Season 7: Navigating a Global Career Amidst Emerging Technologies
Episode 5

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Stacie Berdan:
Welcome to the global careers podcast sponsored by GW-CIBER – THE source for inspiring stories from seasoned professionals who have embraced a global role and reaped the benefits. We offer practical advice and insider tips across a broad swath of industries and fields around the world. Whether or not you've considered moving abroad or taking on an international role, globalization will impact your career. So join us for a lively discussion as we explore what an international career really means. My name is Stacie Nevadomski Berdan and I'll be your host!

In season seven, we focus on the intersection of technology and globalization across all types of industries and functions. What aspects of tech do we all need to understand to adapt and thrive in the workplace? What types of global tech jobs are out there? And what skills are needed to compete? Join us as we hear from seasoned executives who will help us navigate global careers and emerging technologies around the world. Today's guest is Tim Gilday, a Senior Director in Emerging Technology at GDIT, General Dynamics IT division. Tim is a futurist thought leader focused on the ethical and optimal application of emerging technology for the US government and society. As such, he collaborates with the government, academic, and industry leaders to identify global risks and opportunities, as well as develops policy and practices to guide digital transformation. Cosmology, physics, and emerging tech have been lifelong passions. And Tim is a GW alum, having earned his MBA in International Business with us. Welcome, Tim, t's great to have you.

Tim Gilday:
Yeah, thank you for having me here, Stacie.

Stacie Berdan:
Yeah. So, let's get started. One of the objectives of this podcast is to provide a sense of the careers that are out there. As a Senior Director in Emerging Tech for GDIT, what is it that you do?

Tim Gilday:
Well, I'm very fortunate… In short, I like to say sometimes that I get paid to learn. So, a lot of what I do is keep abreast of changing trends, and which vendors and technologies are emerging as potentially valuable, especially in the US government space. So, a lot of that time would be spent with academia, experts inside my company, industry experts, and government experts – understanding their points of view; then also trying to bring that together to pinpoint vendor partners out in the US mostly, who we'd want to team up with to try to apply those technologies in the government space. And usually, that begins, since they're newer technologies, it tends to begin with pilots, so getting the right individuals mapped to those agencies that are interested in it is half the battle.

Stacie Berdan:
Wow. So, what are some of these emerging technologies today that you recommend?

Tim Gilday:
Well, some of the most flashy, or exciting technologies that we're exploring include quantum computing, post quantum cryptography, and quantum sensing. And then, of course, everybody, if you're not living under a rock, at this point, know about artificial intelligence and the many sub-branches under it. Right now, of course, generative AI and large language models are very popular. And we're working with the government to try to understand security around that, to make sure that they can leverage this new technology in a safe way. There's also Internet of Things, advances in application development… And then, a variety of enterprise IT incremental and revolutionary breakthroughs that help make automation and processes and workflows more convenient and reduce risk, while at the same time, freeing up time and energy from government employees who maybe in the past had to do a lot of manual labor but now the computer can do that for them so that they can focus a little bit more on the creative and leadership aspects of their roles.

Stacie Berdan:
Okay, great. So, enhance creativity and efficiency – that's very clear to me. But what are some of these other concepts? You lost me at kind of quantum, so can you kind of share some examples maybe of how these technologies can enhance an agency, an organization, what have you?

Tim Gilday:
Well, agencies, historically, they've been very cautious about bringing in new technology, because they have limited budget, and that's our taxpayer money. So, I'm glad that they're being careful with it. They often prefer to watch how a technology is adopted in its first generation by industry in the rest of the world, other big companies, and then learn the lessons so that they can pull it into their agency in a more accelerated manner, without having to be a trailblazer and make the mistakes themselves. Of course, some agencies really have to stay ahead of the curve for cybersecurity or other reasons. National security, of course, is a big driver. But now, and we can talk more about this, but part of the challenge is that the pace of change is increasing, including technological change. So, it's harder for agencies to sit and wait and watch. And they understand that they need to figure out: 1) what are those technologies they should be exploring to potentially pull in, but also 2) how would the existing acquisition cycle and cybersecurity and compliance requirements, how can they pull these technologies in faster? So, at the end of the day, I think what they're trying to do is ensure that they don't get too far behind in such a fashion that it's easier for cyber hackers or social engineers or other bad actors to take advantage of any gaps that might open because their technology may be older or becoming obsolete.

Stacie Berdan:
Just seems to me to be absolutely… yes, please spend my taxpayer dollars toward making a more efficient, effective federal government, no matter what the agency is. It seems like, in a way, that actually it's kind of crying out for these kinds of solutions, don't you think?

Tim Gilday:
Yes. And you might have heard of a term called technical debt. And that a lot of agencies, they, over the years have accumulated a variety of technologies. Maybe these might include enterprise tools that span a variety of capabilities, but they might not use all those capabilities, but still, from a licensing perspective, they may have to pay for most of the product itself. And then they have a variety of duplicative products or capabilities purchased over the years. And these agencies, along with those products they have process redundancies, and the agencies are really looking at this as an area to improve operationally. But it's hard. It's easier said than done to reduce technical

debt. Sometimes you get lucky and you can have a full out what we call “rip and replace”. But that's the rarity. More often than not, this has to be done incrementally, because even within one agency, there's not a single voice, you may have the agency broken into federated parts, where contracts have different end dates, different groups within that agency may have different needs and timelines. So, even though from an outside perspective, it might look like a slam dunk concept to just put in a brand-new tool that encompasses 90% of their existing capabilities. It's really hard on the implementation side. So, this is a challenge that the government is working with every day.

Stacie Berdan:
Yeah, clearly… clear challenge. With respect to emerging tech, what other types of companies, institutions besides the US government, because I think you can speak a little bit more broadly, what are we all not really prepared for that you're seeing?

Tim Gilday:
Well, yeah, this is a philosophical question that's near and dear to my heart. We work on this in a variety of ways. One is not just within the US, but, I mentioned before, we do try to associate with think tanks, academia, policymakers in the US. But it's also important because in Europe and with other allies, for the US across the world, and even bad actors, we can learn something, we try to stay on top of when other countries or our partners out there are experimenting with new technology, or they're running into geopolitical or sociological issues before we necessarily experience it in the US. These are things that we try to learn from. And right now, one of the challenges is that the US government, they have a variety of forward sensors that try to look for this, but it is, there's not a centralized function. At best, we have a variety of cybersecurity agencies that do a better and better job every day of sharing information about growing cyber threats and intelligence about risks. But for me, it's more than that. It's more than just cyber. Like I mentioned before, it's this increasing pace of technological change that's hard to grasp conceptually, because, as humans, we tend to think linearly and incrementally. But Bill Gates had a great quote, and I might misquote it, but it was something along the lines of ‘we tend to overestimate what we can achieve in one year, and underestimate what will be achieved within three years’. And that, in short, is that example of the exponential curve. So, from my perspective, what this implies is increasing volatility, both good and bad, from a technological perspective. And what that means to me, if I extrapolate that further, is bad actors or state actors who might have nefarious intentions. They used to be the only ones capable with their funding and resources of actually achieving badness at a large scale. But now, because of the improvements in technology, that ability to impact, create negative, impact has actually started to slide down to smaller groups who are really specialized, and maybe not as well funded as in the past but they don't need to be because technology has jumped the curve quite a bit. And we're getting to that point where technology is becoming so powerful that even a single individual is going to have an easier and easier time to be productive, but also, unfortunately, to potentially create damage. And as we slide down at scale from large groups of state backed actors to medium-sized groups to individuals, I think, on average, we slide from like a game theory perspective, from the idea of forced rationality down to potential irrationality – so an individual has more likelihood to act irrationally than a group that will balance itself out to prevent things like mutually assured destruction. Or as an individual may not have the care, may have a different mindset or other factors, having just a bad day, and then potentially do something a little bit more damaging. So, these are some of the Dark Side concerns that we have to look out for. And that's one of the reasons why I'm a big proponent of working with the US government to get out ahead from a policy-making perspective. So that we're putting principles in place now to help shepherd safely the rise of these emerging technologies and make sure that we're getting the optimal benefit out of them, as opposed to opening the door to misuse.

Stacie Berdan:
Yeah, oh, my gosh, your job is so important. And clearly, I mean, some of us think a little bit every now and then about cybersecurity and digital security. But what you're talking about is, wow, so much bigger. And clearly it's here, right? It's not as though we're just kind of waiting for it to happen. You speak a lot about tech, I can actually

hear your industrial organizational psychology kind of training coming through. But do you have a tech background? I mean, how did you get involved in all of this?

Tim Gilday:
Yeah, I like to use myself as an example of, if you're early in your career or you're just exiting undergraduate school, then you don't necessarily have to have fear that you need to start sprinting for the rest of your life in one decision, you know, one area that you have to work in. You can change your career, you can reinvent yourself many times. And you need to figure out what you are interested in, what makes you happy, and what makes you feel like you're making an impact or significantly changing the world in the way that you want. And so, for me, I had good exposure to other topical areas like computer science and the hard sciences. I ended up graduating with an industrial organizational psychology degree, and for me, that was actually a great start from a business perspective because this is how businesses perform, how you measure the outputs of teams, how you generate and drive culture. So that actually stuck with me with every organization or activity I was a part of, because it trains you to look at certain things from an optimization perspective, and how to get the most out of teams. And pulling that with me, and you read in the intro about my passion for science in general, especially cosmology and physics and other emerging tech like AI, and luckily, that interest has kept me kind of self studying all these years. And it was enough, I don't have the engineering background that maybe preferred, but it was sufficient from a technology perspective to do what I do. And what I do is, you could call it a mile wide and an inch deep – I have to cover so many different emerging technologies. And it's less about being the deepest expert in any one of these and more about how good are you at learning? How good are you at trying to intake the core concepts and the logic behind a conceptual area, and then figuring out how that mixes and intertwines with other systems of thought and other applications and technologies, and then leveraging that in some way to help support whatever it is you're doing. And in my case, that would be the government space. I think if you do bounce around, like I have, you end up hopefully accumulating a broad variety of domain knowledge areas. And ideally, you should be trying to tie those together. Because again, it's great to be niche and stand on the shoulders of giants and go as far as anybody has in one single area (there's a lot to be said for that), but if you don't, and you find a lot of joy in so many different things, you may want to try to weave a narrative together and leverage what you've learned in each of those to make yourself stronger in your most current opportunity.

Stacie Berdan:
I love this, it's great advice. And I want to ask you to expand on this a little bit, because you touched on how you've done it in the learning… and that's clear in so many of the professionals that I talked with, in the Global Mentors, that learning and learning tech is important. But what piece of advice would you give students, whether undergraduate or grads, about the role tech will play in their careers? So many people are like "Oh, I'm not doing coding, I'm just going to be in finance, I'm going to be in marketing…." What would you say to these students who think that tech is not part of their life, their career?

Tim Gilday:
Well, I don't I don't think I'm giving new news here, but there's pretty much no job that's going to be without IT or some kind of technology as we go forward into the future. There absolutely will be a fringe area where you don't have to leverage some type of technology, but, in the most part, I think it's going to make people able to do more faster and easier. So, if you look at some of the groups like Gartner, Forrester and others that do research in these areas, one of the things that they are suggesting is humans aren't going to be replaced by AI anytime soon, humans are going to be replaced by human+AI teams. So, if you already know how to code, well, then that's great! In today's period of time, then you're way ahead of the curve, you're able to make some applications that can automate or help you do things faster. But if you don't know how to code right now, and I always recommend learning some of the basics just because that helps you to think in a certain way, and I think other great thought leaders out there have always recommended, you don't have to become a great expert in coding, but learn at least one language at its basic foundation so you understand the structure and the syntax and why computers work the way they do. Once

you do that, you don't have to dive any deeper. What I would suggest, personally, is start to learn about these large language models and generative AI. These are changing and growing every day. So, some of the shortcomings that you might run into today, or what appears to be a stupid answer that you're getting out of these systems and models today, it's not going to be that way next year, or two years, or five years from now. So, the more you understand these tools, and know how to tweak them and get the best out of them, the more valuable you're going to be in all aspects of your job. These tools, paired with your brain, can enhance your creativity, definitely accelerate your speed of production, and in many cases, it can help you to develop the code that you might need to put out a website or back end… It can help you to structure and format new ideas that can even, some people have already used, it can help you to write a book or content or anything else along those lines. And I think, you've seen some of those videos, it can help you to do multimodal things like create videos or visual content, sort through data. And I think, in the near term, again, if you really start practicing with these, the capability for them to also sift through hard numbers is coming soon. So that means if you are working with an organization, let's say you're on the marketing team and you have a lot of raw data but nobody has really had the time or wherewithal to sort through that data, clean it and then perform analytics on it, at some point, not too far from now, I'm expecting that the tools that I'm mentioning are going to enable normal folks like you and me to be able to query that data with natural language questions and get meaningful insights back. Obviously, with kind of a threshold of this looks like a 70% statistically significant thing, because the data isn't cleanly matched, but it'll point you to where in the data it came up with that connection, and then you can investigate it further. So again, nobody's going to be left behind, these tools are accessible to everybody. And it's democratizing the ability to use emerging technology. So, I say, just keep curious. And that's probably the best piece of advice that I could give.

Stacie Berdan:
Hm, that's it, keep curious and keep learning, as you mentioned several times. That's great. I'd like to pivot a little bit to your international experience, because this is about global careers. And I believe that everything you've talked about truly applies to jobs anywhere in the world, right? You're not talking about one specific area. Although, yes, you work with the federal government… But this approach in your thinking applies everywhere… But you spent a few years in Taiwan after you finished your undergraduate degree. Can you tell us about it and how it has had an impact on your career?

Tim Gilday:
Yeah, I'm thankful I did. That was a decision that, when you graduate college, if you go straight into a career, sometimes you get so many roots grown, that it's hard to take significant time off and go outside the US. So, luckily I had that gap of time and went out. And it really opened my eyes, along with my palate, right. Like the foods that I eat were expanded greatly for having been exposed to the food of Taiwan and China in general. But one of the things that it does is helps you to see two different things. One is that around the world, people are pretty much the same. We all have the same basic needs, even though psychologically, you might say, well, these people act very differently. That's tradition that has steered the way that people act. But we're all born the same. We all have the same needs to eat, survive, have shelter, have love, friends, have fun. So that is a great equalizer. And I think, and I hope that, over time, that's going to help us to shed the concept of borders and needing to have tribalism. It's a long, long way away potentially, but that's one of the most important parts. The other is, it helps you to see the world in a different way. Sometimes when you're in one society, you only get news and information from the media of that society. And of course, this was more than 20 years ago, so we didn't have such a flourishing, vibrant internet at that time. But nowadays, you do have access to many more choices for where you're getting information. But it really does help to be outside the United States and see how other countries and cultures view the United States. You know, it can be candid, and it can be eye opening. And it can help us to realize that, while we may have a great country, great culture, we still have gaps, and there's plenty of room for us to keep getting better. And one of the things we want to do is ally with partners around the world to help them get better, help us get better, and create those continuing bonds. I'm a big proponent for scientific collaboration as the universal language, regardless of what country you're in. Everybody has the same interest, and they speak the same technical and scientific language.

So, the more bonds we can make there, along obviously, with trade and economic intertwining, the easier it's going to be for us as countries to get past that concept of borders.

Stacie Berdan:
What skills do you think are at the intersection of tech and international business today?

Tim Gilday:
From a consulting mindset, the skills that intersect with international and technology... it would be the ability to adapt and the ability to learn. In, you know, let's say 20 or 30 years ago, the pace of technological change was a little bit slower, so you had time to kind of become an expert in one technology area and leverage that. You can see the ability to leverage labor arbitrage from different countries has been something for quite some time, right? Offshoring and nearshoring… You get the same talent globally, from a technology perspective, and you can use that anywhere. I see that increasing, but also, you don't necessarily have to be an expert in a single niche area anymore. If you have that consultant mindset and you're hungry to learn, or you're hungry to reinvent yourself and ensure that you're staying valuable in you are upskilling yourself from time to time, now more important than ever, of course, then you can be valuable within your own country or any other country. So, you know, from a personal growth and flourishing perspective, you can sell your capabilities to the highest bidder, you don't have to be locked to your own country in many cases. It's also a way for, again, for individuals and other countries to create communities that transcend borders. So, you may have a growing interest in cryptocurrency and blockchain… technology is something that brings together groups that you would never expect to originally be together, because they're behind… obviously, people want to make money… but a lot of people like the idea of a decentralized solution that doesn't have a single owner – that brought a lot of people together. And so, technology has that ability to form communities that, for all intents and purposes, don't have to recognize certain border type of issues.

Stacie Berdan:
That's wonderful. It sounds like tech and global is the future. Sign me up! So, you have an MBA in International Business from GW… um, what aspect of the experience do you think helped you the most, what do you wish you did more of less of? In other words, what advice do you have for MBA students today?

Tim Gilday:
Well, I do… I have kept abreast of George Washington's Business School and other schools as well. And I'm in awe of how much more technology is in the coursework than when I went through the program. So the students graduating today from GW, especially the School of Business are, you know, "Swiss Army knives" in a way… They have the business acumen, they're very well polished, but they also come with one or more technology areas that enable them to be accelerated in the jobs that they do. You know, so if anything, I would recommend double down on that, you know, don't need to change that into a Master of Information Systems or Computer Engineering degree by any means, but keep adding as much as possible that technology spin and, I would say, those general-purpose technologies, those fundamental principles in technology, to make sure that the business school students are armed with the well-paired capabilities from the tech side to add to their business side. The benefit that I got, and it almost sounds like a plug for GW, but it was true, they allow you to take courses in sister schools like the Elliott School of International Affairs, the Law school… and I wish I had taken more, because these were extremely valuable. It allows you to cross-domain yourself even more, and the talent level at those schools is through the roof as well. So, even after I graduated, I was able to stay in touch with and participate in activities with those other schools as well as the business school, and it's helped me continue growing and finding new information areas even after I graduated. So it's kind of the gift that keeps on giving.

Stacie Berdan:
That's wonderful. Well, thank you for also giving of your talents to GW, we really appreciate that. You are clearly a global thinker, Tim, but you know, not everyone understands that, I have a global mindset. What would you tell listeners who think globalization, internationalization… those aren't going to affect their careers?

Tim Gilday:
Well, it's hard to say the timeframe, but I would say it's an inevitability. The longer that we live, the longer we stay around globalism in… You know, it's sad to say that right now the world has a pendulum swing back towards authoritarianism and autocracy. But I don't think that that's a constant or an infinite trend. I think over time, especially as we get breakthroughs in energy, abundance through things like nuclear fusion, and as we start to be tied more closely in a meta level, not at a border level, as we start to be tied more closely in the meta world, we're gonna see that we form bonds and unions and alliances that, again, cross borders. So, from that perspective, try to remember that it doesn't matter, you know, by good fortune, if you're, if you have a newborn baby born on the east coast of the US… we're in a very fortunate situation…. but it doesn't mean that we are at all different from any other humans when we're born, right. We're born all the same for the most part. It's a bell curve of our intelligence and our physical capabilities, with occasional outliers. But for the most part, we're all the same. If you start with that premise, and you know that being born in a different culture or a different place, that's what shapes who you end up becoming to a large degree, then at least we can form that understanding. And we can understand the root cause of why somebody or some group does what they do. And if you can back that out, at least if that activity is offensive to you or hurts you, you can understand and maybe forgive. And if you can get to that point, you know that's where we start to try to extend olive branches. And we try to lead with diplomacy, as opposed to just forming more walls and more barriers and trying to leverage war as a means of communication, as opposed to diplomacy, trade and scientific collaboration as a means of communication. So, I would prefer the latter. And I think, you know, I'm hopeful, and I really do feel it's an inevitability that we will end up heading towards the latter.

Stacie Berdan:
I hope you're right, I hope you're right. I'm a big believer in that as well. Um, you're so thoughtful Tim. Clearly, it's what you do every day seems, not only for your job but in life… Is there a piece of advice that you'd like to go back and give your younger self?

Tim Gilday:
There's a lot of advice I should give my younger self. I do wish… now, times have changed and technology is different, but I wish that I had done more computer science in the early days, in undergrad. I had enough from a logical perspective to help me create that foundation, but the ability to build for yourself is so satisfying. It took me like 40 hours to do what some students can do in 5 or 10 hours. But when you get through that, and you've actually built something that works, with your own hands on the keyboard, as it were, the satisfaction is amazing. And it kind of can become infectious. And then you as a builder, you're creating things, you're starting to figure out how that can intertwine with other applications out there. It's a very satisfying thing, and it plugs you into the producer network, the innovator network. And it allows that kind of free creative side of your brain to start working more because you don't necessarily have to rely on third parties and then try to communicate a concept to them. You can get that out yourself just as you visualize it. So, my advice would have been to double down on that computer science side. And then also, like I mentioned before, the other piece of advice would be, don't get caught up trying to find a job and earn the highest salary you can right at the beginning. You need to find what brings you the most joy, you may reinvent yourself a few times. And don't be afraid to reinvent yourself, we have plenty of time, right? Even if you're 80 years old, you've seen people go back and get PhDs and then start doing something completely different. So, life is longer than you think. And with advances in technology, science and medicine, it will continue to be longer with a healthier span of time during those years. So, you're gonna have a lot of time to explore the world and explore what you want. So take your time and find out what gives you joy.

Stacie Berdan:
That's a wonderful, wonderful advice. Well, I could continue to talk with you, Tim, but I know we've got to start wrapping up. So, I want to ask you just one last question – if there's anything else you want to add for our listeners, maybe a topic we didn't touch.

Tim Gilday:
In today's world, it's easier and easier to get caught up online, but the connections that we have in person, the connections that we have with individuals – especially those quality connections – I would say, try to take the time, even if you are introverted, even if you are shy, try to create relationships, try to create friendships, and cultivate those close to you. Because you can really rely on those individuals for a variety of things. One is, it's satisfying and fulfilling to have that kind of friendship, but also, you need people that can be candid with you and can help you to grow. So surround yourself with those kind of friends and relationships and people that want to make themselves better and help you to become better – and you kind of create a virtuous cycle. So, it's hard sometimes but take that first step and build those relationships. This obviously goes beyond technology, but I think it's something that, no matter how amazing you are from a technology perspective, depending on what you want in life, that can be a lonely silo. So, get out there and form those relationships.

Stacie Berdan:
That's wonderful advice, thank you. Thank you so much for that, Tim, and for this entire conversation. I've learned a lot, it has made me the more curious, and I'm sure that our listeners as well will enjoy this. So thank you very much for taking the time.

Tim Gilday:
Thank you again for having me, Stacie.

[Music]

Stacie Berdan:
You have been listening to the GW-CIBER Global Careers podcast. Join us again next time, and in the meantime – go global!