

Michael: Okay, good. The light above behind you sort of acts as a halo so it's wonderful for that saintly effect.

Paul: Is that a good or a bad thing?

Michael: No, that's fine. Describe for me, tell me back on the wall behind you it looks almost like brick.

Paul: It is. I'll just quickly show you the room. This is a little feature we did in the house. We found lovely old bricks so we did around various parts of the house a lot of exposed brick.

Michael: I love it.

Paul: It's quite fun. We built this house and moved in just before Christmas.

Michael: Oh, so you've just been in this? You say you had the house built or you built it yourself?

Paul: We had the house built. We weren't involved with the physical side of it very much but we were kind of here everyday and doing things. We just bought a 50-acre farm and had the house built and just moved in, so very kind of still new and not quite finished, but lovely, lovely process to do.

Michael: Where is that? Where do you live?

Paul: We're an hour south of Hobart in Tasmania, so if you look at Tasmania sort of like a triangle we're at the bottom right-hand corner of that, so basically about as far south as you can get in Australia. Below this is sort of Antarctica.

Michael: You say it's a 50-acre farm?

Paul: Yes, a 50-acre farm. We're on a farm about 15 minutes away, just the last three or four years. We were doing blueberries. This will be more of a diverse. It's not a farm in a commercial sense of a farm, but it's enough to hopefully end up feeding us and a few neighbors and that scale.

Michael: That's fabulous. That's a perfect size, that's a perfect scale. Wow, cool.

Paul: Thank you.

Michael: That's great.

Paul: It's good.

Michael: Well, I've been having a lot of fun in this series. I've interviewed about I think a third. I'll be totally interviewing about 30 and I think I've done about 10 or 11 at this point. I'm humbled and stunned by the quality of the people involved in helping to create a better world, helping us think about these big ideas in ways that don't paralyze us. This is one of the places I've found your work so invaluable.

At any rate, I just welcome you to this series. One of the things I'd like to do at the start, Paul, is just invite you. Some people may not be familiar with your work and your background. Don't be bashful. Help us know who Paul Gilding is and what you bring to the world.

Paul: Okay, yes, I'd love it. I've been involved in this issue kind of all my life. Since I was a teenager I was involved as an activist in a variety of different issues. Initially more of a social purpose, so human rights, anti-Apartheid in work over in South Africa, aboriginal land rights in Australia, a variety of oppressed people's struggles, if you like, around the world in the '70s.

My background before that, as a child I grew up. I wasn't kind of really aware of this until later on but my parents had quite a strong social justice binge in their lives. My father worked for the Methodist church as an administrator. My grandfather was a Methodist minister in Adelaide. Without sort of being aware of it I was surrounded by these people who just thought about the world and making the world a better place naturally.

I didn't think about it because it was what I was born and raised in, as opposed to having an activist awakening. It was more like just that's what you did, is you try to make the world a better place as a natural part of your life.

Michael: Yes. I think that speaks highly to your parents or others that instilled that value as well.

Paul: Indeed, and especially given that I wasn't kind of aware of it, being a conscious thing I was being told. It was just a natural part of the process.

Michael: Yes, this is who we are, this is what we do.

Paul: Yes, exactly, which was great. Then I spent the next 20 years or so as an activist on a variety of environmental, social, peace, anti-nuclear weapons

type issues across many different organizations. Ended up being, I guess, quite good at that as I was invited to join Greenpeace in Australia, being named head of Greenpeace Australia.

After running some campaigns here and there, became head of Greenpeace International. I was the worldwide CEO based in Amsterdam. I moved there with my wife, Michelle, and two kids. I lived in Amsterdam for a while and that was really a very important part of my formation, if you'd like, and my thinking. That was really about having a worldview, thinking about the world as a whole system.

There aren't many organizations that really think about the world as a single, integrated system of humanity, ecological business, government and so on. How do you sort of change the system as a whole visually is really interesting. That was very important for me in my 30s, so quite very young, I realize now, at that stage.

I did that for a while and then left really fascinated by the idea of markets and social change and can you drive change from within business. Can you really engage the business community both as individuals and humans with an ethical kind of social, moral argument. Also can you engage business people in particular in that context without going against their need to create profit and growth for their shareholders. Can you align those two things? It is possible to do those sort of things together?

I really wanted to test that and so I spent the next 15 or 18 years or so full-time on that with my own businesses, running Australia Consulting Company, doing work for very large global companies including many in the US, DuPont, Ford Motor Company with Bill Ford and with Jacques Nasser when he was CEO there, SC Johnson. I mean, internationally with China Light and Power, BHP Billiton, DRG, lots of different companies facing social and environmental challenges.

To really push the boundaries, if you like, of the issues that I cared about within the business context and can you engage business people in that way.

Then a few years ago, about five years ago now, I left that business. I had two companies by then. One was doing energy efficiency in the home and one was doing strategy consulting. Left those businesses and became a full-time advocate, writer, speaker, hopefully motivator of people to act in the area, recognizing that my historical breadth of experience ranging at that time from activism to the military. I was in the Australian military for

a while as well in the Air Force here.

When working with the big end, the top end of town in the corporate sector and by then having spent also ten years as a Fellow at the University of Cambridge in the UK lecturing and speaking to business programs there I had this range of experiences that I thought would help me to communicate and engage people one-to-one and in groups and speaking and writing and so on to try and give that kind of global perspective of the issues. That's sort of my background and focus.

Now I do this. I talk to people. I engage leaders one-to-one and in groups to try and give this sort of coherent, system-wide understanding of what's going on, and also to motivate and inspire and give people a belief of impossibility.

There are so many people who are full of despair about those issues for reasons that are well grounded in the data, if you'd like, but which is actually quite destructive. I'm very focused on this issue and hope and believe in the possibility of humans to rise above the mess that we've created and build a very different world.

Michael: Yes, that's great. As I shared with you in an email, I think, the other day one of the things that I find, and I actually have mentioned this in a couple other of the interviews, I'm evangelistic about your book. I think it's just fabulous. I often tell people, in fact I think Tom Friedman at the *New York Times* said something similar, like if you only read one book on climate change make it Gilding's.

Part of that is because you are one of the few people, in my experience, who doesn't in any way shy away from the bad news. I mean, you take a square look at what does the data say, what's the science. Yet you have, as you said, this breadth and depth of experience and a way of holding it and seeing the bigger systemic. Of course, you've been in interaction with so many others who've also been focusing on that for many, many years.

I want to invite you to just sort of share from your heart or whatever you'd like to share with our audience. I'm now saying this not to you, Paul Gilding. I'm now saying this to anybody who's watching or listening to this, I really mean it, Paul Gilding's book *The Great Disruption* is a must-read.

Since here we are now, if you could sort of sum up obviously not the whole argument of the book but just how do you hold this terrifying

reality of our times in ways that keep you by and large inspired and inspiring others to be in action and to do what needs to be done?

Paul: I really draw, if you like, on my study of history and my work at Cambridge University is particularly important here because I get to speak to experts in virtually every field around those issues. Many of them don't come with expertise in my area, but I go and ask them, "Just accept, if you will, what I'm saying to be right. What do you know from your expertise that can help me to understand how this could unfold?"

I guess that really is beneficial to me because it gives me access to extraordinary levels of intellectual capacity, if you'd like, amongst experts in the field who are engaged and fascinated by this question but don't spend their days thinking about it as I do. In the book in a sense I get to synthesize that view.

What we learned from history is that even though these issues that we face today are on a different scale, by and large, because they are civilization-threatening on a global scale, not just at a community or ethnic group scale, they are actually well-informed by human nature and what we've done previously when we've faced various crises.

People tend to focus on the negative when they're in this area, for reasons I understand because I have been like that. You are trying to motivate and inspire action. Fear of what can go wrong and threatening people with damage to their children, to their communities, to their homes is a kind of in a way motivating for people to pay attention but it's not always motivating for them to act.

What happens, though, is because we are in a motivation to care phase of the issue for most people, then the fear is a very strong focus. What can go wrong is a very strong emphasis in the communication of it.

Now, I'm not saying that's wrong. What I'm saying is we shouldn't accept that for what it is. What history tells us is that you have to have a belief in possibility, you have to believe that victory is possible in the face of extraordinary odds. Even if it's not necessarily guaranteed or likely the fact that it's possible is absolutely essential, the psychology of this.

If you look at the history of World War II at a larger scale, if you like, but down to individual health crises, to companies falling apart and going broke, to communities facing their demise beaches of closure of a major factory or major industrial facility, that's when people come into their

own. That's when people do their best work is when they're really faced with that level of truth.

If you look at that at the small scale, community scale, company scale and global scale of World War II, what you see is that we have regularly faced apparently insurmountable odds, impossible things to achieve and achieve them. We've done that with, as Nelson Mandela, one of my favorite quotes from Nelson Mandela, "It always seems impossible until it's done." Then we kind of retrospectively say, "That wasn't so hard and, yes, it was hard work but we were always going to win. We were always going to succeed."

Of course, we weren't. It's because we believed in the scale of the threat and yet believed also in the possibility of success is why we had this incredible turnaround. For you as a citizen of the United States, just in context in World War II there was for a long time great resistance to joining the conflict against evil in World War II. There was incredible resistance at the government level, amongst the elites and amongst the population.

There was good reason for that, because war is a terrible thing that's expensive, that's damaging, it kills people and then sort of unleashes this bad side of humanity which we'd rather kind of not face up to sometimes but sometimes is necessary.

In that particular case the resistance was strong, as it is in this case. Their arguments were similar. We can't afford it, it's too expensive, the threat isn't that great, the consequences will be terrible, we'll sacrifice too much in doing it, etcetera, etcetera.

Then when it turned and it turned partly because of pressure from the bottom up against the leaders of the country saying, "We have to do this. We have to do this because it's the right thing to do," then the response was extraordinary.

In the UK and the US where the central turning points came, in both cases unbelievable amounts of money were found, debt was got into to finance this. The government redirected industry at a very large scale. In the US, just to put it in economic terms, in the US it went from 1.6% of GDP being spent on defense and security to 36% of GDP in five years while GDP was growing 75% in that time. Just a colossal mobilization of resources.

My friends at Ford were directed to stop producing cars for commercial reasons and start producing equipment for the war effort. Amazing turnaround, which people thought was incredibly difficult and challenging and all those things. Yet we managed to mobilize in a way which did defeat the conflict, the source of the conflict in that case, and recover democracy and freedom for those countries involved and for the world in the end.

If you look at that objectively, is my point, if you look at that objectively in World War II in the UK, for example, you would say, “No chance, these guys are gone.” I mean, this is all of Europe by that stage dominated by Germany, an all-powerful military force. Nothing had stopped it in its path. The UK was an under-resourced island without a friend in the world.

Any analysis of Churchill’s situation at the time would say he was a little bit crazy actually. He was a drunk, he was depressed and he was a little bit unhinged because only someone who is unhinged would possibly believe they had any chance of success in that conflict. It’s a very funny historical reality, that any objective analysis would say they were screwed, frankly. They had no chance of success. It was an impossible task and yet, of course, history says it was achieved.

Obviously with the US joining the war that turned that around, but even before that there was incredible resistance in the UK in the face of extraordinary threat.

The point of that is just to say it always seems impossible until it’s done. One of the key determining factors in the success in the UK, in particular, was this incredible determination that despite the severity of the threat, despite facing up to and being very clear about, as I am, this is a civilization-threatening, economy-threatening, personally-threatening disaster unfolding before us, if we get it wrong we will not recover from it for centuries, if not longer.

It is possible to imagine how we can succeed. That juxtaposition, if you like, of facing up to the threat but being prepared to acknowledge just how we could succeed, is crucially important to the psychology and to the belief and the hope and the spiritual basis on which we all act in this area.

Michael: Amen. One of the things that I’ve found and I’m sure you have is that, yes, there’s the tendency to focus on the bad news and the scary stuff and the terrifying stuff in trying to motivate people. Just a human psychological dynamic is that we tend to be at some level of denial if we can’t see some

possible way through or way out. That's just human nature to do that.

That's the paradox of how to really look at the potential for it to be truly unspeakably catastrophic. There's no guarantee that we won't go there or end up there. Yet to have a vision of possibility that is so alluring and also, as you say, an understanding of history. Both in terms of human history, sort of the short term, but also my focus, my specialty is the history of life. That's what I do. I'm a big history evangelist.

I sort of share the evolutionary history of everyone and everything in ways that help people see the patterns such as chaos and breakdown and destruction being the primary catalyst of creativity such as that we don't see often linear change. We see things getting really, really bad and then a radical change that happens fast that you couldn't have predicted.

Of that we find throughout evolutionary history, such as chaos and breakdowns being the main catalysts of creativity, such as that change doesn't often happen in just a linear step-by-step. We do find that but we also see these major transformations where something new emerges precisely because of the chaos in a way that is so much more rapid than you would have predicted.

Your chapter eight is one that I return to again and again every time I need sort of a shot in the arm or a dose of hope. In fact, this year, I don't know if I've shared this with you, this year Connie and I are sort of cheerleading and supporting the Great March for Climate Action. There's a group of marchers going from Los Angeles to Washington, D.C. over a period of about eight and a half months. We've got 100 speaking engagements lined up in churches and colleges along that route.

One of the things that I sometimes do is I show up on the rest days for the marchers and I do massage their feet and their calves and things like that. One of the things that I'll do now that I just thought about doing this the other day, because we listened to chapter eight, is to play that chapter, the audiobook version of that chapter for the marchers because staying inspired to be in action is such a vital thing at this time. It's so easy to fall out of that.

I'm curious, Paul, how old are your kids now?

Paul: I've got two men from a previous marriage who are 35 and 33. I have a 16, 14 and 12 year old with Michelle.

Michael: 16, 14 and 12, wow. Okay, so you've got both - wow, okay. Do you have any grandkids yet?

Paul: Just the first one was born a month ago so brand new experience for me.

Michael: That's so great.

Paul: Excellent.

Michael: Yes, exactly. I've got one granddaughter, three and a half, myself. In fact, the title of this series is *The Future is Calling Us to Greatness*. I keep a photo of Ida Renee, my granddaughter, as a way of she is the embodiment of the future calling me to greatness.

Paul: Exactly.

Michael: How do you stay inspired? How do you both honor the feelings that are occasionally there of anger, depression or whatever? How do you wake up each day? What do you think in ways that just really motivate you to continue doing this great and important work that you're doing?

Paul: I think there's important lessons here in a variety of spiritual practices, actually, that it is a practice. I do face days of despair and anger and denial. I face all those things in my life on a regular basis, both in big, long waves but also in a daily kind of response.

Every day you have to have a practice that says, actually, that's real. That's really sad. My response is that when I have that feeling as opposed to being angry at poor incorporations or bad politicians or whatever, which I certainly also have that reaction, I say it's just very sad, actually. It's very sad that we've caused this damage. It's very sad that we lack the respect for the wonders of life in this way, which I think is just tragic. It's very sad that we're going to lose a large amount of biodiversity on the planet for no great benefit.

I'm not one who believes the neighbors should be left alone. We are the dominant species on the planet in a physical sense and we are going to farm and we are going to have houses and we are going to impact on nature, but we should do that respectfully and we should do that in balance with the need to keep the system going.

Michael: Yes, exactly.

Paul: I think there is a sense where, okay, let me get this right. We're damaging the whole global ecosystem, threatening civilization and its success and potential to move forward. Destroying maybe half of the biodiversity on the planet for what benefit exactly? The answer is for quite shallow physical distractions mostly and that's just not okay.

The point of that, not to dwell on the negative side, is that I do acknowledge the sadness and it's a lot. It's a grieving process. It's a failure for people like me who spend 40 years trying to prevent it. It's a personal failure as well as being a physical sense of loss. I acknowledge that and that's life, that's what we have today.

It is what it is, as I say in the book. It is what it is, this is where we are, what do we do about that? I could stay here in despair and grief and anger, I can grow old and bitter, I can be a terrible father and husband because I'll be caught up in that. Or I can say, "Okay, well that's the way it is. I acknowledge that. We should respect and understand that's where we come from. Now where are we going?"

My kids ranging from adults to teenagers now are going to inherit this world. Whatever we do to it they're going to have it. If it's a little bit better than it otherwise would be, that's a benefit. If we have more stability in our society, more safety, more security that's a benefit.

Then I draw back on what is happening. There are around the world not just thousands but millions and hundreds of millions of people who are working incredibly hard every day to make this world a better place. I have to respect them and I have to say, "That's right. That's actually really, really good what you're doing. It is the most powerful thing you can do with your life, for your life and for the future."

By the way, when I do that and I look at the technologies being developed, people thinking of different ways to approach this, when I look at the activists in India, Bangladesh, elsewhere who are working so hard to make the world a better place I felt inspired by that. I feel good about that. When I talk to them and I help them to have hope and help them be encouraged I feel better.

The point of that is not only is it the right strategy. I'm a campaigner so I think about social change at the macro scale. Not only is it the right strategy for change, it's also the right strategy at a personal level. I feel better and I'm going to have a better life. My kids will have a better father. My wife will have a better husband. My community will have a better

member because I am going to be a nicer person if I live in this place of hope and belief than I live in the place of despair and anger.

It's a win-win in that sense, for me personally and for my work and for my society and family if I spent my time acknowledging the pain, acknowledging the grief and the loss by getting on with the work of making the world better. There is going to be a world. There is going to be a planet.

There are going to be humans on the planet and every little bit of improvement we can make to that future the better off they're going to be and therefore we're going to be and it gives us that meaning in our lives and that substance, which I think is quite a powerful kind of idea and a unifying thing that brings us together and, by the way, creates community and has me meet wonderful people like you who are doing similar work and therefore connects me into society in a way which pleases my heart and my soul and makes me enjoy my life more.

Michael: Amen. Wow, that was great. One of the things that I wanted to make sure I asked you about, actually there's three things that just popped into mind. One of them is this notion of the dam of denial breaking sometime in the next two to five years or something like that. I want to have you talk about that.

That's, again, one of those ideas, one of those means that many people when I share that with them it's like because if all we're present to is the way things are going in the wrong direction and we don't see improvement fast enough, that's a powerful means. I want you to talk about this dam of denial and do you still see it on the same time scale that you mentioned in your book?

The other is this one degree war mentality. I found that to be such a pregnant and hopeful vision. I won't mention the third one yet but if you could say a little bit about those two that would be great. Actually, not even a little bit. Go into it in as much depth as you're led to.

Paul: Okay. I think this is a really interesting awakening I came to just before I wrote the book, which is okay, Paul, let's just sit down and think through together, me and my head, how the hell would this unfold, what are the possible scenarios.

You can't argue the evidence. The scientific evidence around climate change is very straightforward and it's not just climate change, it's soil

degradation, it's depleting aquifers, it's can we produce enough food and air quality and so on. All these things are happening and they're all getting worse.

As I say in the book I just look at China and you recognize that's what it's like for all of us but happening faster and sort of on steroids, if you like. It's moving so quickly, the air quality and so on.

If we keep on growing this economy in a physical way, which is what we're doing and all government policy and companies are focused on us having more stuff and more physical stuff, then we end up with a planet which is so overloaded that all the issues get worse and worse and worse.

Let's just run that through, if you like, our heads as it unfolds. If you don't believe in change happening at a large scale you have to believe in the alternative. That is that the air quality gets worse, the climate becomes unmanageable, the sea levels rise, the science becomes 100% convinced that we are facing the apocalypse in terms of physical impacts on our economy.

You have to look at conflict emerging around whatever resources, wars erupting over fights for water. We would then sit back, observe all that and go, "Oh, there you go, that's a shame. What a pity. There goes civilization. What should we do? Nothing, we'll just watch it." No. That's not going to happen. This is the biggest fantasy you can possibly have to believe that humans are capable of facing that level of threat, facing that level of catastrophe and doing nothing. It's just not possible.

Therefore you have to think how are we going to respond. My study of history, again World War II is an example but many other examples, is that we wait until the last minute. We deny and we deny and we avoid and we delay. Then at the last possible minute we go, "This is really bad." Then we wait for a minute longer until it's really, really bad and then we respond and do extraordinary things.

Michael: I've got to jump in because it reminds me of the quote, and perhaps you said it in your book, I don't know, we were talking about Churchill before. What he said about Americans I think is true for us as a species, which is he said, "Americans always do the right thing after exhausting every other possibility."

Paul: One of my favorite Churchill quotes. That's right, and so that's what we do. Therefore how does that unfold is that I argue that it is the dam of

denial breaking. The pressure keeps on building. Ironically, which is the phase that we're in now, the worse a situation becomes the bigger and more dramatic the response has to be, which is why I talk about the one degree war playing as an example, and I'll come to that in a moment.

Beware that the later we leave it the more dramatic the change has to be, therefore denial gets stronger. Because the change has to get bigger and because the scale and speed of response must get larger, then denial goes for longer. That's where we are today.

We're at the point now where to have any hope of stabilize the global climate we have to eliminate carbon emissions from the economy into the atmosphere in about 20 years. That means we have to eliminate the coal industry, the oil industry, the gas industry, not those companies necessarily but that industry, from the economy inside 10 to 20 years.

That is unimaginable. You have to imagine the alternative, that we don't do that. That is, I argue, more unimaginable. Therefore denial works like that. It goes and goes until the pressure becomes unbearable, until the intense feedback loops within that denial becomes so ridiculous.

We have today these sort of people who argue about the science of climate change. This is like what happens next? We're going to argue that we should be careful about plants because gravity is only a theory. It's like we're denying the most basic fundamentals of science. Not the fancy, arguable edges of it, but the most basic fundamentals of it. That's just kind of ridiculous, but of course that's what denial is. You have to invent a new reality to justify the absurdity of what you're saying.

Michael: In America you've got another factor. This probably is not much of an issue in Australia but it's a huge one here where something like 41% of Americans believe that these are the end times anyway. There's that world view, that religious world view that makes it very easy to stay in denial and even to see the bad news as a good thing. That's just the indication that Jesus is coming back.

Paul: Exactly, which is blatantly absurd any human consumption. There is nothing in the spiritual text that would imply that was a remote possibility that that would run out like that. Therefore, that is sort of almost another form of denial, that we have to invent this fantasy to justify our belief systems because our belief systems are so illogical that we would destroy life on Earth. As if we would do that.

Then how do you justify that? You have a fantasy delusion that you invent to justify it. That is where that comes from.

Michael: One of the best little books I've read, it's just a little thing by John Michael Greer called *Apocalypse Not: Everything to Know About Nostradamus, 2012 and the Rapture is Wrong*. It's basically the 3,200 year history of end times thinking and the tragedies that have resulted because of that.

Paul: Exactly. That's, again, a human tendency, if you like, to justify a behavior. My conclusion is the dam of denial will break. Like any dam that's overloaded and the pressure gets too great the response is inevitable. That's why that will happen and I do think it will happen in this decade.

I do think we're on the edges of that and I support that theory by looking at what's happening around the world with denial. We see in the US and Canada and some parts, including Australia at times, just the edges of society looking at this in the most ridiculous, unjustifiable ways and telling big lies that are so ridiculous it's very hard to argue against them at times. I think that's sort of where we are.

Then you have to believe, okay, so given we have left it so late, given we really are well advanced in this process of the climate changing and of the other social and ecological impacts on society, the response is going to have to be World War II like in terms of how we behave.

My conclusions is that we have to imagine that. I wrote with my friend, Professor Jorgen Randers from Norway, who is one of the authors of the *Limits of Growth* in 1972, way back 40 years ago looking at that. Say what would the response be like? How can we fix it? If we actually wanted to fix it, not just make it less but fix it, what would that take?

To believe in that level of change you have to understand what the change could look like. I worked with Professor Jorgen Randers from Norway who is one of the authors of *Limits to Growth* in 1972, so 40 years of history on the issue. He and I said what would it take to fix it? Not just ameliorate it and make it not as bad, but what would it take to actually fix climate change? Could you imagine victory if you'd like on this issue?

The answer was yes, we could, actually. We went through it and it actually looks like it's a lot easier than winning World War II was. It looks like it's a lot easier than many things that we've done. It involves reducing emissions by 50% in the first five years and then eliminating net emissions

from the economy of CO2 within 20 years.

Actually it's hard to model this precisely but it appears to us to be beneficial economically. It creates more jobs, more entrepreneurship, more innovation, cleaner cities, healthier people and it can be done not without some very significant disruption to the economy, but certainly less than World War II and certainly without the kind of deaths and tragedy that that involved.

It's really just a big economic change done at a significant scale. It does require rationing, it does require us to think differently about how we behave as a society. It does require very significant economic change. Ultimately it ends up with more people working, more businesses being more successful and stronger and healthier communities.

Therefore this is not like World War II in the sense of the tragedy. This is almost all upside, except of course for those people who lose their jobs and they have to find new jobs. What we're saying is that the solutions create more jobs than the businesses that we're having to eliminate from the economy so it's actually a positive.

The most important thing, though, is it is possible. It's not that difficult. I'm not saying it's easy but it's a lot easier than facing the collapse of the economy, which is the alternative strategy.

Michael: That's great. One of the things I found really not just interesting but hopeful in your book was where you described how - there was an economist, an Austrian economist if I remember correctly, and how you see the old system winding down and the new system emerging.

Paul: We're kind of really attached as a society at any given point in history to the way things are at the moment. If you take a longer view of history you see that we've seen very significant change and punctuated equilibrium. Not gentle change as you talk about in your work. We are seeing a very consistent pattern of stability followed by dramatic upheaval followed by a new state.

That process is actually particularly suited to our liberal free market democracy system. I've always been an arguer that says the market is actually a very effective way of allocating capital, of organizing our society, of motivating people to work hard, to give people rewards. I'm all in favor of markets and business and believe that that's a really powerful mechanism for society to organize itself within the right regular tree

government framework. Deal with the bad sides of that.

In this case what we're looking at is the process that was named by Joseph Schumpeter, who was an Austrian economist, who referred to creative destruction which I think is a lovely term. Creative destruction applies to nature, it applies to humans, it applies to our market economy. What that means is that it's an ongoing process of creatively destroying the old and replacing it with the new.

Markets, of course, and technology do that all the time. We don't have horses and carts anymore as our main form of transport. We recognize that our homes are a lot more comfortable, a lot drier, a lot warmer, cooler, more comfortable to live in than they used to be. We have a lot better quality of food. We have a process where this system does deliver better outcomes for us. This is not about going back to the caves or going backwards, it's about going forwards.

Recognizing that to achieve that we have to continually destroy the old and create the new. We have in our economy now a whole bunch of practices that we're all part of. It's not like good guys and bad guys. I don't like to demonize fossil fuel companies, for example, as being bad people. They're most certainly not. They are people like you and me who are on the wrong side of history in terms of the technology they were supporting, but they're not bad people.

We have to change those companies or replace those companies. Markets and creative destruction is the way to do that. Now we are seeing extraordinary innovations in technology and business models around solar power, for example. I think the most important thing anyone can do in this area right now is put solar panels on the roof of their house. It is such a powerful way of generating jobs and economic activity.

It's so good for our communities because they're local jobs always, they have to be by their condition. It is so good for our economy because it lowers our cost of energy, which is always a good thing to lower your cost of living. It creates jobs, it creates new businesses and it gives us control over our lives and our energy production.

That is a really good example where we are seeing really large businesses grow. My friend Danny Kennedy from a company called Sungevity, one of those in California, growing rapidly by giving people solar panels on their roofs with finance and no upfront cost. Solar City does this and lots of companies do it. Great businesses, employ hundreds and thousands of

people. Local jobs, good jobs.

Now, these are the sorts of companies we want to succeed. I want these businesses to be very successful. I want their families to get rich, to do good things for the world with that money and to show that we can find a better way of doing business than the old ways.

Now, that does require us to transition out of old businesses. It does require coal companies to shut down and cease to exist in some cases. They could transition to become different sort of companies, but most of them won't and that's the way capitalism works and that's okay. It's not okay for the individuals who work there. They need to be helped to transition to new businesses, new jobs and new opportunities.

That's the way the market does that over time. We need to help them as communities and as governments to transition in the right way and to adjust in their way. They need to transition because those jobs aren't going to be there. That's the way the market has always worked and we have to recognize that's a process that we understand, that we should do fairly and justly but we should do it. We need to do it. If we don't do it then we'll all lose our jobs because the economy is going to be in a lot more serious trouble.

Michael: Exactly, exactly. You mentioned markets and I want you to lean into that a little bit more. I found really fruitful and enlightening actually your discussion of the essential role of regulation and oversight and various kinds of things. That's part of what makes markets work in the first place. Oftentimes you hear, at least in America you hear, sort of a dichotomy. Either you let markets do their thing with no regulation or this sort of binary. I found your thinking to be really useful so could you share something about that?

Paul: Let me draw on that issue and the sort of spiritual history of Christianity. We, I think, believe in the freedom of the individual. We believe that people have the ability to make their own decisions, to choose faith or not and so on. Yet we have rules and we have consequences in society and in religion for people who do or don't choose a certain path.

We have values and we have beliefs and those values and beliefs are sometimes just culturally applied, sometimes they're legally applied within our society to say, "Actually, it's not okay to beat your neighbor. That's just not okay. That's not okay in terms of the morality, that's not okay in terms of our values as a society and by the way if you do it you'll

be arrested.”

That doesn't mean that that person lacks freedom. That person is being given the freedom to make their own decisions with consequences if they make bad decisions. I think this idea of freedom and liberty being absolute has no basis in history, has no basis in any kind of a spiritual practice. It has no basis in any legal structures or in any part of society. Every society has consequences.

I'm a big believer in markets, I'm a big believer in the power of business to drive change in a positive way because I'm a believer in people. People have the ability to do great things if we give them the right frameworks in which to act. That's the lesson for markets.

We want markets, we want creativity, we want innovation, we want entrepreneurship, we want people to take risks, to be bold, to do things and to get rewarded for their success. We also want them to be constrained against doing things that we think are bad for the rest of the market and bad for society.

It's not okay to kill people at work. It's not okay to have bad safety practices. It's not okay to have a highly polluting vehicle anymore. We have rules around these things because we need to have them to protect the whole. That's the principle of markets. We want the raw energy, as Tom Friedman said, we want the raw energy of the tiger but we want it caged and we want it in a place that is safe for us to see it and to be around.

That raw energy, if you like, of markets is a powerful force which can be good or it can be negative. The role and regulation of government is to constrain that to achieve the outcomes that we wish to achieve as a society.

Michael: Yes, yes, that's great. One of the things that this conversation is reminding me is a fellow Australian who I found to be just really inspiring in terms of helping me think about the trajectory of evolution towards greater complexity, interdependence and cooperation at larger and wider scale, not that there aren't also setbacks. There are.

How that happens, certainly in the human realm as well as in the biological realm, it seems to be that the system needs to find and grope its way into an aligning of self-interest at multiple levels. I'm speaking of John Stewart's work. He wrote a book called *Evolution's Arrow: The Direction of Evolution and the Future of Humanity*.

This is not a theological position at all. He's just saying that from the perspective of now looking back we see greater complexity, interdependence and cooperation at larger and wider scale and that we are not separate from that, we're part of that process. We are that process becoming conscious of itself.

The dynamic of aligning self-interest at multiple levels so that an individual component of a system, component of a whole, whether it's a multi-cellular creature or tribe or clan or chiefdom or kingdom or nation state or whatever, the aligning self-interest such that the impact of the part on the whole is reflected back to the part. If the part has a positive impact on the whole it benefits in some way. It's motivated, it's inspired to do more then. If the part has a negative impact on the whole in some way, there's some negative consequence for the individual. The incentive is to do.

The way I sometimes speak about it is we need to find our way into a system. John Stewart uses this idea of a vertical market. I'm not going to go into it right now but it's creating a market that keeps finding ever more effective ways of managing at multiple scales, whether it's governments or townships or city councils or whatever, so that this aligning of self-interests at multiple levels happens so that we need to create a system where the cheaper, easier, more convenient thing to do is the right thing to do.

What will help facilitate that is creating a system where individuals, corporations and nation states that do well to larger common good benefit, the more they do the more they benefit, and individuals, corporations and nations that disregard or harm the common good are taxed or penalized or there's more restrictions.

I find that Amy Larkin in her book *Environmental Debt* also talks fixing some of these systemic design flaws. I see that the one degree war plan as sort of in that same vein, looking at how do we go from where we are now to a world that we're all really proud of, where my mentor Thomas Berry called the great work of humans coming into a mutually enhancing relationship with the body of life of which we're a part and upon which we depend.

Anything that I've just said that sparks anything for you that you want to share, go for it.

Paul: I think it's really important to see the evolution of the thinking culture and systems of humans in the context of evolution of life on the planet. We do have certain tendencies, as you've talked about, towards greater complexity, towards greater cooperation, punctuated by some pretty ugly local disasters as the system feeds back upon itself and punishes, if you'd like, behavior which is not helpful towards that evolution.

That's where we are globally, that we are kind of evolving at the local, regional, national, global scale all the time. Those countries that get this right will succeed in the future because the system will support their success. Those countries that don't will go into decline.

We have many examples at the local scale, going back thousands of years, of individual civilizations that collapsed or not according to how they behaved. We have it in economic history in the last couple of hundred of years of countries like Argentina that were on the edge of becoming rich countries, like Western countries, and didn't because they made bad decisions.

That applies to companies, it applies to individuals, it applies to communities. That's where we are today, is making those decisions every day. This is not like we're going to have some macro awakening where all the big guys get together in the United Nations and make a decision to fix the world. They may be part of that in this process but the more important process are the people putting solar panels on their home.

The more important process is Sungevity, Solar City, Tesla being entrepreneurial companies producing new ways of transport and doing energy, which are successful and are rewarded by their communities, by their employees and by their society and by the market and are therefore more successful.

It's individuals who do great work for the world, whether they're on the long march, as you refer to the long climate march in the US. These are all people who are doing things to make society a better place.

Yes, it comes and goes and it moves forward and moves backwards, but fundamentally we reward as a society people who do good things. We understand while we all have bad days and we don't do this, the general trend is that we reward because we understand that if we're going to help the people who do good things we're all better off.

Why do we have awards for community behavior? Why do we have

ceremonies to reward heroes? We want to encourage that behavior. Why do we celebrate entrepreneurs? Why do we attack companies that do bad things? We're trying to reward and punish good and bad behavior towards an outcome. That is a system evolving.

We evolve at the individual level, we evolve at the spiritual level, we evolve at a practical nuts and bolts economic level. This system as a whole does move towards advancement. Which is why we have as a society, if you look back for thousands of years we have advanced. Yes, we've done some bad things in that process and we've had some bad days, but by and large we're better off than we used to be.

We're not hungry anymore for billions of people in the world. Yes, there are billions of us still hungry. Most people used to be hungry a lot of the time. It's not like we've fixed it but we certainly have moved forward and that's the process that we should have faith in, that we are capable as humans of moving to this high level, that we do have the capacity.

We certainly have nothing holding us back in terms of economics or technology or physical things. It's only our fear that we need to change. That is actually something we can change very quickly and then have a big result very fast.

Michael: That's great. There's one thing I just remembered that I wanted to ask you about. Every time I listen to your book, I read it once in hardcover but then I listened to it two or three times. About 70% of the books that I experience now Connie and I listen to.

One of our favorite little rituals is that we've got books on Audible.com on our iPod. We'll go to bed sometimes 45 minutes to an hour earlier than we normally would and we just hold each other. We both have earbuds so we're both listening to the book until one of us starts to snore and we wake up the other one and turn it off. This way we experience books together.

There was one thing that you said in your book and I haven't followed the footnotes to see, but I wanted to ask you about it. I seem to recall you saying that there was some research or some study that showed that if we stopped our emissions that things wouldn't continue to heat up. That goes counter to some other stuff that I've heard. Could you say a little bit about that? Is that accurate? If so, where is that study and where can I go to learn more about that?

Paul: Yes, it's really important data. What it says is that they're kind of both right. If we suddenly stopped emissions the levels of CO₂ in the atmosphere would not change quickly. There is a lag in the system which means that as we stop emissions today the Earth continues to heat up because there is a 30 to 40 year lag between when the emissions get to a certain level and when the temperature system responds because of the way nature has the ability to absorb heat for a while beyond limits.

Those consequences are right. If we stopped emissions today there would still be consequences would get worse. They would get nowhere near as bad as they otherwise would and we would certainly keep below the two degree threshold that scientists agree is a line that we really cannot cross. I argue it should be one degree.

Michael: I agree.

Paul: Two degrees is certainly a place that we really cannot afford to go near, let alone past. It is true that we would keep on warming for a while, and that's why in my work I talk about the need to not just go to zero but to go negative. We actually have to absorb CO₂ back out of the atmosphere and lock it up. There are technologies that can do it. They're not today cheap but they're certainly cheaper than the alternative of a collapsing economy.

That idea that we have to actually not just stop but then go negative and draw down -

Michael: If we had billions of people that were building soil in some of the most advanced ways to do it, that would help.

Paul: Exactly. The one degree war plan talks about this, that we have to build CO₂ back into the soil, we have to capture CO₂ from the atmosphere and bury it, we have to convert in some cases to second and third generation biofuels and absorb CO₂ to create energy and then capture that CO₂ in the burning process and lock it up. There's a range of ways we can do that which will become normal practice, I think for 100 years or more, to try and get the climate back into a sense of stability.

We do have to cut emission and move them to zero as fast as possible. I think 10 to 20 years. We could do it in five or ten if we chose to do so with disruption, but not unmanageable disruption. Then we have to keep on absorbing CO₂ from the atmosphere. We may well have to reflect the heat back into space as well. We may well have to think about white-coated roofs or range of things that we know are being explored today to actually

reduce the heat load on the atmosphere as well as actually preventing the CO2 from being there in the first place.

Michael: Yes, that's great, thanks for sharing that. Well, one of the questions just sort of to wind this down, one of the questions that Connie has specifically requested that I ask folks, I purposely don't let you know about it ahead of time because it's sort of off the wall. It's been really fun to hear people's response.

Which is if you were to invite any three people in human history from the past or people who are alive today to dinner, and some people have answered it like a dinner party where all three get to interact with each other and you, or just one-on-one. If you were to have a beer or have a meal with any three people in history who would those be and why?

Paul: Wow, interesting question. I think I'd have Nelson Mandela for sure. Not for the usual reason, actually, of what an extraordinary thing he achieved. I'd like to talk about the years in Robben Island. I'd like to talk about how did you mentally cope with 27 years in jail in the face of such extraordinary opposition, deprivation personally but also worrying about your family.

How did you get to a stage of love and compassion for your jailers? That process, I think, is just extraordinary and obviously resulted in one of the great leaders of history. I think that is a really interesting personal journey that I would like to understand very deeply and would be really very, very cool to have that conversation.

I think in the same vein, Jesus. Whatever your religious beliefs, clearly was facing incredible political opposition to what he was saying at the time. Was confronting amazing levels of resistance from a dominant system which surrounded him at the time. Had to face building a movement and doing so with people who were genuine and not genuine and had their own agendas in that process. I think there is a whole fascinating range of lessons to learn there.

I think that there is lots of history of extraordinary people who have faced extraordinary levels of repression. We should be aware that in the Western countries in particular we are largely unfettered in our advocacy of pulling down the system. We're arguing for extraordinarily powerful people to be constrained, to lose their power, to lose their money, to have their businesses destroyed.

We had this conversation and you and I not in jail, you and I not being tortured, we're able to do this in a way which is I think quite amazing. Yes, people do suffer, people do go to jail for this cause and people in developing countries do face high levels of repression for activism in this area. We're very lucky to be in this stage. I think that's really important to learn from the lessons of history around that, which I think is really important.

Someone else I'd kind of really like to have the conversation with, and I think it'd be good to have it together in a way, is some of the great women who've been in political power in recent times but have pushed this early. The Gro Harlem Brundtland from Norway who headed up decades ago now the Sustainable Development Commission to try and think through who this works. Margaret Robinson, who I have met, former President of Ireland, likewise.

These are women who are in the holds of power, talking to the most extraordinary, influential, powerful people and heads of state trying to convince them of the need to act, but doing so within the constraints of their political environment. I think that's really important.

Then I think other women like Vandana Shiva in India who's sort of community organizing the work at the global scale as well. I think that's a really important lesson from this. I think three or four of them would make a really, really good dinner conversation.

Michael: I completely agree.

Paul: I'd love Connie to be there as well because I'm sure she would enjoy it.

Michael: I have no doubt, I have no doubt. Paul, thank you so much. Where is the best place to go for people? Again, now in this moment I'm not speaking to you, I'm speaking to whoever's listening and watching this. One of the blogs that I read religiously, fortunately he only writes one blog post every several months, is yours. So the Cockatoo Chronicles. I guess if people want to go more deeply into your work obviously your book *The Great Disruption* but just PaulGilding.com?

Paul: Yes, I'm always improving the website in terms of background information, more references and so on. Certainly getting the book, knowing what the book's about, what reviews have said about it, what other people have said about the book is online. All my blogs, which I should write more of but I only get around to it every few months.

Looking at those issues on a global scale. Plenty of other documents and research that I've done to back that up and so on.

Also people can contact me by that directly. Just comes to me. Just contact me by the website, email comes directly to me. If you're looking for a particular information or particular backup for those arguments, the book itself is very well referenced. I put a lot of effort into making sure that all the data is backed up and further information is available so people can sort of dive deep into the issues via the book and via the references in there.

As I said, on the website contact me or just read the rest of my writing there. It's always available and that's the best way to connect better.

Michael: Yes, and buy the book and give it. Buy a dozen copies and give them to your elected officials. Again, Paul, thank you so much for who you are and what you're doing in the world. I just wish you the best of success. It's great to feel this sense of this team of amazing colleagues, amazing hearts, amazing minds doing such important work in the world with a sense that the future is calling us to greatness.

Paul: Likewise for you, Michael, and for Connie. I just think what you're doing is fascinating and it's an absolute delight to connect with you and to your followers. I certainly look forward to having more interaction in the future.

Michael: Cool, me too.