



## Dr. Pippa Malmgren: Embracing Entrepreneurship

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**Erik:** Joining me now is [Dr. Pippa Malmgren](#).

Pippa, everybody on this program knows you for your past appearances as a geopolitical consultant and analyst and advisor to two US presidents, not to mention a consultant to the government of the United Kingdom – a very geopolitical and government background.

It's so out of character, it would seem, as a former tech entrepreneur myself, the last person that tech entrepreneurs think of as rolling up their sleeves and building something are geopolitical analysts that are engaged in government.

But you are also the founder of a robotics drone company, [H Robotics](#).

So give us the personal story here. How did you get from advising US presidents to rolling up your sleeves and starting a company to build drones?

**Pippa:** Well, here's the thing. I was in the markets advising big institutional investors for many years, first at Bankers Trust and then UBS and then on my own. And what I found is I could be right. I could make really big calls. Like, I sold everything before the financial crisis, I told all my clients to sell everything, asked critical questions about the stability of the firms they worked for, and I was right.

But I couldn't really make any money out of it because I didn't have a balance sheet.

So over the years I've been very aware that I needed to get involved in the real economy in some way if I wanted to participate in the performance. And about six or seven years ago, I started to have the view that the financial market was going to start to shrink because the regulators were going to make it shrink, circumstances would make it shrink, poor performance of assets would probably make it shrink, and therefore you might make more money running a real business than running a hedge fund – which has turned out to be exactly right.

So I was looking for an opportunity. I also thought that automation, robotics, was definitely where the future was going. So I started to talk to all my clients about it the same way I talked to them about the financial crisis coming.

And, in the same way, most people said, you're out of your mind. The real economy is never going to pay better than the financial markets. And a few said, actually, I agree.

And one of them is my business partner, my co-founder of H Robotics, [Wayne Harburn](#). Wayne had been running the oil trading businesses for AIG, ABN Amro, BNP Paribas, and he'd run a big family office out of the Middle East. He was a hugely successful investment banker, independently wealthy. When he left all that he was bored and he decided to go get a helicopter license. So he learned how to fly a chopper.

In the course of doing that he realized that now the technology would permit the building of something much smaller that could carry out the same tasks as a chopper. And it would be a drone.

Now, interestingly, we started to talk about this. We started to look at who was building them and what was the landscape. And we noticed that it was mainly Chinese. Because I come from a geopolitics background, we started to think about what are the implications of owning the aerial view of the world?

Remember, at that time, still, satellite data wasn't so easily available to your average Joe. Big companies might be able to access it at a very high price, but to get a real aerial view of your assets, basically the Chinese had a lock on that market.

Our view was that they were building things that were, well, let's just say, very much, they were built to be toys. They are fundamentally toys. They weren't suitable for industrial applications and for mines in Africa. So we decided to build something that was robust with very deep data management. It's the only open platform in the world that you can attach pretty much anything you want to. And that's where the idea came from.

Because Wayne comes from an arbitrage background, he views this as an arbitrage deal more than a manufacturing operation, if you see what I mean.

And, because I come from the side of advising about trends in the future, I'm like, you know what? Instead of just talking about the world economy of tomorrow, which I'm always enthusiastic about, why don't I be part of building it?

That was how we started.

**Erik:** Well, my hat is off to you. And it's no surprise, coming from you, to see you branching out and doing all these things.

But I want to go back for a minute to DJI, which is the leading manufacturer of drones. As you say, many of them are toys. But, boy, they've got an awfully strong market. They've got the advantage of being Chinese and therefore cheap.

They've also done a lot of work to build some really cool stuff over the years. And it works pretty well. So it seems from a barrier-of-entry standpoint like it would be really hard to break

that market.

But, as you gave me a little bit of perspective on it off the air, you think about this like Facebook. If it's free, then you are the product.

What could be going on with DJI beyond the obvious, selling really cool toys that fly around and take pictures of girls through their bedroom windows at night, which is what people seem to use these things for?

**Pippa:** First of all, let's quickly review the landscape of this market. We're at the bare beginning of this market. Goldman Sachs estimates it's a \$100 billion market by 2020. That's just around the corner.

It's a stage of the market where it's as if people say, I like cars. They don't distinguish in any way between a go-cart, a Ford, a Fiat, and a Ferrari. It's just they're all cars. And it's beginning to differentiate.

So, yes, the Chinese and others have come into the market strongly in the go-cart end of the spectrum, in the toy end of the spectrum. But what we make is a Land Rover. They're profoundly different.

I think the drone market is going to be differentiating very dramatically over the next decade. And we'll see probably as many different kinds of drones as we see cars.

In our case, we're hoping that the fact that we've got an open platform that's agnostic, so you can attach – within size and weight constraints that are not very rigorous – you can attach pretty much any new innovation the market comes up with. So any new camera, any new device, any new sensor. And the range of sensors being developed is truly mind-blowing.

But everybody else – not just the Chinese but everybody else, the drone industry – first of all, they insist on putting all the devices inside, which means you have no choices. You can't swap it out and put something else in. Number one.

Number two, there are two philosophies that dominate this industry. One is Chinese. One is American.

The Chinese philosophy is, basically, build-to-break, which is consistent with the history in China. They like to make stuff that breaks so that you go buy another one once you've broken it. Like, right now, most people who are buying the toys are like, hey, I'm on my fifth toy, and I just keep breaking it, I don't really want to buy another one. Which is why we see the sales flattening on the retail consumer front.

So, naturally, those companies try to soup these things up to make them "industrial." But the fact is they were never designed for industrial use and they're incredibly vulnerable to simple

things like weather. So most of them – whether they're made by the Chinese or anybody else – most of them, anything over 10 knots of wind and you'll never see this thing again. If it rains, forget it. They are not waterproof. Whereas ours are stable up to more than 25 knots, they're totally waterproof, they land and take off from water, they're meant to be flown in very difficult, challenging conditions.

So that's one thing.

The second is the American philosophy, which is very interesting, which is the only person who can fly a drone has to be a highly qualified person, usually a highly decorated ex-military pilot. We decided, look, if you are Shell Corporation, are you really going to say to those guys, you can handle billions of dollars' worth of equipment, your engineers are the world's best, but you're not good enough to handle this drone? That's crazy.

So we built a drone system that is incredibly easy for companies to deploy themselves. Which means we're going to bust the business model which is currently the dominant business model that companies use, which is they hire external people to come do a job.

That's crazy because, first of all, that means you don't get any consistency of the data.

Second, it means you have outsiders on your property who don't understand what your business is.

Third, they own your data. And you have to pay them not only for the day, which is running right now in the US and the UK at about \$4,000–\$5,000 a day for a guy to come with a toy who flies it manually. So you have no comparable data. And then they charge you for the data, and some of the prices are just egregious, to say the least.

It ends up at minimum that you're paying a million bucks a year, annualized, for this external person, versus you can buy a tool of your own that your own team can deploy that will cost you something like £25,000 for a year. It's a no-brainer who you're going to go with.

So these are big differences.

But there is a final issue which we think is probably the most serious issue, and that is the security of the data. Almost every drone – in fact, we cannot find any other drone in the world that separates physically the management of the autopilot (which is what makes the thing fly) and the actual data coming off that machine. We physically separate them.

I guess everybody else puts them together on one sort of motherboard because they think it's "efficient." But it's actually not.

By separating them, we ensure that there is no possibility that your camera and sensor data is ever going to get comingled with the autopilot. Because the autopilot occasionally gets updates.

And whenever you do an update, there's also a download.

Many drones, you have to plug them into your computer – especially all the toys – you have to plug them into your computer every two or three weeks. And every time you do that, yes, you get an update, but you also do a download.

That's the allegation that the US military has made, is that drones – especially the ones made in China – are taking all your data so now your data is not secure. Naturally, if you're running a company, this is of crucial importance. So, to have them physically separated so there is no possibility of that inadvertent leak, or deliberate leak, is a very big deal to companies.

I'll just finish by saying this: We work a lot, for example, with mining companies in Africa. These are the worst physical conditions you can imagine. And I can walk you through what we do for them because it's just fascinating. It involves great stories about crocodiles.

But, before I get to that, here is the bottom line: If you have an aerial view of a mine in Africa, you know the value of it. If you're bidding for those assets, is it a surprise that those who have that aerial view outbid everybody else by \$1?

How do they know what it's worth?

Answer: Because you let them fly over your property and you sent all that data.

So I'm just saying, with our company, we decided that the security of the data was absolutely paramount. And the depth of the data and the ability to deploy any new innovation the market comes up with, that these would all be massive advantages that would mean you wouldn't even compare the go-cart with the Land Rover. It's not even a question of should I buy one from this company or from that company?

There's a huge market for go-carts and Fords and Ferraris, but there's not the same market for Land Rovers. And that's what we do.

**Erik:** So let me just make sure I understand the data privacy issue. What you're saying is that, because of the way the DJI architecture works, which is the firmware gets updated – the firmware is the software that runs inside of the device itself – it gets updated over the internet all the time.

So, at any time, the Chinese government could send an update that says, hey, send all the pictures back to us. And they start getting all of that data.

So, just as it's been alleged that the NSA is spying on everyone through their cellphones, you're saying that the Chinese government is literally selling these toys all over the world. They're taking pictures and gathering what is probably much more accurate than satellite data in a lot of cases.

So if you go back to the cold war era of everybody is spying on each other with satellites, we're getting a much closer view. And you're saying there is a very real risk that at any time the Chinese government can say, hey, send us all that data. And it gets sent back to them.

Is that accurate?

**Pippa:** Well, I don't want to pick out any particular country or company.

What I will say is this: As people get more sophisticated about understanding what the data leakage risks are, they're going to be inclined to go with a platform that diminishes that risk to zero because it can't comingle these data points.

I will say this: The allegation that has been made by the Pentagon is having a real impact because companies, the first thing they say is, are your drones made in Asia?

And the answer is no. We make them in the United Kingdom. And we make them ourselves. So we're not outsourcing. All the code is ours. We have completely built the entire system ourselves. In fact, we'll be making an announcement soon that we've gone a level further than that.

And I just think that there is a market for that. There is a market. And, definitely, every big corporation we're talking to, the first question they have is about this.

It's an interesting point, because how is it that some companies have become so large so fast? And are they state-backed companies? Are they truly independent companies? Again, we get approached by investors and they say, well, some of the drone companies out there aren't really investable because they're perceived to be state-backed.

So we just like to think, look, it's a huge market and we're providing certain qualities that that market demands where others are not. That makes us different. It's a big space for a lot of players. We just fulfil particular needs that I think are going to be more important over time.

**Erik:** Now, as a geopolitical person you must have thought about this. It seems to me that drones are so cool and the toys are so pervasive these days – every kid's got one. These things are scary, you know. The DJI drones can travel as much as four or five miles from their operator and spy on things and take pictures and 4K videos and everything else.

As we get to bigger drones that have the ability to attach payloads, which you're certainly delivering with what you're doing in the commercial space. Amazon is putting a lot of work into delivery technologies of carrying external payloads. At some point it seems to me like, boy, this is technology that gets scary in the hands of terrorists. If you can deliver bombs and sticks of dynamite and so forth using a drone, it's a very, very low entry cost.

So is there an angle to provide some sort of technological resilience to misuse of your product?

**Pippa:** Definitely. This is, again, exactly why we decided to enter this space. Because we think that the retail consumer use of drones is going to be ever more regulated for a lot of reasons. Not only because of the terrorism risk, which I'm personally very sensitive to because I was in the White House on 9/11 and I was in charge of terrorism risks to the economy after 9/11 for the president on the National Economic Council. So nobody gets this better than I do.

But there are other risks as well. If you get a 16-year-old kid who flies it at 1,500 feet because it's cool and it's fun but you're now in the incoming lanes of Heathrow Airport. And we've seen several incidents. So, I think, more and more the regulators are going to say enough of this risk.

Also, by the way, they just fall out of the sky. That's what happened to GoPro.

GoPro had this great idea: Let's take our wonderful cameras and get them in the air. And drones, that's simple, that's easy. We'll just outsource that to China. And they came up with the GoPro Karma and, if you recall, they all literally fell out of the sky. They did a 100% recall in a few weeks. And now they've announced they've gone out of that business completely.

It's very hard, actually, to create stability in the air. So all the regulators are very worried about drones for a lot of reasons.

So we decided to build a drone that was only for companies. And can only be flown by someone designated by the company. I know this sounds like a technical detail, but it's actually quite important – we've created a system where there is a fleet manager inside the company, the client. They designate every pilot within the firm, every flight that's taken, every access point to the data.

So, literally, you can steal it but you can't get into the system to turn it on. Even if you have permission to fly it, you can't hotdog with it without the boss knowing.

If you take it off the property – and, remember, most of the corporate clients, they own the properties they're operating on – you own the agro-business, you own the mining site, you own the oil and gas platform offshore. So this is not being flown in general places. It's in a very specific location.

So we geofence them. If it's taken off your property, you're going to get a text message saying your device is leaving your property. Do you want a kill code? Which means it will never fly again. In other words, it can't be stolen by terrorists and used for nefarious purposes. And that's exactly to your point. We think this is a big issue.

And people ask us, are your drones weaponized? And the answer is, well, call it H Robotics because we're making helpful robotics. So, no.

But let's put it this way: It can go 100 miles an hour. You can hold it in one hand. It weighs less than 7 kg. It has 16–17 inch carbon fiber props that are rotating at 7,000 rpm. It is a weapon. And so it is for toys as well.

People don't realize. And this is why we see terrible accidents, especially at Christmas time, where children get injured by drones because parents give a little kid this thing. But the fact is, they are dangerous.

So we built the company on the assumption that the regulators are going to want something that is tracked and logged 24/7, that has all these controls on its use. It can be set with height and distance limiters so that it cannot be flown beyond the legal limit. It's mainly going to be contained on company properties, and it's always going to be used by authorized personnel.

At the other end of the spectrum, I think they're going to face a lot of difficulty as the regulators demand more and more of them.

**Erik:** Let's shift gears. I want to move to your personal experience, Pippa. You've gone from just radically different extremes of being in a career where, basically, you talk all day. You've got so much smarts in your head that you're able to get the attention of US presidents. Congratulations on that. But you're not doing anything. You're talking about very, very important subjects with very important people.

You've gone from that – and you still do some of that in your life – to rolling up your sleeves, starting a company from scratch, having an idea, and saying let's make this work.

What have been the differences? Which is more rewarding? Which do you enjoy more? What are the surprises that you didn't expect in this transition?

**Pippa:** It's such an interesting question. And, remember, I've had a consulting practice for many years and that is a business. And a public speaking business. So I have been an entrepreneur. It's just not perceived that way.

But, really, the big thing happened to me when I was in the White House working for President Bush and we went to do the tax cut, actually. I remember the fundamental point that that hung on was, do you believe that entrepreneurs are smart enough, switched-on enough, that they will understand that we're giving them the opportunity to go build? Instead of having their money go to the government and the government allocates it into the economy, that they get to decide what they're going to allocate it to – plus their time and their energy.

And this is still a huge philosophical issue of debate, with many people believing that tax cuts are stupid and government ought to be in charge of allocating the wealth in the economy, and other people who take the opposite view.

So I remember I was up in Cape Cod on my only vacation that I took while I was in the White

House – it was a long weekend – sitting in a lobster shack. Like, a really local lobster shack. And the guys at the next table, I overheard their conversation. They were all fishermen. Cape Cod fishermen are tough people. Remember the film made about it with George Clooney, where they all went out and a bunch of them got killed because they'll take on any storm.

I listened to them, and they were talking about our tax proposal in as much detail, with as much nuance as any discussion I'd been in in the White House in the previous few weeks. And I'm like, these people know exactly what it is on offer.

I was so impressed. I felt like, I want to be part of that crowd. I want to be like those fishermen in Cape Cod who are taking really big personal risks – with their lives as well – in order to make a living. So I've always had it in my mind that I wanted to be part of it.

The other thing is, you know that I have this tendency to big views, like inflation is going to come back, China is going to have a big slowdown, Trump is going to get elected, Brexit is going to happen. These are big long-term views.

Well, one of them was, about 10 years ago, right after the financial crisis, I thought what we're going to see is the real economy roar back to life, because the regulators have thrown a record sum of money at the real economy.

And if I really believe that, if I'm going to go around telling people that the recovery is coming, I should put my money where my mouth is. I should be in this thing. I should find a way to be part of building this thing.

And, again, that's when this conversation with one particular client started to turn into a kind of sketching the back of the envelope, and then playing around and wiring some things together, and then really thinking through.

And I'll give you one last piece of the story. About seven years ago, Wayne, my business partner, and I noticed that the Chinese introduced an autopilot into the market and they basically dropped the price of the autopilot by 40-fold in a single year.

Now, I can understand why you might cut the price of an autopilot – this is the thing that makes the drone fly – you might cut the price of an autopilot in half to get market share. You might drop it by 60%. But to drop it 40-fold in a single year?

It completely wiped the business models of every single drone manufacturer at the time. And it opened the door for us, because now we could, at that time, buy an autopilot for practically nothing.

That was when I started to think, hmm, what is the purpose of that? Is it really about market share? Or is it about flooding the market with instruments that are capable of gathering data?

And, again, who knows what's the security around that data? I don't know. But what I do know is that this changed this market and it opened the door for me to get in there and provide a tool that provides security over that data.

So, again, could I have done it if I hadn't been in geopolitics? I would have never seen that. Because I came from that background, I understood this. So, sometime in life it's this multiplicity of perspectives on things that make the difference.

The last thing I'll say is I come from a family of immigrants. My grandmother was 16 when she came from Sweden to the United States in 1930. And, at that time, there were no jobs. It was the beginning of the Great Depression – actually, I think she might have arrived in 1932 – so just things are really getting bad. She didn't speak any English.

And she got someone to read a sign in a window that basically said Seamstress Work. She went in and said, I can do that. She had never even seen a sewing machine at that point. But she's like, I can do that.

And she ended up as the personal seamstress for Mrs. William Randolph Hearst. In other words, she made it from not speaking English and never having seen a sewing machine to being the top haute couture seamstress for the wealthiest woman in America.

So I'm like, you know what? You can build anything. You can be anything. And if I really believe that, and I want to encourage people to participate in the new robotic-led economy, what better way than to do it myself?

And, to finish, what I've built empowers people who don't know anything about robotics. One of the most exciting things that's happened to me with this company was when we took it to deal with clients in Africa. The people flying the drones are not professional pilots. They're just employees of the mining company. And some of them are women.

So now I have these African women who have no background in robotics, automation, code, anything – and it empowered them with a tool that they can fly. It's a great example of what I mean, that we don't need to be afraid about robotics stealing our jobs. They're actually going to augment us.

That's a key theme I talk about as an economist. It's a key point I make as a policy advisor. So now I'm just putting my money where my mouth is as a manufacturer.

**Erik:** In addition to putting your money where your mouth is as a manufacturer, you're also putting your mouth where a lot of people like seeing it, which is writing another book. This one is entitled [\*The Leadership Lab: Understanding Leadership in the 21st Century\*](#), published in October 2018.

If I take that title, Pippa, it sounds like it could be just another mundane management book. But

I know you better than that. So I'm guessing it probably has to do with why the future of civilization hangs in the balance depending on whether or not leaders can get their head around new paradigms that they don't understand yet.

And I bet you explain it in the book. Am I on the right track?

**Pippa:** You got it in one. That's it. Exactly.

So, here's the thing. I realized how is it that all of our leaders keep being totally blindsided. Blindsided by populism. Blindsided by Trump. Blindsided by Brexit. Blindsided by technology.

How is it that we live in a world where the guys at Volkswagen felt they could falsify the data and no one would notice? How can we be in a world where leaders of every kind – religious leaders, political leaders, community leaders – they all keep making decisions that reveal they don't get it? They just don't get it.

I co-authored this book with a friend of mine, [Chris Lewis](#).

Now, Chris is a Brit who founded the second largest privately owned PR agency in the world, [Lewis Media](#). And he authored a book called [Too Fast To Think](#), which basically says we're never slowing down enough to think properly about what's going on. Which was kind of the predicate of this book.

And I had written [Signals](#), which was all about how to see the signals coming so you don't get blindsided by all these economic events.

We decided to bring together a whole bunch of leaders from every area – from politics, from business, from religious, from community – and put them in a room and talk to them about leadership in the 21st century. What we found was that most of them were stuck in a mindset that we thought was very 20th century. They were not prepared for the 21st century.

I'll give you a few thoughts on what I mean by that. 20th century leadership was literally about the leader. We idealized and made into icons our leaders.

I think 21st leadership is much more about the ship. It's about the organization. It's about the people. It's about inclusivity. It's about crowdsourcing ideas within and without your organization. That's a totally different way of thinking.

Second, the book is about how we need much more diversity of thinking. Everybody is focused on diversity of people, and I applaud that. I want to see vastly more diversity of people, on every level. Not just gender, not just ethnicity, but also personal background, income levels, neuro-diversity – the way our brains are wired are different.

But none of that is as valuable if what you end up with is a whole bunch of people who still

think, who still say things like Brexit will never happen or Trump will never win. There's no diversity of thinking there.

So, the book suggests that we need to do a lot more with scenarios. And to stop trying to predict and get much more focused on preparing for possibilities that strike you as crazy.

Another core idea is drilling down into detail, which is the 20th century iconic skill that every business school taught: How to go deeper into the balance sheet, how to get a black box model that's going to give you the magic answer. Yeah, this did not work so well.

21st century leadership requires looking across the landscape, connecting the dots between the silos and thinking parenthetically across. Now, the quantitative has to be met by lateral qualitative thinking, which is something that people are not as comfortable with. And I think they're going to have to get a lot more comfortable with that.

The main message of the book is just leaders have to understand how the landscape has changed and the skillsets required of them are very, very different. And the people and the environment are different.

So I have a lot in the book about technology, huge amount about how technology completely changed everything. Whatever leadership skills worked in the 20th century, they won't work in the 21st unless you really get on top of technology.

I get a lot of leaders who are their 50s, 60s – to be perfectly frank, there are a lot of middle-aged guys and they go, I'm not really very tech-savvy. And you're like, sweetie, if you don't do tech, tech is going to do you.

If you want to get in front of all this, this is the book for you.

**Erik:** Pippa, this book has already gotten a huge amount of attention. Greg Williamson – just a god in the pension world – has described it as *The Art of War* of the 21st century. Ken Todorov, who is the former deputy head of the US missile command, has said this book is required reading for everyone on his team at Northrop Grumman. You're getting a lot of attention.

I want to give our listeners a sense of a couple of the major themes.

One of them is technology. You've got to get it. And this is something that has really just blown my mind. I've done a lot of research recently on where I think digital currency is headed, with government-issued digital currencies.

And it is shocking. If you look at what the cryptocurrency crowd has done, the ignorance of government. It's not that they don't believe in it or they don't like it, it's that they have no clue what it is. They don't get it. And the inability of senior leaders in government to understand

technology is something that I've always thought would eventually catch up with them and bite them.

It sounds like your saying that really the day has come. If you don't get technology, you're going to be in real trouble.

So how is this going to play out? Because you and I both know that senior government officials don't get technology. They're lost.

**Pippa:** It's not only government officials. I'm finding that it's also people in the business community, especially in big corporations. They keep being surprised that little tiny companies with two, or three, or five people are suddenly able to burst onto the market and take all their market share.

And it's because they really don't understand the radical revolution that is being brought about by artificial intelligence, by computational power.

You know, these big guys, they think that size saves them. And they're wrong. They're completely wrong. Little companies are springing up out of nowhere that are radically transforming the landscape from Uber at one of the spectrum, Facebook, SenseTime in China – which will touch every company in the world, what SenseTime does with their facial recognition.

So part of the problem is this thing we talk about in the book which is quantum superpositions. Now that sounds like a heady concept. What it means is you can have two extremes that are true simultaneously.

Now, for example, we have unbelievable amounts of information. So everyone, by all rights, should be able to understand what's going on with technology. But, at the same time, everyone is inundated. They're so inundated they shut down. They stop reading.

I hear about even chief technology officers at big companies saying we have a blanket ban on any new technology until we figure out what we already have. And you're like, that's not going to help you. The overload of information for leaders is – and this inundation – is blocking them from being able to understand what they need to understand about technology.

In the book I go to great lengths to describe the new technology innovation environment so they can begin to see that some teenager is going to eat their market share within a couple of years. And this should not come as a surprise to them. But it does.

I'll give you another example of what I mean by a quantum superposition that we talk about in the book. Big companies are very much under siege about their taxes. Amazon is under siege by the regulators in Europe. Everywhere in the world people are going, okay, big companies like that are paying almost nothing, often, in taxes.

Now, legally, they are totally in compliance with the law. They are absolutely totally square. It's not that they're doing something they shouldn't be doing.

But, at the same time, the perception is that this is just wrong. You shouldn't be able to do that much business and not have to pay something in tax. And, therefore, there is nothing for that society to work with to pay for whatever the societal needs are.

So you can be both right and wrong simultaneously.

You may not know the story of this guy Sir Bradley Wiggins in the United Kingdom. He won the big cycling championship, the Tour de France [2012]. And he doped with a substance that was not on the avoid list. In other words, he definitely and deliberately doped himself to win the race, but he used something that technically wasn't on the list. It was an antihistamine or something.

Well, how does the world feel about Bradley Wiggins now? On the one hand, he's totally discredited, for some people, because he doped. For others they're like, hey, he was absolutely compliant with the law.

This is the key point to how do leaders understand quantum superpositions and take the time to get deeper into technology. They say to me, look, I don't do technology. And I'm like, you know, honey, if you don't do technology it's going to do you.

**Erik:** There is another theme that you focus on in the book that really resonates for me as a pilot and flight instructor, which is the theme of situational awareness. It's something we teach in flying.

It's not good enough, especially flying on instrument, to just know what the altimeter says and what your heading is and so forth. You've got to have a picture in your head of what's going on outside of the airplane, where you are in reference to the airport, to the obstructions, to the clouds, to the weather, to everything else.

And you've got to have that picture in your head all the time or you're screwed. How does that translate to a book about leadership in the 21st century?

**Pippa:** Well, this is so interesting that you're a pilot and you get this. This is a military concept as well. People in the military are trained to have a high level of situational awareness. Which is so nobody sneaks up on you, basically.

In business, what happens to a lot of leaders is the higher they go, the less time they have to just talk to people. So they tend to start talking to all their old mates who they've known a long time and they have a high level of trust with. Or they talk to other leaders. They all go to Davos together and they all chat there.

So they say, I know what's going on because I've talked to everybody. Now, doesn't this ring a bell? That this is exactly how they missed the financial crisis. It's how they missed the election of Trump. They're like, oh my goodness, I'm completely surprised. No one I know was voting for Trump. No one I know was supporting Brexit.

Yeah, because your situational awareness has collapsed into a very small group of people and only looking at certain, as you say, altimeters, certain instruments. You're not actually looking around to find out what's really going on.

A lot of leaders will say, well, I've just been to China and I know exactly what's happening. But they don't, because going is not knowing. They went and they talked to, let's say, Xi Jinping's team. Of course they have a particular view, and it's unlikely to be a negative one.

Same as if you say, I've been to Washington and I've talked to everybody in Washington, and this is what's going to happen. You're like, well, sweetie, Washington is not where all the action is in the US economy.

If you want to understand what's really going on, you've got to spread out to deeper, broader sources of information. That is what gives you situational awareness.

I was on a stage recently at the Google Zeitgeist Conference. They hold two events every year, one in the States, in California, and one in London. This was the London event. I was onstage with Jennifer Palmieri, who is absolutely fantastic.

She was Hilary Clinton's advisor on the campaign. She served President Obama as Special Assistant to the Chief of Staff. She was the Head of Communications for the White House.

So this is a bright switched-on person. One may or may not agree with her politics, but she is a first-class policy person. And we had a conversation about how did you miss what happened, this sea change in American politics?

And she was like, we just didn't see it. We didn't feel it. And how is it possible? The answer is because if you're in your own little world you don't have situational awareness.

That's why the book spends a lot of time helping leaders today – but much more specifically tomorrow's leaders – really get a grip on how to have situational awareness. How to think about scenarios that you think might be crazy but actually might happen. And to have a more open-minded approach so that you basically save yourself from accidents that are unnecessary.

Just like flying.

**Erik:** Pippa, before we close, there is one more point I want to hit which is so interesting because it is so out of consensus. You have got a radical view about inflation. Tell us what's on

your mind.

**Pippa:** Well, in the book I have a whole section that argues against the current commonly accepted wisdom that the internet is deflationary. I give a view that maybe the internet is inflationary. Now that will twist a lot of people's brains around. But it's a good example of what I'm doing in the book – how to get you to think differently.

**Erik:** Pippa, I can't think you enough for a fantastic interview. Listeners, the book was released on October 4 in the UK and October 20 in the United States.

Patrick Ceresna and I will be back as MacroVoices continues right here at [macrovoices.com](http://macrovoices.com).