# Take on Board

Transcript – Jennifer George

Helga Svendsen 0:00

Today on the take on board podcast, I'll be speaking with Jennifer George about how you can make a valuable contribution in the boardroom, in discussions around technology, even if you're not a technology whiz. So firstly, let me tell you about Jennifer. Jennifer is the CEO of strategic commercialization Australia, a firm which works inside businesses to bring new technologies to market. Jennifer has a background in finance. She's made several companies and worked in more than 50 industry sectors, including new energy, biotech, telecommunications, digital twins, blockchain and smart cities. She's currently on the advisory panel for smart cities standards Australia and was previously an advisory board member for a Little Tokyo to a startup incubator. Welcome to the take on board podcast, Jennifer, thank you.

Jennifer George 0:50

Thank you. That's a really nice introduction.

Helga Svendsen 0:53

Well, look, Jennifer, before we explore technology, we've heard your official bio, but can you tell me a little more about you.

Jennifer George 1:00

Yeah, well, gosh, I think you're going to find that I have the most diverse background that you'll ever come across. So I started as an art teacher, then I went to the US as a professional squash player, worked with a few startups during the the tech boom. And then I worked in finance moving to Australia to work in the in finance in just before 2008. And then I started building companies. And as one does when one becomes a consulting company, you take whatever business can come to you. So my first jobs were in oil remediation, and water purification and all that kind of stuff. So I had to turn my mind to all different things that I didn't know about. And that's why I can tell you that it is possible to do whatever you want to do in terms of tech. You can understand it really. Yeah.

Helga Svendsen 1:57

Fantastic. Yeah. So I mentioned In your introduction, that you've made a number of companies, and I know when we had a brief chat prior to this, unlike you made companies, what does that mean? So rather take on board community, can you talk us through what does that mean?

Jennifer George 2:13

Yeah, Helga, that's a really great question. because not many people understand what commercialisation is. Say. It's all different things. And people are founders. And but I'm not a founder. I'm actually the great forgotten part of a company, right? Because when I have to take a technology I need to realise, look at it and say, Okay, this has this potential. And then I'll say, Okay, let's tested the market. And let's test it with its patenting. And let's test it with all these different milestones, and then say, Oh, hey, we could probably make a good company. So then you try and get all the people involved, who you need to need a founder or need a funder on the people who are industry experts to say how great it is and to be on the board to be advisors. So I need all those different parts of pieces. But then I also need the supply chain need to understand who will benefit from this, who will want to get money from this, who will be a first customer, all those things. But then once that's done, you do the negotiation, and you're completely out of the picture. Yeah, so you bait basically I'm in the profession of raising a baby and letting it go. Because the entrepreneurs have to own it, it has to be their idea. And in order to do that, they have to say it wasn't yours. That even get to that point of saying it it's just a shame that they were right there from the beginning and they didn't even need you. Yes,

Helga Svendsen 3:41

You are totally the behind the scenes. Yeah.

Jennifer George 3:44

Going into commercialisation to be a superstar. It's not gonna happen that won't be going oh, look around the crowd. Not gonna happen. Yeah.

Helga Svendsen 3:54

Okay, that is really great background info, not only about commercialisation, but also about You and how you operate. Thank you. Now I mentioned that you're a member of the advisory panel on smart cities. Can you tell us about that organization?

Jennifer George 4:10

Yeah, look, the standards Australia, obviously is a very prestigious panel for Australia. They review all of the standards and all the different areas and they have subcommittees and each one has a particular area of interest. And my area of interest is smart cities, smart cities. Gosh, we see all of these different pieces of standards at various points of being developed all the time. So some of them about cloud, some of them are about data, some of them about digital twins, other others about AI integration. So you really have to be across all these different technologies. And where I absolutely know from this, the digital transformation that's going to take place in the next five years, is going to go out of mind blowing proportion in those next five years. So, whereas before we saw individual types of tech, now it's going to be through two or three. So AI with machine learning with the digital twin with blockchain, and that integrated will have to become a new, what path is and that'll be remaking the foundations of a economy. And that's really important because in the past, it was okay to say, Oh, well, you know, I just don't know about that thing. But now that thing will be an integral part of this other thing. And so you can't just remove yourself from part of the conversation. You have to own it, and the other, participate in it. So that's why I really think it's important for people who are non technical, to realize that you have got this, you are definitely able to be part of the conversation. So what I want to talk to you about today is really about that real second, that moment when you get offered the opportunity to talk about a technology and you, the blind goes up. And you say, Oh, no, that's not my area or, you know, I'd really like to know about this, but I don't have a degree or whatever it is, that obstacle just is not necessary. Be confident in your own knowledge. And I have these kind of key points that I will help to tell that.

Helga Svendsen 6:22

I know, in my own experience, and I have no doubt for some of the people listening we, you know, technology is and digital disruption is something that is discussed more and more in the boardroom. And it's not an area of specialty for everybody in that boardroom. So we're lots of us are grappling with that transition to the digital economy and lots of us are feeling a little out of add depth in those conversations and a little overwhelmed by it all. So it would be great if we could talk through some of your tips. For those of us in the boardroom who are grappling with it and some ways we can feel more calm. Front to deal with issues around technology and those technology discussions. So where should we begin?

Jennifer George 7:06

Well, the first thing you want to know is that this you know, already, but let me just make it clear that every subject has its own vocabulary. And in some ways, it's kind of exclusionary by nature. I mean, you don't go to the doctor and expect them to tell you about basic things you expect them to talk in, in Latin and diseases and all that kind of stuff. Engineers have similar kind of language barriers. Every technology and I've worked in 50 years all have a language barrier. But once you've got used to the vocabulary, and the acronyms, maybe a few concepts as well, then you've pretty much got a good idea you can start to settle into that conversation. So it's really only knowing just a little bit more than what you currently do. So, you know, if you look at as a language barrier instead of a knowledge barrier, this is really important. So for example, In engineering, I might talk about chemical hydrolysis, right, or thermal hydrolysis. And you can, you know, I'm not an engineer, that's not me. But you know, chemical hydrolysis is just using chemicals to break something down. And thermal hydrolysis is just using hot water to break something down. So if you wash up your dishes every day, you're doing me I'm a thermal hydrologist.

Exactly, and that's the whole point. It's just the vocabulary. These underlying concept for thinking about you know, I we know, the intelligence side, yes, so we know what it is to raise a child and we know that we have to say the same thing to them 4 million times in order to get an action. Well, that's what I went training and i i you got to have at least 700 repetitions of the same information in order to develop the first basic AI. And then as soon as that AI starts to come up with solutions of its own and is trying to look Further, it becomes machine learning, and it becomes more general and starts to be having more of a decisive element to it. Then you've got artificial general intelligence, all of those things we already know. So,

Helga Svendsen 9:15

So it's applying our own general knowledge to a technical space and just having that confidence to apply. Exactly. Exactly.

Jennifer George 9:23

Yeah. So that's point one. The second point is basically, we always assume when we don't have knowledge, we assume everybody else is an expert. Well, you're like, Oh, yeah, he must be the best. And the reality is, like I said, 50 Industries, I know that there's a lot of fakers out there. Not everybody is real. There's a lot of really good and highly qualified people. Don't get me wrong here. You know, I don't say any of this conversation in order to devalue would minimize the education and the the importance of any of these subjects. It's just that we really have to under What we need to learn in order to be successful? So those people who are a so called experts? Well, as soon as you start to ask questions, as soon as you become more confident, then you'll realize that actually, you have a lot more of what you need to do. Right. So the next point is really that I, and all those other areas only exists within a context, my account to I about nothing. It has to be about pharmaceuticals, or health, or something else, every part of the digital world has to be aligned with something else. And here's the most exciting part. You already know about that field. Yes. So there's 50% of what you need to do in order to take you to the best use of that technology. So you already have a half of what's needed and the other part is just Determining what the subject matter is, you know, and looking at Well, okay, I've figured out the vocabulary or figured out the main ideas. And then oh, guess what? I'm in the conversation. Yes. So then if you can get into the conversation, then you've got all these people who are actually training you to know more about the subject. Yes. Except, I guess if you go into a conversation, you know, most people, you know, they start talking about AI, for example, or, you know, smart cities, digital twins, and they say, Oh, yeah, actually, I don't really know what a digital twin is, right.

Helga Svendsen 11:38

I don't really know what it is. Right, if you could explain it. Yeah. So I'm not afraid to ask.

Jennifer George 11:45

Exactly. A digital twin is basically a digital representation of a city. It could be a person or process or manufacturing. But a digital twin is a real time dynamic model where you can try out you can collect the data, do predictive analytics to be able to figure out what might go wrong? Or maybe you might try a different solution or something like that. But you can do a look blue Smart Cities are very much about what data can we extract? And then can we use real time? Can we provide it real time to our citizens instead of actually just making it so they have to put in an application three months later, then you get it? Oh, yeah, it's real time. So the digital twin is basically at a basic level. It's a three dimensional model, but then it actually has to deliver some real time benefit of knowing and it's over time so it's not just 3d becomes 4d. Yeah, right.

Helga Svendsen 12:39

Right. So it's Yeah, I'm glad I asked before.

Jennifer George 12:42

Right, so you can understand is something gonna wear out is the process gonna work over time? I worked on a biorefinery and they had a very small amount of acid in the chemical hydrolysis.

Helga Svendsen 12:55

Which you now are expert

Jennifer George 12:59

In the lab studies, they use this small amount of acid in the mix for the process. But when they went into major production, the acid in the mix sat on the bottom of the tanks at the end of the day. And so a little bit of acid was, which was nothing in a trial, you know, when you're doing your pilots and all that kind of stuff, I have a short term, ever long term went through all of the pipeline, right? So we actually had to replace all of the processing plant equipment, because this tiny bit of acid over time, created a different response and what it did in the short term. So understanding how things work over time is fundamental to building a great company. And so with digital technologies, when people start to think of how this is going to work for us, they have to think about how it's going to operate with their existing systems and how you know, legacy systems they have that need to be change, but also how will interoperate with new connectivity then it meant so a hospital might want to become connected to a whole city, the electricity, their modification might want to become closer connected to the grid, not just on a electricity delivery basis, but on a data collection basis to understand how we could deliver much better electricity in the long run. So understanding how these things all to go together, they work with a digital twin, but they also work with data collection, there's no reason and collecting data and they are going to use it, you know, so this is the point where I'm trying to be from the beginning is it was okay to sit on the sideline before and say, Hey, you know, 5g is 5g, it's not gonna affect anything. Yes, the 5g is going to affect a whole lot of things and it will be part of the digital twin and it will be part of a smart city and it will have all of these different ways of affecting a lot of people. Putting Internet of Things Yes. But they don't think about what telecommunication system they're going to need for that. And, and they don't understand that they have to have a, you know, Business Information System in order to integrate that. So there's always different elements when you start to think about technology. And I guess one of my last points and I know that conversation will go further, but one of my last points is really that there's so much Yes, we're so worried that you know, we all are problem solvers. Right everyone that's on a board is a problem solver I'm and the best way to problem solve is to break it into small parts. So whereas the avalanche of change and technologies is going to be in and of itself is kind of scary and it's Oh my God, this it's not take it like we take any other problem and break it down and to its fall apart, right? And make sure that we kind of addressing those smaller parts. One at a time. Yes. Go back when the vocabulary, look for concrete examples, look for it, examples within your industry and try and say well, okay, I don't need to know all about this. I know about my industry, these parts I need to know. So if you were to go and say, say, Well, I came in the pharmaceutical industry or the health industry, say health industry generally. So you say, Well, okay, what can I find to read about this and you in a traditional education world, you'd go back and you go, Okay, I'm going to get what is AI? And then how does it work? How would I implement it and what are the different signals and how do I how do I put this into practice? And that's the way you would make an engineer in that particular subject. That's not what you need, huh? I've learned this is really cool way of landing stuff. Yes. And that is simply go where your curiosity takes you find a subject like so you want to know about AI? Well find an article that tells you about AI in the pharmaceutical industry and find something that has, you know, really that's really interesting to you like how much new revenue is AI gonna deliver to the pharmaceutical industry? Yes. And then think about what the reverse of that what's the reverse of that? Oh, what's going to be the downside right. Now, you see, so follow the thread as long as your curiosity takes you. Yes, there's really good evidence to suggest that if you do that, you will actually remember it more. Absolutely. Because of it. You know, you mean you look at it remember your class at school, you know? Yeah, I was leaving. You don't really remember anything? Yes. Well, this is an opportunity where you either say, Okay, look, Where can the information take me? And my hypothesis is that if you Do that for you to sit down and choose the areas that are really most interesting to you. And then you follow those threads. Yes of information yourself for, you know, three weeks when you really make some some headway in the first week, you just be learning the vocabulary. Yes. In a second week, you'll be starting to have conversations, right? And then the third week, you should be ready to kind of go to conference or goto meeting where everybody's talking. Because when people talk to you about a subject, it's just the perfect way to learn. Yes, you know, Hi, Joe. You know, I know a little bit about zemo hydrolysis. Yes, tell me a little bit more. And then you get going and people will tell you, and then you just say something like, how would it relate to my industry? Or one of the things that I would trip up people, you know, one of the biggest problems in this because you open that conversation Then people will start to share and I have not found any time where you don't quite have a ready flow of people who want to be your expert.

Helga Svendsen 19:10

I was going to ask you this exactly for you, where do you find the people that are going to help you with these sorts of conversations? Where would you start? Look, I talked to people on the train.

Jennifer George 19:22

I do Honestly, I, I talked to people at airports, I talked to them everywhere. You'd be amazed where you will find people with remarkable knowledge. And if you just assume so there's this confidence that you're not going to make a fool of yourself, that you're not going to be tripped up by somebody else's knowledge that you just, you know, Oh, that's interesting. Tell me more, you know, help. Help me to understand that and, and you'll be surprised how much one or two pieces of vocabulary that shows your understanding helps you to get further along the path. Right. I've been doing new tech, since I left finance in 2009. Yeah. Since then, I've read about the 3000 PhD papers.

Helga Svendsen 20:02

Oh my goodness, so how?

Jennifer George 20:05

About the first one is about like this, I became a Wikipedia queen. I was like, Oh, so I had all these a timber technology was all about microbials in timber. And I just went on this hockey stick learning curve and but once you do that, then you start to see similarities. You see, we hold ourselves back so much, and I can say that I hold myself back and a lot of things but not in learning and learning. I'm a free Wheeler, I don't put the brake on. And if I find a path to something that I'm interested in, then I will travel along and learn that but once you're free willing, you can say Oh, wait, what do I need? What can I understand from that? How can I know this area better? And you get the same excitement? Yes, that you will get from others things like sport or running or inflammation. It becomes like an endorphin rush. Almost Just understanding the world you live in. I used to have a friend who who made you don't like to do multi size jigsaw puzzles and that he used to do. But his 5000 piece jigsaw puzzles only had a picture of sky. Oh my god Yeah, exactly. So he later you think about jigsaw puzzles when there's a point we go from, I don't know where it is to, oh, I see most of the pieces. I see a vision and I also insane that vision. I've also become more aware of the unique intricacies of each of the pieces, right? And you Oh, yes, this one will shape into that one, all that kind of thing. As soon as you start to dig into a subject, you get that excitement of going past the discovery stage into the really rich area of knowledge that you say, Oh, that's exactly like that. Or you know, I when I was doing financing Wall Street, we did Monte Carlo simulation simulations for how portfolio will be one of my most fun things when the very early, I was walking down Second Avenue. And I heard someone talk about a Monte Carlo simulation and engineering. And I thought that I actually already know and I know I can translate that happens all of the time. So once you start moving across different industries, you really got this, you really can understand all these different things, because you just take the step. Yes. And it's really exciting to do that.

Helga Svendsen 22:32

So where might be you know, I think I'm hearing that the first step is getting across the language, some of the kind of technical terms around at all. Have you got any suggestions for resources for people about where they might start if it if they're not going to start with the 3000 period?

Jennifer George 22:47

Where might be a book started an article? Look, there's such good press articles that you can get now. I would just do a Google search. Like I said, Just find something like so. What's the Kagan for growth of AI in our industry, or where would a digital between fit in the health industry? And then what you would do then is I'd sit with that article and then just write down the words that I don't understand. And then just go and search those. And then once you've done that little bit of research, oh, yeah, acronyms, or the abbreviations, I should correctly say they always trip everybody up. And I've got to say, and asik in silicon chips is different from an asik. And finance. Yes. So people use the same terms in a whole lot of different industries. So you got to be aware that things have different meanings. And then read another one. Yes. And then what I would typically do is say, well, maybe I should write a page or something about how I feel about this subject. Yeah. And what that does for me is it makes when you when you read something, you get a good cursory information and you could certainly answer a question on it. But to actually be able to feel confident about it. You need to put in what your position is. And it's a really great way of doing things. So understanding that if you write it down, even just for two, two pages, that's it. Yeah. And then you take your position, and then you become become a lot more comfortable about this. And, honestly, like I said, you know, if you do the vocabulary, and you understand that you're 50% of the way already, and then you move that benchmark back and say, well, the guy who I thought was an expert, yeah, and he knows the information around delivering that pitch or that subject. They are only an expert to the point that they need to know. But that's all you need to be.

Helga Svendsen 24:47

Yeah. And if you want to make much more equal footing,

Jennifer George 24:49

exactly, you need to be the expert to the point you need to know if you put it say, Oh, well, you know, I can't speak until I'm a PhD in this. Yeah, it's putting way too much unnecessary. pressure on you understand that you are expert in your industry and no one other than someone in that industry is going to be able to deliver the great questions. And every piece of data is undermined, has to have a great question that it's solving. It doesn't operate by itself. So find those great questions, and then work backwards. Yes. And honestly, it will be very much more a sense of confidence that you bring to the table. And here's a last another thing. We said to me, the last thing anyway, developing a culture, a leadership culture that has the whole area of digital transformation embedded in it, that has the confidence if you as a leader and a board member, offer your company the opportunity to start to think about how can we all be confident How could we Push to them a feeling like they've you've got this Yes. If your supply chain people start to embrace new technologies and a given the opportunity to show and share their ideas, because we respect the fact that they already know 50% of what we need to do, then you're actually creating a wonderful environment to grow into this new area. That was scary before. But it's not scary now, because you take a little bit of time to get the vocabulary and understand it. And then Okay, well, we're going to have a whole company, we're not going to invite an expert in and kind of go and go after the next shiny new object, you know, what we're going to do is we're going to be really well informed, and the people that we bring in, they're going to add to our information. And you know, where do you own 50% of this information? So we're going to be asking them the tough questions, we're going to ask them to apply this. We're going to be able to pull out where there's a problem with you know, you're not really solving our problem. Do we need to bring In our pieces of technology, is the solution we need an integration of two or three parts? Or is it something that a product will do or something we need to build your custom build for? Whatever it is, you're actually looking from a delivery perspective, and building a whole team within your company all who were thinking along the same way

Helga Svendsen 27:21

In the whole culture within the organisation. Yes, ah Jennifer. So many incredibly practical suggestions and tips and tricks table for feeling a little bit less overwhelmed by some of this technology, conversation,

Jennifer George 27:34

Sorry, I mean, I really do believe it, you've got this. You really do have it, just believe that you have it and take a bit of time to learn the vocabulary and it will be possible to actually make this into a new way of thinking on a larger scale. What I'd like you like your listeners to do is to create a hashtag, you've got this technology. I started off with the idea You have hashtag you've got this, but, but it's been taken by so many of you from.

But so but make it the technology at the end, for two reasons, we can actually write down our journey

Helga Svendsen 28:13

And help each other out

And help each other but also the writing of itself. Does that gives a purpose to that one or two pages that you start to think about in terms of what's my position on this? Where do I stand? And how do I know this? And what do I need to know all of those real questions? And imagine if we had a more educated, whole community

Jennifer George 28:35

with the joy that comes from them?

Helga Svendsen 28:39

Well, I think that is a beautiful spot for us to finish our conversation on. And as I say, a conversation so rich in practical tips and ideas. So thank you so much for joining me today and sharing your wisdom with the community. Yeah, I think it'll be incredibly helpful for people. So thank you.

Jennifer George 28:55

You're very welcome.