important. Lianna, you might not find it today, but soon you're going to enter this huge world of university and entrepreneurship and engineering. You'll find it one day, and it's okay that you don't find it now.

I feel like as a kid, I was always stressed out about, oh, I don't know what I want to do. Even when I was in engineering, I didn't know if engineering was right for me. I was thinking I was going to pivot and go into dentistry, and my mom was quite happy about that. And then when I told her that I started my company and went into entrepreneurship, she was a little sad because she always wanted a dentist in the family. But I think it's okay to not know where you're going at sometimes, but just to really have compassion and to just be kind to others is so important.

((Music))

Lisa Bragg:

That was Lianna Genovese, inventor of Guided Hands. You've been listening to Bold(h)er stories of and for women who stand out, brought to you by BMO for Women. I'm Lisa Bragg.

So many of you found the show because it ranked on a list. I'm hoping you'll help others to find it by giving the podcast a five-star rating. Every star counts.

Thank you. Keep being bold, see you soon.