

The Future Is Calling Us to Greatness

with Michael Dowd + 56 Experts



Peak Prosperity, the Crash Course, and Helping Others Prepare

with Chris Martenson

Big ideas from this session:

- Trends in the economy, energy, and environment — and how to be prepared and help others do the same
- The vital ministry and message of PeakProsperity.com
- Insights for prospering as our world changes

Michael: Well, Chris, I've been looking forward to this conversation for a long time. Thank you for being part of this series, *The Future is Calling Us to Greatness*.

Chris: Michael, it's a pleasure to be with you today.

Michael: Well, I suspect, Chris, as most people have encountered you, I first encountered you through your DVD *The Crash Course*, and I actually don't even remember how I found that. I think it was recommended to me on Amazon, because I was looking at other things maybe by Jim Kunstler or John Michael Greer or somebody. I forget.

One of the things I'm doing at the beginning of this series is I don't want to assume that all of the people that will be watching or listening to this will be familiar with you and your work. If you could just feel free to take your time, no rush, but help us get who you are. What are you best known for? What are you passionate about? What are you committed to?

How did you get to this place? So a bit of your story that led you to where you are.

Chris: Sure. Well, to begin at the end, I'm very fortunate that my mission and my livelihood are the same thing at this point in time. I got here kind of in a circuitous way. I'd love to tell you I was tapped on the shoulder and called to greatness, but what happened was my stock portfolio was getting ruined. I'm a curious guy.

My background is a scientist by training. I have a PhD from Duke University. I was in basic cell biological research for a number of years. I had a life shift. I went and got an

MBA and worked in corporate finance for a while. I'm a guy who likes data. I like numbers. But I also know how to tell a story with those things. That's the business side.

My portfolio was getting ripped in 2001. By this point in my life I've done everything I'm supposed to do. I've played the game, got the degrees, sacrificed my life to really pour into my job. I've saved. I'm a saver by nature. All of a sudden, poof, 40-50% of my wealth went away. I said, "Well, that's a little odd," and started asking some questions.

I started pulling at this rug we'll call the economy. This was quaint numbers back then. This was 2001-2002. The Internet was a very different place back then, hard to find good, consolidated information. But I just started reading, and I started exploring, and I was curious. One thing led to another, and all of a sudden I said, "Oh, my gosh. My country, the United States, is on an unsustainable trajectory," with respect to debt.

You've got this demographic situation with the boomers. We don't have funded liabilities at the municipal state and government levels. It all looked like I just saw people kicking the can down the road. Meanwhile, my stockbroker is saying, "Oh, just buy stocks for the long haul." All of a sudden, I uncomfortably had that sensation that you get when somebody says, "If after a half hour of playing you don't know who the sucker is at the card table, it's you."

I felt like I was being taken for a ride, that I'd fallen for some clever marketing, which was I throw all my money into Wall Street, and they skim like crazy. If I'm lucky, I get some returns. If I'm not lucky, it all goes away. That was where I started, but then one thing led to another.

Once I started really examining how the economy works, how money is actually created—which is a simple process to understand, but somehow it was never taught to me or anybody I've ever run into, how money is actually created. It's a powerful idea. It has a lot of explanatory and predictive power, I think, for where we're headed.

Then I started to understand, though, how energy fits into this story. Now, I'm a biologist by training. I understand intimately that organisms with energy are very different from organisms without energy. Mountaineers understand this concept, competitive swimmers. When you run your fuel down, your body doesn't behave like it used to.

The economy is a body. It needs fuel. High quality fuel is better than low quality fuel. I started looking into this and ran into this idea called peak oil, which basically says oil is a finite substance and it's going to run out someday. Not run out on a Tuesday, but you can't get more out of the ground, and you get less and less and less out of the ground.

Worse, the stuff you are going after is deeper, more dilute. It's not as high quality. It's like eating Wonder bread instead of whole grain bread. It doesn't have everything you want. Then I started

connecting things to the 30 in the story, which is the environment, ecologically. We're on this spaceship. It's very complex. We're undoubtedly ruining it.

These ecological things are not even the complex stuff, like, oh, gosh, we're acidifying the oceans. What happens if we knock the phytoplankton out of the food chain? Somewhat complex idea. How about something simple like whole cities are perched on top of aquifers that they're pumping out at a rate where you can calculate when those aquifers run out, and they will not recharge except over thousands or tens of thousands of years.

That's simple and linear. I said, oh, my gosh, humans can't even handle that concept. How are we going to handle these more complex ones? I put all three of these E's together, and I just said, look, the trajectory we're on is unsustainable. Things that are unsustainable end up stopping. They only stop one of two ways, on your terms or on some other terms. It felt to me like we were going to end on some other terms.

We as a collective, we're not making the right decisions. Individually, I trust people a lot. As a collection, I'm still not clear on the whole thing here. It felt to me like my country was just going to continue to perpetuate the status quo to the point that an accident happened. I felt like there were ways to, A, warn people about this and invite people to look at this lens that I have around the world, so they could see it the same way.

It's just data. It's facts. It's not belief oriented. I don't care which party you belong to, religion, anything. None of that matters to me. But here is some data. Here are some facts. But they do challenge our belief systems, and so my work in the world is—I used to think I was in the business of sharing information.

I'm in the business of challenging beliefs, and those beliefs are things like, "My children will have more opportunities than I do. The economy will always grow," things that people take for granted as assumptions I think are true if and only if the future is the same as the past. Well, if the future has low quality energy, not high quality energy, if the ecology is degraded, these are all very different things than the past.

My whole message is what if the future is different? What would it look like? I don't know. It's per se what or when it's going to happen, but I do know that we can be more resilient, more prepared, and enter that future in a very positive way, not a fear based way, although there are some things to be concerned about. So it's a little of both.

Michael: Wow, that was a great introduction, Chris. I appreciate that. I just want to go on record, anybody watching this or listening to this, I cannot recommend Chris'—it's called *The Crash Course*. It's a book by that title. The DVDs I especially encourage you getting. They're like \$9.99 on Amazon or something.

But also he has the whole thing available for free on his website. You can actually watch the whole thing. Then one of the things I really appreciated, Chris, at the end, because you really do cover—what I found is it was the best concise, but also pretty thorough, not in terms of the technical details, but in terms of the overall big picture around what you call these three E's, energy, economy, and environment.

What are the challenges there? Why it is we can say with pretty solid confidence that the next 20 years will not be like the last 20 years. Then what I so appreciated was that, A, your approach was not to try to—I understand you invested four or five years of your life into this and much of your savings, and yet you were making it available in a really affordable way, because you wanted the most people to get it, and then simply saying, “Hey, if you found value in this, donations are accepted and would be appreciated, because this helps me reach more people.”

That sort of general approach I find it's got integrity. It feels like it's not about taking really vitally important information and then making people pay a lot for it. But so much is engendering gratitude, like, “Damn, this shit is great.” Then, of course, I want to donate to help this guy reach more people, because it's powerful stuff.

Get the DVDs or watch his crash course. It's great stuff. I want to invite you to go a little bit deeper into each of these E's. Give us sort of the nutshell around energy, around economics, and around environment. You just touched on it there in the introduction, but I want you to go a little bit more deeply, because many Americans—many people watching this series are already going to get this to some degree.

But there are going to be a lot of people for whom this is relatively new and having somebody like yourself who can just paint the broad brush strokes, not in an alarmist way, but in a way that's sobering—let's put it that way—I think it would be really useful.

Chris: Great. Well, can I inject a fourthie into this story?

Michael: Absolutely.

Chris: It's exponential growth. This is a term people maybe have heard, and if they have a little math phobia from school, they might be shutting things off right now. But stick with me. This is really an important concept, and it's not hard to get. But it's something that we humans are not wired to understand, because we're linear creatures.

We get linear. We love one plus two plus three plus four. That's easy. Gravity operates exponentially. So if you've ever slipped on ice, you realize that can be a surprising moment. That's the thing about exponentials. They surprise us. What we find is that anything that's growing by some percentage over time is growing exponentially.

That's all you need. This becomes really important because we've engineered for ourselves a money system and an associated economic system that by definition are either growing exponentially or crashing and burning. Those are its two operative states. If you remember 2008 and 2009, literally the financial world almost came apart at the seams. We were really close to a big, gigantic financial accident.

The reason for that is that our money system stopped growing briefly in an exponential fashion. It was like the wheels came off the cart and the cart caught on fire and all of that. It actually behooves us to understand this just a little better. So here's a thought experiment to help us understand exponential growth a little bit.

Let's imagine that I have a magic eyedropper, and this magic eyedropper is magic because when I put a drop of water in your hand, that drop of water will double every minute. After one minute you have two drops of water, and after two minutes you have four drops. After five minutes you can fill a thimble up.

Let's go to some really big stadium. We'll go to Yankee Stadium at this point, because I get to pick one. I'm going to do two things in the stadium. I'm going to make it watertight. I'm going to handcuff anybody watching this to the highest row of bleacher seats. So there you are. You're in Yankee Stadium. It has been sealed.

At 12 o'clock tomorrow, there you are handcuffed. I go down onto the pitcher's mound. I put one of these drops down onto the pitcher's mound. The question is, how long do you have to escape from your handcuffs? Remember, after five minutes we filled a thimble up. We have to fill this whole stadium up.

When I ask audiences this, you get a range of answers. People say a year, a month, a week, 10 hours, a couple hours. There are all sorts of ranges, which just shows what our intuitive grasp of this is. We have a very wide sort of intuitive grasp of this. The answer is 50 minutes. That's how long you have to escape from your handcuffs, just 50 minutes.

Michael: Before you drown.

Chris: Before you drown. Here's the thing. Somebody watching this might say, "That Chris guy, he looks like a really bad estimator. I bet he underestimated the volume of that park by 100%. This park is twice as big as he thought." Well, for those skeptics, you can think 51 minutes. So there. Hopefully we've dispensed with the skeptics.

If you have really, really skeptical people, 52 minutes ought to get them in there. But it's 50 minutes. That's not the important question. The important question, at what time was

this park still 97% empty space, and how many people realize the seriousness of their predicament? The answer is just five minutes before 50 minutes.

So 45 minutes, all that has happened is 3% of the infield, 3% of the whole park, the infield is full, but five more minutes, it's over. That's the nature of exponential growth. Things speed up really quickly. Notice in this case we had something increasing by some percent, which is a lot. We had it increasing by 100% every minute.

Because it was increasing by some percentage during time, it's growing exponentially, which gives you this hockey stick shaped growth. It really speeds up at the end. Take that understanding now and wander with me over to the idea that we have an economy where everybody listening to this will know this.

When you hear about the economy, they say GDP grew 3% last year. A unit of time and some percentage. We want cars to grow exponentially. We want houses to be sold exponentially. We want exponentially more jobs. We want exponentially more of everything. This is not a good strategy on a finite planet.

This is where we are in the story. People alive today are alive at one of the most unique periods of human history, which is that we're at 7.2 billion. We're probably heading to 9 billion. Everybody wants that exponential economy. Everybody wants a house, a car, and a comfortable lifestyle. We can add up all the resources and say it doesn't exist.

There is just not enough. At the current rate we're living right now, we would need somewhere between one and a half and two planets. We only have one. We're already living past the ability of the planet to sustain things. This is everything, Michael. We're talking—it could be bauxite ore, lumber, fish out of the oceans, topsoil, water, copper, just basic resources.

We can now look at those and say, guess what, we can't continue to pull those out of the ground at an exponentially greater pace with energy being the biggest part of the story. Oil can no longer come out of the ground like it used to in the past. While everybody is confused in the world landscape going, "Gosh, we just printed trillions of dollars and Bank of Japan printed trillions and the Federal Reserve did and the Bank of England did, and everybody is printing. Where is our growth?"

I say wander with me over to \$100 a barrel oil and I'll show you why you're not having growth. It's impossible to grow the economy in the way we're used to with expensive oil. Expensive oil is just a euphemism for slightly crappier oil. It's not the same stuff we used to get out of the ground in abundance, really high net energy.

That stuff we're doing in Bakken up in North Dakota. Instead of going down 1,000 feet like we used to in the spindle top formation, or some of these big famous fields of the '20s and '30s, we go down 10,000 feet now, and we turn the drill bit sideways, and we go another 9,000 or 10,000 feet through a shale formation that might be as thick as a house, as tall.

It's this little, tiny, thin seam, 20,000 feet of drill strength through this big 25-stage frack, and then we get something that flows at about 400 barrels per day, but declines really rapidly. In the old days, you could have wells that would flow at 5,000, 6,000, 7,000 barrels per day for 30 years. We drill these really long, intensive things, and they last a really short time.

They're mostly gone in three years, and they just decline the whole way through. That's okay. We just keep drilling them as fast as we possibly can. But anybody should be able to back up and say, "That's not the same thing like we were doing 30-40 years ago." Therefore, it's not appropriate to expect that the world is going to work the same as it did 20, 30, 40 years ago, because the energy isn't the same.

It's like our mountaineer again, but he's living on Wonder bread, trying to make it up and down some big mountain. He used to be eating high quality food. His performance has been degraded. This economy is the mountaineer in this metaphor, and we're starting to run it on increasingly crappy fuels.

My prediction is that this just continues to go like this. It doesn't work. But they keep printing, because the people in charge do what people always do, which is, "Please don't let this fall apart on my watch. I can't get in trouble for doing what the person before me did." It's just human nature. Human nature is we're going to perpetuate this as long as we can.

I think it ends in an accident, but that's a prediction. But at any rate, it's time for people like the people listening to this, like you and me talking, to have this conversation about where we really are in this story, because it's not happening at the national level, not in our country. Other countries, yes, but not here.

Michael: Yes. Well, one of the things that this leads me to want to ask you about is energy invested and energy returned, that whole sort of the equation, because so often times people who haven't thought much about peak oil or resource depletion or peak everything, as you call peak prosperity, just sort of naturally assume, because they've bought into the myth of perpetual progress, that things are just going to keep getting better and better.

Or in some cases they've bought into the myth of the apocalypse. There's no need to be engaged, because the whole thing is going to hell in a handbasket anyway. But let's just stick with the myth of perpetual progress at this point. They'll think of something or some other energy source will save our asses, basically.

Say a little bit about return on energy invested. When you start comparing various energy sources, it's not so easy to just assume that something is going to take the place of petroleum.

Chris: Great question, because this is actually the heart of the story around energy, and it's the most important concept in there. It's, I think, fairly simple to understand, but it's never talked about. Most people wouldn't have had exposure to it yet. It works like this. We run society. So everything in my room right now and in your room, and if I get in my car and go somewhere, and everything I see in every store that I might go to, the grocery store, all of that got there because there was energy bringing it there.

What we care about is not actually how much oil we're getting out of the ground, but how much we got out of the ground and was left over after we had to invest energy to get it out of the ground. Think about it as if we had a potato farmer, and the whole town is relying on this potato farmer. But all of a sudden, every year the potato farmer invests 1,000 of his own calories and gets 10,000 calories of potatoes back.

He has 9,000 surplus potato calories that then help support the shoemaker, the candlestick maker, the barrel maker, and the town supports on that. Let's forward a year, and the farmer has a bad year. He invests 1,000 calories of his own energy, gets 1,000 calories of potato energy back. The town no longer has surplus energy to run on.

It's the surplus that they run on. It doesn't matter how many potatoes he got out of the ground. It matters how many extra potatoes he got that year. Oil is the same thing. In the past, we were investing one unit of oil energy to get 100 back. There were 99 extra units. Go for it. Build bridges, transcontinental railroads, interstate highway systems, you name it.

But we're now at the point where—and I think your listeners will appreciate this. If you watched the deepwater horizon accident, a very dramatic accident, but if you noted the rig that they were using, this thing is huge. It is a gigantic, enormous thing, larger than a battleship. It's just this extraordinarily huge device.

It's there and parked out so that it can drill down through 26,000 feet of stuff and find a pocket of oil that was—it was a lot when it got dumped into the Gulf, but if we as a species had pulled all that oil out and had burned it on the globe, it would have lasted about 24 hours, the entire field that they were chasing.

What we're at right now is that we're spending many units of energy to build that giant thing, to drill that big hole, to pull out that tiny amount of oil. The investment of energy is huge. The returns are small and getting smaller. That's what we're seeing in this whole story, is just we're getting less back, which means there's less for society to do whatever it wants with.

Where we used to get 100 units to one, well, then we were getting 25 to one in the '70s. Now it's probably 10 to one maybe for an average find. But the oil sands up in Canada, five to one possibly, maybe two to one. Here's the thing, Michael. Once you get below 10 on this chart of saying what are we getting in terms of energy return on energy invested, the amount of energy left over for society starts out level, level, level, but when you get to 10 it just falls off this cliff.

We've never tried to run a complex society falling down this energy cliff before, but that's where we are in this story. The energy returns on the energy we're investing to get energy is declining. It's the most important story of our times. We should have a national commission that studies it. It should be a well-funded area of research.

Nobody can get a grant to look at this. The Department of Energy has no interest in pulling the covers back and revealing where we are in this energy return story, even though I would argue it's the most important criteria that we would have to evaluate the decisions we're making right now.

Should we put in a bullet train, or should we insulate old homes, or should we try and get electric cars? Politically, I can tell you what makes sense, but from an energy standpoint we're just flying blind. We don't know, because nobody studies it.

Michael: Yes. Yes. This is great. That's a great overview. Talk a little bit about energy and return on energy invested when it comes to renewables.

Chris: Here's where a lot of people have a lot of faith and hope invested that renewables are going to save the day. I'm going to tell them right up front that they can't, not in the way we're hoping, if the hope is that what we'll do is make the seamless, painless transition. Hey, I was running my car on oil. Now it's electricity. No worries.

Here's why. Every time humans went from one energy source to the next—so we went from wood to coal and from coal to oil. What we were doing is we were moving up the curve of energy density. Wood is a lot less energy dense than coal, which is a lot less energy dense than diesel. Making that transition from a less dense to a more dense energy source is easy.

It's easy. It's economically favorable. The economics all work out. It marries into our exponential money system perfectly. Alternatives, no matter how clever they are, we're going the other direction on that curve. We are going from—sunlight, even though it's really strong, it's very, very dilute compared to an oil well or the amount of oil we get out.

It's fine. I think we could move down the energy curve, but we're going to have to prepare ourselves for this idea. It won't be like the ones in the past. It won't be as easy as

going from wood to coal. That was easy, no brainer. The capital required is a lot more, so we'll have to dedicate a lot more of our societal effort into these things.

It can't just be something, oh, the market will deliver that someday, because it will require us to sacrifice something else in order to get those done. We'll have to prioritize them. It's not an and. It's an or. "We'll have all of this stuff we used to have, and we'll get alternative energy." We don't have it. It's going to take a fabulous amount of investment to get us there.

We have early returns. Spain has the largest solar installations we know about at this point in time. Maybe they didn't do it totally efficiently, but we have a full study now, which did look at how much did they invest in that and how much are they getting back from an energy standpoint? One study. The answer is the energy return on energy invested for all of Spain's solar investments, which are large.

It has an energy return of about 2.45, way down the list. It's very low. If it had an energy return of over 10, I'd be, okay, we can do this. At two, okay, Michael, this is not going to be as seamless or as easy as people are hoping, because there's just not a lot of energy left over from that.

Furthermore, in this story, we don't have a single example yet, not one, where electricity from solar cells was used to entirely build an entire new plant to build solar cells, plus run electric machinery that harvested all of the natural resources out of the environment and smelted and converted and processed them to make a new solar plant.

That would be a closed loop. You'd use the energy from this to recreate the energy, so that's the minimum investment required. Then whatever is left over from that we get to use as a society. We grow food with it. We move ourselves around. We run techno dance halls, whatever. We don't have that closed loop yet. We're still subsidizing the building of alternative energy with fossil fuels in a big, big way.

That's fine, but I'm here to tell you that the pace at which we're doing it is a skinny fraction of what it would need to be in order for us to even remotely have what I'll call a non-disruptive transition.

Michael: Yes. Yes. That's great. Well, Chris, you've spoken to exponential growth. You've spoken to economy. You can say a lot more about economics there, but you've also just addressed some of the important issues on energy. Say something, if you would, about the environment, about all the other aspects of sort of this last E, environment.

Chris: I'd be happy to. Fair warning. This is an area I find really troubling, because the trends there are absolutely stark and sometimes I actually have trouble emotionally processing them.

Michael: I'm with you.

Chris: The World Wild Life Foundation just released a report this week, which said that since 1970 we've lost 40% of all the animals in terms of numbers across the world. That's a really—I can't imagine a world without animals, but that's literally the trajectory we're on. That speaks to the idea that even at 7.2 billion people moving—so in 1970 we were at roughly 3.5 billion.

Going from that 3.5 to 7—so when we doubled that population once from 1970 to currently, that doubling, that growth from 3.5 to 7 billion caused 40% of the world's animals to get sacrificed to that experiment, if you will. Now we think we're going to go to 9.6 billion, another couple billion from here, and we're already seeing signs that at our current population level there are stresses and strains.

So that's on the biological sphere, the world's oceans. The large fish stocks are down. We've seen population collapses either from complete and total in case of cod, or to 93% of the tuna are gone, et cetera. Stories are everywhere. But we see this also with the way that we farm. We farm industrially, not agriculturally, unfortunately.

It means we sacrifice topsoil. We lose topsoil as part of the farming practices. We take what I would call soil and convert it into dirt, soil being this rich, rich biological material and turning it into literally just a substrate that you pour chemicals on, nitrogen phosphorous, potassium, plus some other stuff, maybe some herbicides and a few pesticides, and you grow stuff.

That dirt only works with all of those petroleum inputs as a growing substance. Without it, oops, it's not really a very productive enterprise anymore. When I look into the environment, we see extraordinary water issues coming. Here's a fact. If I'm in Saudi Arabia, I'm freaking out right now, and here's why.

Their main aquifer that they rely on, which by the way they're using to grow wheat in the desert, they're drawing it down and it's going to be gone by 2016, at the current rate they're going. That's their main aquifer. So what are they doing? They're building desalination plants as quickly as they can.

They're going to take more of their oil and they're going to use it to create fresh water, which is fine, but you can still calculate this, Michael. You can put a timer on it. You say how long will

your oil last? How much oil does it take to make fresh water? How fast is your population growing? Say, wow, this doesn't pencil out forever.

It pencils out for a time, but not forever. This is the part of the dialogue that really I think the environment helps wake us up to, is the durability part, like it's saying wouldn't we want—let's pick a time frame. I want there to be a place, a habitable place, for my children and grandchildren in 2050, or 2100, or even 2500.

I care long term. We can see that we're going to have extraordinary difficulties in the next 5, 10, 20 years just meeting the basics in terms of water, food, other things like that, which are assumed services that nature just provided for us. We have to take that out of the assumption stage and say, listen, we can either be good stewards of this stuff or we add stewards.

That's really where we are in this story right now. I'm of the belief that this natural world is an extraordinary creation and we're here as part of it. We are not apart from. We are a part of this thing. That's the part I feel we have to make an evolutionary leap as a culture, as a collective people, where we have to really start understanding that we're not separate from.

As within, so without. Whatever we do out there happens in here. You can't poison the outside and not poison the inside. This is a lot more of a porous container than—we're understanding that now. We're starting to get the gut biome and the way that our DNA actually seems to talk with the world a little bit and can store memories and transmit those.

Science is really coming a long way and saying this is not so much of an us versus them. This all seems to be connected somehow, and we're part of it. That's where the environment story causes me both a little bit of hope and a little bit of grief. The hope, though, is that this is our wake up call.

This is something that you can't ignore, that you have to look at on a variety of levels, even an existential level. I think it's inappropriate for us as a conscious species to destroy things that are beautiful.

Michael: Yes. You're touching on what has been my great passion for 20 years, and especially the last 12 years. Connie, my wife, who is a well-known science writer, published four books, all mainstream science publishers. I pastored three churches over the course of a decade and have done environmental sustainability and community organizing work for six years after that.

We've been living on the road, as you may know, for the last 12 years, speaking to about 2,000 groups all over the continent, literally from atheist to evangelicals and everything in between. What we focus on is evidence as modern day scripture. That is evidence is our best

map of reality, our best understanding of reality, whether you use divine God language to talk about reality or whether you use secular language.

We've been out of right relationship to reality. We are now about to experience the consequences of that. Yes, you could call it the wrath of God, but it's not like there's some supernatural being who is pissed off at us and going to punish us because we've turned our back on him. It's because we've been out of right relationship to reality, and there's a cost to that.

Hopefully it will be also the great homecoming, sort of the prodigal species waking up, having squandered our inheritance, waking up to our predicament, and hopefully coming back home to God, to reality, and doing so with a sense of humility. There's nothing more important right now than to live in right relationship with what's inescapably real, namely time and nature.

To be in right relationship with nature is to have an honorable relationship to nature, not to treat it like an it to be used and exploited by us for our own benefit, but to respect it, to honor it in a truly "I vow" kind of way. To have an honorable relationship with time I think at the very least means first having our best evidential understanding of time, that it doesn't just go back thousands of years, but it goes back millions and billions of years.

If we're not committed first and foremost to ensuring a just, healthy, and sustainably life giving future, we're betraying not only the future, but we're betraying God, or whatever our name for ultimate reality is. I so appreciate the fact that in the last section of your book and also your crash course that you don't have a cookie cutter.

You don't say, "Here's what everybody needs to do." You're not simply promoting one response. You're inviting people to assess the various aspects of their lives, financial, emotional, family, community, and what have you. A lot of what we've been talking about, especially what you've been sharing, could sound like doom and gloom to people who really haven't taken into their heart, who haven't allowed themselves to feel the fear and the anger and the grief that I think is necessary.

You don't want to stay there, but if you don't feel that stuff, you're probably in denial. But then how do you—your whole website that you do with Adam Taggart, this peak prosperity, and yet interestingly enough, your tagline itself—well, on the one hand it's called peak prosperity. I'm assuming that means that we're sort of at the peak or soon to be at peak or post peak with all the different categories that we've previously identified as wealth or prosperity.

Yet, also, the tagline is "Insights for prospering as our world changes." I'm imagining there's a different definition or a different understanding of what it means to prosper. Anything you want to say about any of that?

Chris: Well, thank you so much for the work that you're doing. I truly think that we're on the same path. Here's the thing. I'll be honest. When I first got exposed to this information and started assembling it—and it was a slow process, because there was no crash course for me. I created what I wanted to find and didn't.

I went through what I now recognize were basically the five stages of grief that Kubler-Ross talks about when people are confronting their mortality. You come out of denial or a lack of awareness around your condition. There's this angry stage. Boy, I had that for a while. You go through this bargaining stage, which could be, "If I just buy a Prius, the world will be fine."

I totally did buy bargaining purchases. Then there's this depressed stage, where it's like, "There's nothing we can do about this. Too big." Then finally a form of acceptance, or a word that I actually prefer is closer to me is surrender. Not surrender of waving the white flag, but just yielding to what is. Acceptance means I'm okay with it. It's good.

I'm not okay with a lot of things that are happening in the world, but I see that this is what is.

Michael: Yes. I call that either faith in God or trusting reality or honoring reality.

Chris: So I'm trusting reality. It is what it is. Now, though, that I've been on this path for a while, this is the greatest thing that's ever happened to me. Whereas I started towards this out of fear, I would now run towards it with joy, because what happened was I got to shed a lot of the things that I had just adopted unthinkingly, uncritically, just lived into.

Boy, I did. I had the big house on the water in Connecticut. I was the vice president of a large corporation when I woke up. If I hadn't woken up, I'd still be there doing that. I can tell you I would now regret that. What happened was in this waking up was I realized that I got to consciously choose what I wanted to have in my life, rather than just unconsciously accepting what I had been born into.

My culture was saying, "Do this." I find it was actually for me a rather unfulfilling existence, even though I had ticked off all the little boxes and grabbed the various brass rings. It was ultimately unfulfilling. The opportunity that I came into with this, with understanding where the world is going, is to embrace the change and start thinking about consciously how do I want to live into this.

So three things come up. There are just three questions. What are you going to stop doing? There are certain things that no longer serve you in this new context. Which things

are you going to keep doing? Some things we'll just keep doing. But what are those new things? What are the new things that I have to learn or do or all of that.

For me, what came out of that was really understanding that it was my relationships that had been unconsciously truncated, severed, and kept minimalized in the old lifestyle. Now my relationships are vastly expanding, not just human relationships, but, yes, those—let me talk about those.

Community is the most important thing I have in my life at this point in time. The depth of relationships I've formed with people, not just because I think, oh, we might have to really rely on each other—it's not tactical like that. It's saying that being in relationship, right relationship, with the people around me, is something that's really important to me. I'll be honest. I don't think I would have gotten to that if I hadn't walked down this path.

Michael: Yes. Yes.

Chris: It extends further now, because it's now my relationship to all things. I'm of the mind now that human consciousness is an extraordinary thing. Consciousness itself is an extraordinary thing. I understand the dim outlines of the idea that we're all co-creators of what's happening around us at all moments in time.

For this brief chunk, slice of time that I'm here in this physical form, I have an important role. Everybody has an important role. This awareness that I talk about in the crash course, for myself and for other people, has turned out to be a wakeup call into saying, wait a minute, what are my gifts, and how do I want to bring these into the world?

How am I really going to show up? The world needs me to show up, but also it's our birthright to really show up. I think that's why we're here. Yes, it takes on a little bit of this larger piece that actually frankly is exciting to me and has been invigorating. I'm in better shape in many ways, emotionally, spiritually, physically, than I was before I started down this path. It has been 10 years.

To me that's the positive side of this. I'm not trying to sell people and say if you do this your life gets rosy like that. But there is something here that for a lot of people I think we can clearly state, even if we just did it by the numbers. Tell me about the levels of obesity, psychoactive drug use. How many people are on antidepressants? Talk to me about school shootings, prison populations.

These markers, we might say, collectively point to the idea that we're not really happy and fulfilled, or at least we're not satisfied and content. There's an opportunity here to really get that prosperity for ourselves, which is no longer just about money. In that circle of prosperity, we're going to put other things now.

Are you healthy? Are you happy? Are you satisfied? Do you have good relationships? Do you live in a peaceful, secure environment?

Michael: What's your legacy? One of the things I find that's such a blessing, such a gift of this awakening, this awareness, is that it clarifies like a laser focus that my life isn't just about consuming. My life isn't just about pursuing my own pleasure or my own wealth or my own comfort.

My life is about being a blessing to the future, that ultimately, of all the tens of thousands of things that give my life meaning over the course of my life, the final meaning of my life is my legacy. I no longer sort of ignore that, my legacy. What am I here to contribute? How can I make the biggest difference for the planet and the future in my lifetime is now front and center. That's for me the greatest gift of all.

Chris: I agree. Absolutely. I think people know—there's a lot of data we could point to. People understand that money and happiness correlate for about the first \$10,000 or \$20,000, and then they part ways. Some of the most unhappy people I know about, some of the most afraid people I know about, are actually very wealthy people.

They have attached their entire sense of self to their pile of money. If the money goes away, then the self goes away. They're very scared of seeing it all go away. I look at that and I say they're fabulously gifted in that they have this wealth and they're fabulously cursed in that they have this wealth. It's time to separate from those and say that wealth can still do a lot of good.

In my framework I understand that we're still printing money like crazy, but the amount of stuff you can buy with it is starting to fall off. That's the realness against the fakeness. History is very clear on this Michael. We've seen this story many times. When money printing and the real things get too far apart, there's a corrective moment, and it's the money that goes away. It's not the real stuff. It catches up.

We saw that in Weimar, Germany and dozens of other examples. This is just what happens. It's a wealth transfer. Part of my message to people who have wealth, really everybody's biggest asset ever is time. We still have time in this story to do the right things. But as well we can look at the trajectories we're on and say, but the windows are closing.

We'll still be able to do stuff in 10 years, but the range of options will be a lot smaller, and things like that. I really feel like if you get this story, now is a really good time to begin to apply your talents, apply your wealth, and use them in ways that really benefit not just your own portfolio, but the larger world around you. That to me is an exciting and worthy sort of a challenge. That is worthy.

Michael: Yes. Amen. The whole them of this particular conversation series is the future is calling us to greatness. It's really an invitation to invite a larger pool of people to have a sacred relationship to time, to value the sacrifices and the contributions and the suffering that past generations underwent and that we wouldn't even be alive. We wouldn't even be having this conversation if they hadn't.

To hold that in our hearts and allow that to motivate us to be a similar blessing to the future, to be a contribution in a way that future generations could look back and with deep gratitude. I'm wondering, in the face of some really scary stuff, a lot of what we've been talking about, what inspires you? What wakes you up on a day-by-day basis to continue this work that you're doing?

Chris: That's a great question. First, I do feel—I just get up because I have a sense of urgency that this is what I'm supposed to be doing. I'm very fortunate that this is my livelihood. It turns out that if somebody said, "I'll give you one word to describe yourself," I would have to say translator. What I do is I take complicated things—or maybe it's even transmitter.

I can translate them in a way that people can receive them. That's my gift. I feel so fortunate to have found that gift. That gift may shift. In 10 years I might be doing something else and have discovered something else that really motivates and inspires me. But for now, that's it. I love being in relationship with people and helping other people gain that awareness of where we are in the story and then watch them figure out how they're going to respond to that.

I don't have the answers for them, and I'm never directive or prescriptive, you should do this, that. But I love watching what people do, because it's always a surprise. People do amazing things. I love just having my own small part in that. I love interacting with the other people who are actually on this conscious level who are thinking about things.

If somebody says, "Who do you really like to spend time with?" Somebody who is passionate. I really don't care. It could be anything. Something I'm totally not in relationship with. NASCAR. Not my thing. But if somebody is really in it and gets it, that's what's important to me. A judgment I have about our society is I meet a whole lot of people who are not in their passion.

They're just living their lives. Really, they're sort of passing time. They're very numb. It's helping to be part of that awakening, because it's just magic when people wake up out of a life path that's not their calling and start to navigate towards whatever that calling is, knowing those callings change as we go through life. That's totally fine.

That's what I love. I love being part of something that feels creative. I'm in a creative flow, and I'm with other people who are creating. That's why I like doing what I do.

Michael: Yes. Yes. Well, what you're reminding me of is an exercise that I've used with groups for the last however many years, 15 years probably, where I invite people to take a piece of paper and draw a line down the middle and on the left hand side list all the activities, the projects, the things that you love to do that light you up, that give you joy, that give you a sense of energy and passion, things that you're good at, things that other people tell you that you're good at, et cetera. List all that stuff.

At the top of that, you put "My great joy." On the right hand side, list all the things that you're aware of in your community or in the world or you know the future needs, and you list all those things. It's not just what you intellectually know is needed. Where does it hit you? Where do you feel the compassion, anger, frustration, but especially compassion?

Where does your heart just break over something that's happening in your community or in the world or what you can see we're leaving to the future? You list all that. Then when you've got your two lists, "My great joy" and "The world's great needs," then you just pay attention to your heart. You don't even have to call it prayer or meditation if you don't want to.

But when you pay attention to this part of your body, there's wisdom. It's not a surprise that virtually every culture, spiritual tradition, is talk about going to the heart, checking in with the heart, Christian speak about asking Jesus into your heart. There's all this heart focus, that if we attend to what this part of our body is telling us, there are often insights that come, as well as our gut.

So what you're trying to do basically is sort of play mix and match. Where are the intersections between what lights you up, what gives you joy, what gives you energy and what the world's needs are or your community's needs as you feel them, and the future's needs? I say that that's your calling. That's your mission. That's your vocation.

That's where you can be—Joseph Campbell called it follow your bliss. I think of it as follow your bliss bless. That is what your bliss is that's consequently also a blessing to others and a blessing to the future. To my mind, there's frankly no more important place to be, because then no matter how wealthy or simple you live, you experience wealth beyond measure, because you know that your legacy is being fulfilled.

You know that you're making a difference for others in a way that actually nourishes you at the same time. It allows people to deal with some of these big scary things, peak oil, climate change—we didn't even talk about climate change yet—over population, species extinction, the growing gap between the rich and the poor, and all this really scary stuff without being overwhelmed by depression and overwhelm.

But it allows us to play whatever little role we can in a way that's blessing to us. In fact, I wanted to ask you, who are some of the people, if you'd be willing to share, who are some of the other authors or websites—where do you get nourished on either a daily or weekly or monthly basis, or just maybe at one time?

But who are the people alive today, or perhaps dead, but you find their writings particularly nourishing—what nourishes you in terms of where do you go to for that sort of nourishment?

Chris: Oh, great question. One of my greatest sources of nourishment is just constantly learning and figuring out new things. I'm really eclectic. I'm constantly seeking out new paths. I have a big quadrant that I explore into, which I'll call science. I just love finding out the latest science discoveries, because it's startling what we're discovering.

Some of those could be physics experiments, particularly physics experiments that really call into question profoundly this thing we call reality. Physicists have run experiments now where they can change the behavior of particles in the past, and it has been proven. That calls some things into question a little bit.

I love those sorts of things, because they just light me up in a curiosity sense. Then I'm also on a personal path of growth, and there I find lots of different teachers. For me, it's really a process of what works best for me to find out how to go inward. I truly believe everybody has access to whatever term you want to put to it, the infinite, the creative, the divine, whatever word works for you.

All major religions point to the idea that it's within us. I have my own path of trying to figure out how to go deeper within. I'm at that stage of life where I'm really trying to figure out how to become of greater service to the world. It's not anymore for me about gaining new skills. It's about dropping old behaviors that don't serve me anymore.

It's really about a process of losing, not gaining, if that makes sense. Those are the areas I go into. Really, I could list a huge number of authors and people and whatnot. My last area that I spend a lot of time in is just trying to understand what's really happening in the world. You're talking to somebody who fully believes that the mainstream media commits sins of omission and commission constantly, that honestly by reading certain news sources you become less informed, not more, over time.

There's a very concerted effort out there to paint a narrative that I no longer comports with reality at all. That's causing people a lot of anxiety. You're being told this. You're experiencing that. That gap is really uncomfortable. I spend a lot of time, though, in that space trying to understand who is telling me what and why, and it's kind of a game for me at this point.

I used to get angry about it. Now I just kind of go—sometimes it’s literally overt acts of propaganda. I get to sort of detangle those and understand what they are. But I’m very curious about what’s really happening. That takes a whole lot of inquiry. That’s what sort of keeps me going intellectually around all of that.

Then the final area is physically I’ve found that in my life I really have to keep physically active. I love new challenging things. In the past couple of months it has been tango. I never danced. I’m not a dancer. But I thought, well, this will push my buttons, right? That’s a little edgy. So I’m learning tango.

Michael: That’s great.

Chris: It’s a fabulous dance form, by the way.

Michael: I completely agree. I have very limited experience there, almost none. But Connie, my wife, does quite a tango, and she dances other forms as well. We had talked about the possibility that the next time that we’re in a place for three or four months, which we occasionally get to do—somebody offers us a second home or vacation home where we can stay put for a few months and have the place to ourselves—that I’ll do some tango lessons with her, because I’d like to get much better at that.

Chris: Fantastic.

Michael: Well, Chris, just beginning to wind down here. One of the questions that Connie has invited me to ask all my guests—it’s a little off the wall, but I think you’ll find it fun. The responses that I’ve been getting have just been amazing.

If you had the opportunity to either have a one on one experience, like go for a hike or over a beer or glass of wine or a cup of coffee or whatever, or a meal, or a dinner party where any three people in human history could come and it would be the three of them and you at a dinner party or in a one on one kind of setting, who would those three people be? Why would you choose them?

Chris: Well, these are going to be fairly obvious answers, but maybe the connection between them, it won’t be entirely obvious. But it would be Albert Einstein and Karl Jung and probably Herbie Hancock. The reason for that is that in their writings, each one of these people has said that they were not the creator of their great works, that they were the vessel or portal through which these things came.

They all talked about this idea that they were tapped into something that was much larger and more intelligent than they were, that they were really the portal. I’m fascinated

by that idea. I would want to know what practices—did you just have this gift? Or how did it emerge? Where did these things come from? What do you think this really means?

You have a scientist, a psychoanalyst, and a musician, but all of them had that one thread, which was humans are incredible sources and portals for creativity and greatness, but it comes from a place that you have to find a way to allow that to emerge. I think that's everybody's invitation, if not maybe a little challenge, in life, is to figure out how do you really let your true self, your authentic self, emerge and come through.

I think that's what they were all speaking to. But I'd want to get them around a table and find out if I heard that right or misinterpreted some.

Michael: Yes, well, I'd like to be in on that conversation if I could get an invite as well. Well, Chris, talk to us just in closing about peak prosperity. Tell us about your website, about the different levels, ways that people can participate, and go more deeply into your work.

Chris: Absolutely. Peak Prosperity is the website, peakprosperity.com. It has a sister site called Resilient Life. There we're handling two separate conversations. The Resilient Life, to start there, people often say, "I see this new thing coming. This world, the future, is going to be different. What do I do?"

They have very specific questions around, "How would I insulate my home differently? What's permaculture all about? What do you think about backyard chickens?" We have groups that are starting to assemble there that are either geographical in orientation—so Austin is a group—or horizontal. There's a chicken group, a gardening group, so on.

That's one part. Then the other part is Peak Prosperity, and there we're spending a little bit more time focused on really what's happening in the world, what's transpiring, trying to keep track of where we are in this story. We have a variety of writers who write articles. Most of it's free. We have a subscription side as well for people who want to go a little deeper.

Just a very wonderful, very safe community. We moderate the heck out of it so that we don't have what I think is all too common on the Internet, which is a bunch of junk. You have to scroll past a long of angry flammers, and sometimes you get outright propaganda. The PR firms come in and pretend they're people.

So we filter all of that out and just have real people having real conversations and make people adhere to this idea of let's have a fact based conversation. Have assertions and opinions if you want, but label them as such. We're going to keep the beliefs out of this. Just what do we know factually.

We're discussing Ebola, what does it really mean at this point in time. We're discussing the global slowdown that's happening in the world economy right now. We're discussing what the emotional impact is of living in this world today where we have lots of ways to become disconnected through our thumbs on our smart phones and all of that, and that has an advantage and a benefit, and it has a disadvantage as well.

We're really sort of going through that whole conversation. That's what Peak Prosperity is. It's a community of people who are curious, interested in the facts as they stand, and really want to know how to make the most of themselves in whatever future comes.

Michael: That's great. You downplayed the subscription side of it and said a lot of it is available for free. But what would be the advantage of the subscription side of it?

Chris: Well, there we do go a lot deeper. I might write something sort of topical about what's happening in Ukraine or in the global slowdown or around what happened in Fukushima or anything like that. But then I go a lot deeper personally into that and really go through the data as much as I understand it.

There I'm really sort of people's personal information scout, because this is what I do. This is my passion. I spend pretty much all day trying to figure out what's going on in the world, and then I share that. We have other writers who perform that same service. The subscription side is really for people who understand that information is the new money.

Having information collated and digested, so that you can take it in quickly. A lot of our people are very busy in their lives. They're doctors, they're lawyers, they're whoever, and so what they appreciate on the subscription side is having somebody they trust distill the information for them in an unbiased way, so that they can understand it quickly.

Michael: That's great. Well, Chris, this has been fabulous. I'm so glad we had this conversation. Like I say, it has been about a year or longer since I first experienced the crash course. I have purchased numerous copies and given them out and given the link. I knew when I was doing this series, *The Future is Calling Us to Greatness*, that I definitely had to have your voice represented. This has been wonderful. Any last things you'd like to say?

Chris: Well, the whole crash course is being redone in video. It's done, but we've probably released about half of it at this point in time. So there are all new videos, and the other half will be released on a weekly schedule. There's a special thing called the accelerated crash course. If people find the accelerated crash course, that's all brand new.

We've distilled it down to the tightest story we know how to give. If they want to start there, I would advise that. If they know somebody they would like to share it with, that's a

great place to start. The other one is a much longer commitment. It's a lot of information, because we go through all sorts of what is money, what is money creation.

Talk to me about energy. Where are we in the energy story? Shale, oil, lots. So we've taken all that and put it down into the smallest package we know how. We're getting good response from that. The accelerated crash course. Just Google it. You'll find it. It's free. It's out there as well. We're interested in just having that go as far and as wide as we can. We make it as easily and freely available as we can.

Michael: That's great. Just one personal question. Do you have any kids or grandkids?

Chris: I have three kids, 20, 16, and 14. That's girl, boy, girl. They're all just up and out and emerging into the world as adults and young adults.

Michael: Wow, your three are almost identically the same age and the same gender, except 10 years apart. Mine are—I've got a 31-year-old daughter, a 29-year-old son, and a 24-year-old daughter. They are the future. They are the embodiment, and my granddaughter, who is now four years old. I keep a little picture of her by my computer. They are the embodiment of the future calling me to greatness.

Chris: Absolutely. Absolutely. By the way, if I could just say, my kids are so much more emotionally advanced and aware of the world than I was. It's astonishing. They do. They give me hope, because they really see the world much more clearly than I did at that age. I think that's, as a quick aside, one of the things that scares the powers that be right now, is the fact that mass media is losing its appeal.

These younger people aren't reading newspapers in the same way or consuming mass news anymore. You look at the demographics on who Fox News talks to, or PBS, or any of them, or any newspaper, and the demographics are just aging. Where are the young people? Well, they're out getting their information in a whole new way.

Information is the new power, the new money. That's a wide open, uncertain field right now as far as the powers that be and trying to get a common narrative out. Young people surprise me all the time, Michael, with how much they know about where we really are in this story. There is a generation gap brewing here.

If I could summarize it, it's that the boomers, of which I'm one, have everything to lose if the status quo isn't preserved. The young people look at it and say, "We have nothing to gain by preserving the status quo." There needs to be a conversation about this. I don't see that conversation really happening yet.

So that's another thing. I'm trying to figure out how to get that started, because we've got to start talking about it.

Michael: Amen, brother. I'm with you on that one. Well, again, Chris, thank you so much. Blessings on your life, your work, your ministry. I look forward to—what part of the country do you live, because Connie and I are constantly traveling North America. The next week, for example, we're going to be getting together with John Michael Greer and Sarah.

This year we're on the great march for climate action, so we're going from Los Angeles to DC, and we end up in DC, so that's where we'll be going through, [Inaudible 1:01:18]. What part of the world do you live in, because I'd love to get together for a cup of coffee or whatever when we're in your region.

Chris: Yes, I live in western Massachusetts, so just north of Amherst. You've got five colleges there.

Michael: Oh, cool. Yes. Yes, my first church was in Granville, Massachusetts. I love western Massachusetts.

Chris: Great, so that's where I'm at. Just absolutely, any time you're even close, just give a call or drop an email, and we'll get together.

Michael: I'll do it. Okay, Chris. Thank you so much.

Chris: My pleasure.

Michael: Bye bye.

