The Future Is Calling Us to Greatness

with Michael Dowd + 56 Experts

Project Drawdown

with **Amanda Joy Ravenhill**

Big ideas from this session:

- Why the Drawdown Project may be the single most important project on Earth
- Her TEDx talk on the business of nature evolving and the evolving nature of business
- The Hero Hatchery, 350.org, and sustainable business schools

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Michael: Amanda, thank you so much for being part of this conversation series, The Future is Calling Us to Greatness.

Amanda: Thanks for having me.

Michael: I must confess that until last week when I was researching Paul Hawken for my interview with him and learned about Project Drawdown, I was unfamiliar with you and your work. Since then, I've watched your Ted Talk your TEDx talk and I have been all over your site and just was terribly excited to invite you to this. One of the things I've been doing at the start is just asking all my guests to help us get who you are.

Introduce yourself. Don't be bashful. Help us understand both how you got to be here you are, but also what you're best known for and what you're proudest of in terms of your own commitments.

Amanda: Excellent. Thank you. I guess I will start at the beginning. My parents are anthropologists and I was lucky enough to grow up around the world with them. They call people like me third culture kids. I have my first culture, which is my parent's culture, my passport country and second cultures in which I grew up and then when I returned to my first culture, it's as though I could see it as a third culture.

I can see from an outside perspective. We've been studying third culture kids and we're more open minded, out-of-the-box thinkers. That's a big part of my identity. Another big part of my identity is Buckminster Fuller, so I learned about him when was attending Presidio

Graduate School as a student [inaudible 2:00] teach there. Actually, you'll see his map behind me.

Michael: Yes, I do.

Amanda: His influence has just really made me align with putting 100% of humanity first and really looking at how can we make the world work for 100% of humanity in the shortest possible time through spontaneous collaboration without ecological offense or disadvantage to anyone. That was his mission for his world game and I've adopted that as my own life's mission.

Michael: That's great.

Amanda: A background in international development combined with that, has really led me to focus very singularly on climate change and how the world can use climate change as this rallying cry to transform a lot of our systems, but we can get into that a little later.

Michael: Sure.

Amanda: I went to Presidio Graduate School and now teach there. I'm living in the Bay Area her in San Francisco and I cofounded a new non-profit with Paul Hawken, called Project Drawdown. I'm the executive director of that and also involved in all sorts of other fun side projects.

Michael: Yeah, I actually want to hear a little bit about your side projects because I know the Hero Hatcher sounded fascinating and I understand you and your husband cofounded and do that. Let's start with – I'd love to hear more because really – David McConville, who I understand you just had lunch with the other day, is one of my dear friends and colleagues, of course, is the chair of the board of the Buckminster Fuller Institute.

He often will use that quote. To hear that that's a sense of mission, a mission statement for yourself is very exciting. Say a little bit more about how Bucky has inspired you and influenced the work that you're now doing.

Amanda: Yeah. Bucky called for, what he coined as, the design [inaudible 4:05] revolution. It's a particular way of looking at sustainability that's really about designing the right parameters around humanity so that spontaneous cooperation or collaboration can happen. I really love the idea that you can create the conditions for people to be able to see for themselves and be able to spontaneously join this movement and see what the future can hold and be more hopeful.

Michael: Yeah, well that design piece, I'm embarrassed to say actually, that I really haven't had a major spokesperson on that. I would've love to have had Bill McDonough as part of this series, but he was just too busy. Designing our structures, designing our systems, designing our economics, designing governance such that our natures, that our instincts, move us in the right direction so that the cheaper, easier, more convenient thing to do is the right thing to do – integrating true cost.

There are so many aspects of the design issue that when things are designed poorly, good people become dangerous and great people can engage in great evil because the systems that they're a part of are designed in ways that make it effortless to move down that direction. Say a little bit more please, about both Bucky's sense of that and also what your work is leading in that direction.

Amanda: Bucky's kind of art was called comprehensive anticipatory design science. It's really incorporating the comprehensiveness of systems thinking, which is very prevalent in this moment, and anticipatory thinking, thinking ahead and then the blending of design science I think is really interesting, looking at design thinking and a couple of these more design centered frameworks have been becoming more popular.

Then the science piece, I think, is not being translated as well. That's a big part of what we're doing at Project Drawdown is taking the academia literature and all the great science that's being done around climate and specifically around the solutions and translating that into something that the general public can understand and get excited about.

We're looking at 100 different climate solutions and looking across a diverse spectrum, not only just the technological solutions of energy and energy efficiency, but also looking at the ecological solutions, a lot of forestry practices and bio char and some other really fun sequestration practices, Then finally, also looking at social solutions.

We're looking at all of these climate solutions and all of the best academia, all the best academia has to offer around them and translating them into this book, database and a digital platform where people can go on and see what the impact will be of each of these solutions over the next 30 years and the goal is to see how quickly we can achieve drawdown, which is the point at which greenhouse gases peak and then start to come back down again.

The concentrations will peak somewhere around, hopefully, not too much higher than 450 and then start to come back down again. That's a new story. Not a lot of people are saying that within the climate movement and I think it gives people an incredible sense of possibility and relief to know that it's not [inaudible 7:54] that 450 or 500 parts per million, which is just not a stable world and we're already not stable at 400, but to have this goal of drawdown and really bringing that science piece in.

Michael: Okay. For those of you who are watching or listening to this, we've got some bandwidth issues, so when Amanda is speaking, I'll be turning my video off and then coming back on when I ask a question, but we may end up dropping a few times and I sincerely apologize for that. Please, continue.

Amanda: Okay. I was saying that project drawdown is really about translating the best in climate science, specifically around the solutions, to more general public. There are some really exciting reports that are being done about what is already happening in, what we call, the three R's of climate change solutions. We have to replace our current energy infrastructure. We have to reduce the amount of energy and throughput, material resources going through society and then we have to restore soil carbon and biomass carbon.

Those are the three R's that we're looking at. We're taking each of those solutions and looking at the best available information we have on their, what we call, impact analysis over the next 30 years – financially, ecologically, in terms of climate change and otherwise socially. What is the impact of all these solutions? We're painting this picture of what's already happening, the solutions that we already have available. If they're scaled as fast as we know how to do it in the next 30 years, how fast can we achieve drawdown?

Drawdown is this point at which greenhouse gases peak and then begin to decline and then temperatures will soon follow and it's possible that within my lifetime temperatures will come down again. We don't know. We haven't run the full numbers yet, but that's a great new story and it gives me a lot of hope just to know that, yes, things will get worse and the climate is going to continue to become unstable in the coming decades, but knowing that it can stabilize again and really come down to safe levels again just gives me so much more peace when thinking about the future.

Michael: Yeah, I couldn't agree more. My experience just reading your site – I was on for about an hour and a half, I just read everything, all the ages – and then in talking with Paul, frankly, I told Connie when I get off the phone with Paul that this is the single most exciting thing happening on the planet, in my opinion. There's lots of good stuff happening. Could you say a little bit more? Take each of the three R's and just talk a little bit about that. Yeah, let's start there.

Amanda: Replace, that's the typical climate solution you hear about, very important, solar and wind, geothermal, just moving away from fossil fuels to renewable energies and biomass energy as well. That's a little – has a lot f airtime already. People understand that.

Reducing, you have the efficiency measures that people hear about a lot too, but there's also reduction in material throughput through society, where we're including sharing economy within there, really changing people's behaviors and then also looking at population, curbing population

growth and boosting reproductive rights for women. We're looking at free solutions that do that, girls education, family planning and improved access to child healthcare.

Michael: One of my guests – I forget who it was, it might have been Lierre Keith – said that the most important thing that you can do to reduce population is to teach girls to read.

Amanda: Mm-hmm. Yeah, it's an incredible [Inaudible 11:57], speaking of Buckminster Fuller. Girl's education is incredible trim tab and it's one of the solutions – we're studying how all of these solutions actually offer these cascading beneficial impacts. They have secondary and tertiary benefits that come along, so girl's education boosts reproductive rights and curbs population, but it also, for every single year of primary school that a girl has, her eventual wages are boosted by 15% to 20%.

There are just incredible benefits like that. Clean cook stoves is another reduction. It could also be seen as replacement of dirty fuel, but it causes black carbon, which has immediate warming effects on the world, but also that black carbon for everyone who's inside breathing over a three-stone fire, it's like smoking two packs of cigarettes a day.

Michael: Oh, wow.

Amanda: That's how much soot you're putting into your lungs and there are two billion people around the world right now who are cooking over, what they call, three-stone fires. As we change over to clean cook stoves, you're preventing these, mostly, children and women who are in the kitchen from the equivalent of two packs of cigarettes a day. Pneumonia is the number one leading cause of death for children around the world.

You can solve climate change and then also improve the health of children. There are all these benefits like that from each of the solutions we're looking at. We like to say that climate change is a transformation that transforms everything. It's this rallying cry. We have only a couple decades to really figure it out here, but in the process, we can figure out so many of the other things that are going awry.

Michael: Yeah. The phrase that climate change is the thing that changes everything reminds me of a book. I just read Naomi Klein's new book, *This Changes Everything*, and she makes that same point. Now, what was the third R?

Amanda: The third is restore and that's my pet favorite. I have been really interested in bio char and involved in that.

Michael: For people who aren't familiar with bio char, tell us about that.

Amanda: Yeah. Bio char is, essentially, charcoal that you put in your soil and it boosts your crop productivity and reduces the need for water and is essentially pure carbon. It's a really effective way of putting carbon out of the atmosphere and into the soil where it can be productive. Essentially, it's like a small sponge for soil. A gram of carbon, the size of the tip of my pinky here, can have up to 3,000 square of surface area.

As you know, soil is best when it's alive and it's thriving and all the little microorganisms and stuff really appreciate that bio char to live in it. We're looking at bio char and a couple other solutions. I think we have about 12 now within the restore realm. That's really where we can actually bring down the carbon. Everything else is reducing and getting to a stable level, but [inaudible 15:10] is really the only place where we know how to reduce from the atmosphere and come back down to safe levels.

Michael: I don't remember seeing that much emphasis on the more high-tech, global, geo engineering kinds of things and I was grateful for that. Say a little bit more about some of the – how do we build soil? How do we take carbon and bring it into the soil? Obviously, planting trees, a moratorium on cutting trees or something like that – I don't know if that's your solution, but that would be something that immediately comes to mind is value the parts of nature that already do that and promote that.

Amanda: Yeah. Yeah, exactly. It's pretty simple. The atmosphere has too much carbon. If you're looking at stocks and flows, the atmosphere has too much carbon and the bio mass layer and soil carbon layer have been losing carbon. It's letting photosynthesis work and bringing that carbon down into the bio mass layer. Then, somehow, pressing pause on that carbon cycle and keeping that carbon either in that biomass or soil layer.

We're looking at all sorts of avoided deforestation practices and aforestation and all kinds of carbon farming practices including bio char and no till farming and perennial farming and rotational grazing. That's a really [inaudible 16:34].

Michael: Yeah. One of the books that we just listened to just maybe two weeks ago was *The Soil Will Save Us*, I think. There were many times throughout that book that I thought, "Wow, I didn't know that."

Amanda: Yeah. It's really fun stuff to learn. Right now, we're operating in this old paradigm of dirt is inert, in that we can just add this NPK fertilizer [inaudible 16:59] to the plants. We're losing our soil carbon at alarming rates. I think once we transfer over to, "Oh my gosh, soil is alive and can thrive and can be the source of all life as it is," if we really respect it and farm in a different way, we can bring down the carbon from the atmosphere, but then also create healthier farms and healthier communities in the process.

Michael: Yeah, amen. One of the things – I often speak to religious audiences. I've spoken to some 2,000 groups over the last 12 years and when I speak in churches, one of the things I'll often say is that our relationship to the soil is our relationship to God.

The idea that we can have some kind of a personal or healthy relationship to God as a supreme being outside the universe and not have a healthy relationship to the soil should be considered blasphemy as far as I'm concerned. Say a little bit more about – you mentioned financial, ecological and social approaches. Say a little bit more about each of those, if you would.

Amanda: That's actually the impact that we're looking at, each of them, but we are looking – I think you might be referring to the social, technological and ecological.

Michael: Oh, okay. Okay.

Amanda: The technological, like I said, are the energy solutions and then the social, looking at different ways we can look at behavior change, so low carbon diet is a really great solution. Within all of these solutions, we're not – we're doing something a bit different. Instead of saying, "It's just top down and it's something that the utilities can do," or just saying, "Here are 100 ways you can save the Earth at home," we're really trying to broaden and look at all levels of agency, we call it.

Basically, all the different places where an individual has the choice, but maybe it's because they're a building manager and so there are a lot of building solutions or maybe it's because they lobby to their city government, so there's a lot of city solutions like that. It's looking at solution with a individual, community, city, building, business and land and utility as well.

That agency, I think, is really important to know that there's this diversity of the solutions out there and that it does come down to the individual, but the individual actually has a lot of choice and it's not just over your household. People can get involved at different levels.

Michael: That's great. If you could also say a little bit about just the design of the *Project Drawdown* book and website because I think – we were talking earlier about design and how design matters. I found the design to be very attractive and very empowering, so say a little bit about that, if you would.

Amanda: Yeah. Yeah, that's appurtenant to what we're doing is really making it approachable and beautiful, something that people want to go in and play around with. I think there's been a lot of great work done around climate that makes people feel very scared and [inaudible 20:07] important.

I think it's really crucial that we have that urgency, but I think it's also really nice to have a place where you can feel a little bit playful. In neuroscience, they say that play is actually the only time where uncertainty is rewarded and celebrated. We're really trying to go for more of this playful –

Michael: That's interesting.

Amanda: – yeah. In almost every other state, uncertainly is something you do not want, but when you're in play you're like, "I don't know what's going to happen." Have fun. We're trying to bring that vibe to the project so people can be in that state of more openness and creativity and thinking long term while probably still having the urgency that a lot of other groups are doing very well within the climate space.

We're not trying to say that that's not necessary, but that it can be balanced and we can work together in order to empower people to action.

Michael: Yeah, I often think about it in an embodies sense, that different organs are playing different roles in the body of life and all are needed for the health of the body. Certainly, waking people up with a sense of urgency and a sense of the timeliness of it is vital, but for those of us who are awake, so often, we can slip into despair and depression and overwhelm and just fear and that doesn't help either.

That's why it seems to me vital to have these positive, solution-oriented approaches such as Project Drawdown. Even just the concept of drawdown, just the meme itself helps people to have a way of holding onto something that, as you said, it provides a sense of hope. It provides a sense that there is some way forward. It doesn't mean Pollyanna it. It doesn't mean we're going to avoid difficulties and significant difficulties but that we can look forward to, or at least, look forward to the possibility that we can move through this and ultimately humanity can come into a better relationship with the natural world than we currently are in, which obviously, we need.

Amanda: Yeah. Yeah, I think that's a really important point. As I'm speaking to people, it shifts the way you're thinking about the future. You're like, "Oh." Well, everyone knows it's getting worse and a lot of people are saying, "This is just the new normal. Climate changed. Extreme weather is just here now." I think if we all know that it only has to be this way for a couple cades, it makes you think about things completely differently.

You're like, "Okay, let's hunker down and let's get through this and, in the process, let's use this as this transformation that transforms everything and really get our act together and then we can come out the other end and celebrate and be the humanity that we've always wanted to be."

Michael: Yeah, well it's certainly and inspiring vision. We're not going to have any shortage of challenges. I recently read a study that suggested that even if all of humanity were wiped out in the next 48 hours by some virus, that just already what's in the system, that it's likely that the seas will rise for the next 1,000 years and become somewhat more acidified than they currently are.

We're going to have, certainly, no challenges for moving our cities backing off from the oceans, but I think you're right. For us to be able to see within this century, within possibly our lifetimes that we've peaked and that every year we're producing less and less emissions and making significant progress and in a way that's uniting humanity to cooperate at larger scale than we would've otherwise, then there is some sense of hope in the face of some real challenges.

Amanda: The big difference with our vision and some of the IPCC models or International Energy Agency Models that are out there is really the drawdown act. There's the noun, the point at which we come back down, but the verb of drawing down carbon using these, what we call them, restore piece of the three-legged stool, they have not really been included in a lot of the models to the degree in which we're including them and that's possible.

What happens when you draw carbon out of the atmosphere is that that carbon is also then drawn back out of the ocean. The ocean will equilibrize with the atmosphere. That's pretty much the only way we know how to prevent the oceans from acidifying is actually by taking it into the ground. We're really excited about that piece of our model because it's unique. There's no one else really pushing and saying, "This is actually how fast we can grow these different technologies, ecological technologies."

Michael: I'm an evangelist. That's what I do. I've been called America's evolutionary evangelist and I've popularized the sacred side of science. You can bet that I will be evangelizing this drawdown concept and this project. I remember being inspired when I had my interview with Paul Gilding because the second half of his book, the great disruption, covers what he calls the one degree Celsius war plan.

He thinks that we will not be satisfied. We will not be willing to accept merely two degrees and, of course, there has to be a drawdown component there. Well, Amanda, one of the things I was inspired by is – shifting topic a little bit, obviously related is – your TEDx talk, recently, that you gave in Tokyo was on the evolution of business and our ways of thinking about business and that sort of thing. Say a little bit about some of the main points you made in there and how that's relevant to this conversation and this theme of the future calling us to greatness.

Amanda: I had a really good time preparing for that talk.

Michael: Let me interrupt. That was obvious. That was a well prepared – the fact that you were able to talk at such a pace – I guess you were in Tokyo also, but there was just a slowness. There was no rush. I delivered two TEDx talks myself and I know that – even though I've spoken to thousands of audiences, I was more nervous at those two TEDx talks than anything else I've ever done. I thought you were fabulous. Anybody watching or listening to this conversation, please take the time to watch Amanda's TEDx talk. Continue.

Amanda: Thank you, yeah. I'm very inspired by the work of Janine Benyus. She's actually on our board at Project Drawdown, so I get to work with her now. She's been studying mutualism quite a bit and so this is a different way of looking at, what I call, the nature of nature. It's really not as competitive a world out there as we tend to think. It's much more cooperative in that there are actually these underground fungal networks that transfer warning signals and water and sugars from plant to plant that are not part of the same species.

We're actually discovering that it's a lot more of – that there's this interdependence that fuels life. It's not commonly seen. Even in forestry schools now, you study the forest and you're like, "Oh, those two trees are competing for sunlight and that's what's going on there." When you really actually expose all the [inaudible 27:42] networks underneath, you see that it's all one ecosystem.

I think that that understanding of interdependence can be utilized within the business realm a lot more and that if we see each other as allies and creating shared value, that we can create – well, Janine says, "Life creates the conditions conducive to life." That's the underlying principle of Earth here. I said, "What if commerce could create the conditions conducive to commerce?" If we can make cents with a C –

Michael: Yeah, duh.

Amanda: – and make sense with an S, we're constantly making both kinds of sense out there and really thinking about the future and working in this more cooperative, instead of competitive way, I think it could change everything.

Michael: Yeah and it gets back to Bucky's concept of spontaneous cooperation an also, even though you didn't mention her name, I was just so grateful that you – and Janine, obviously, as well – furthering the work of one of my just dear friend, colleagues, mentors, really one of my earliest teachers in this whole realm, which is Lynne Margulis7, who just died just a few years ago, the famed microbiologist.

Her work and really helping us move beyond – and some of the world isn't yet beyond it – but move beyond simply that evolution is just all about competition, to see that there's such symbiosis and mutualism that's at the heart of evolution.

Amanda: Like I say in my talk, it's not about the survival of the fittest. It's actually the survival of the fitness within the ecosystem. Darwin himself was actually misquoted there.

Michael: Yes, exactly. Anything else you want to say about that TEDx talk? I just thought the points that you made there were just fabulous.

Amanda: Yeah. Sure, I'll share one of my favorite Buckminster Fuller metaphors, which is the way that I look at where humanity is now, which is by where he looked at it. He said that, "Humanity now is like a chick that is just hatched from its egg shell." We've used up all of our oil, our embryonic fluid, to get us to this point where we're actually capable of doing anything.

It might seem like the sky is falling, like this is the end, because we're just about to crack through and go through this great transformation, but we actually have wings and feet and all this capability that we actually haven't even exercised.

It's uncomfortable because we're done with that embryonic fluid and it's not going to be quite as easy to just suck from this embryonic sack of fossil fuels that we've been surrounded by, but that we can be thankful towards those fossil fuels ad appreciate that they've created us into who we are. We can step outside of this eggshell and stand on two feet and learn to fly.

Michael: Yeah, that's beautiful. The power of a metaphor is just incredible. One of the other metaphors that I've gotten a lot of traction with when I speak to audiences is we've been like a cancer within the body of life that as we've been consuming the body of life for our benefit – but cancer does that, but then if cancer consumes enough of the body it kills the body, but then it dies.

A far more apt metaphor and vision of possibility that is inspiring is humanity becoming like an immune system where we protect and foster and defend the health and the well-being of the larger body of life upon which we depend and of which we are a part. That's a world and the only world in which humanity can truly thrive.

That vision, rather than the vision of helping us to do less bad, which isn't particularly inspiring, the vision of actively participating and becoming like an immune system in the body of life is a vision that, in my experience, you people can get really jazzed about and they do.

Amanda: Yeah. I think that participation is really vital to talk about too. It happens in the chick metaphor too. When the chick is out, it can live in this regenerative existence with the rest of the universe and nature and then you prevent people from thinking that human and nature is separate. I think that's a big part of what's gotten us into this mess. We are actually all one and it is all interdependent.

Michael: Yeah, well my great mentor, Thomas Berry, often talked about that we are the universe becoming conscious of itself and thinking of humanity as separate from above and apart from nature and that the laws of nature and the laws of ecology don't apply to us is purely suicidal. Well, this is fabulous. Say a little bit more about your husband's and your project on the Hero Hatchery.

Amanda: The Hero Hatchery. Along those same lines as the chick metaphor, my husband, [Ryan Kirshner 32:42], and I started the Hero Hatchery last year. The idea is to make more recognizable figures within the climate movement. We went around and we asked hundreds of people, "When you think about climate change, who do you think of?" Most people said Al Gore. Bill McKibben was a far distant second.

Most people didn't even really know. We were thinking back to the Civil Rights era and how we learned about civil rights when we were in school and there were all of these great, iconic figures that really mad it palatable and gave the movement a human voice and a way of understanding.

Michael: And heart and soul.

Amanda: Yeah. Climate change is so hard to understand. It's so esoteric and it's about the future and it's about everything and it's hard for people to actually sink into, so we're uplifting some people within the movement and really focusing now on a price on carbon and people who are working specifically on that. We'll have some really exciting videos coming up an some new fellows for the new year that are working with Citizens' Climate Lobby. [Inaudible 33:58] a partnership with them, which is really excited.

Michael: That's fabulous because Citizens' Climate Lobby is the main thing that I've been evangelizing. When I get to the place in my program – my program is also titled The Future is Calling Us to Greatness, my main evening program is an hour-and-a-half long program – when I get to the place of what can I do? What can we do? I promote Citizens' Climate Lobby and I say, "If you only remember one thing from my entire presentation, join your local chapter of CCL."

I've had people criticize that there are other really important things being done that, perhaps, I shouldn't state it quite that way, but it seems to me until we marshal the power of the market it'll help all of us move in the right direction. I've often quoted Bob Inglis, a republican from South Carolina, when he says, this is a direct quote from him, "I favor a conservative approach that marshals the power of the market and doesn't increase the size of government."

Here it is in a nutshell. Put all the costs in all the fuels and eliminate all the subsidies and then watch the free enterprise system solve the climate and energy problem and just nail it.

Amanda: I really appreciate it. They're only five years old and they have a member in almost every county in the nation. They've done a realy good job, so we're really excited to be partnering with them.

Michael: That's great. Well, Amanda, on this theme of The Future is Calling Us to Greatness, you've already mentioned some things, but anything else you'd like to share in terms of what gives you inspiration to wake up each day in the face of some really scary stuff to do the work that you do?

Amanda: Yeah. I really like the idea that this is the most exciting time to be alive and to know that what we do in the next decade or two will impact the future of life forever.

Michael: Yes, exactly.

Amanda: It's something that's just so exciting and overwhelming, definitely, at times, but that ability to see it as exciting and to see that actually we have the biggest team ever on the job. Fourteen percent of humanity that's ever existed is alive today.

Michael: That's an interesting way to think about it.

Amanda: Yeah and I think we have the biggest team for the biggest job and that idea that climate change can be this transformation and this rallying cry and address these issues that have gone on for centuries just really excites me. I just see we're going through this keyhole, as other people have said. It's just – yeah, it's exciting.

Michael: Yeah, yeah. I agree and part of the reason it's exciting, I find, is that it's a terrifying time to live. It's a scary time and yet this sense that heroes and sheroes are alive today that future generations will look back and call heroes and sheroes because heroes are those who, not only themselves, but inspire others to be a blessing to the future, to be a saving force or a practical inspiration in ways that are blessing to future generations.

I think that's the time we live in. That's why I'm – what I find the work that you're doing, that you and Paul are doing with Project Drawdown and you and your husband are doing as well, is inspiring a whole new generation to look to solutions, to yes, look at the bad news. Look at it squarely. Don't deny it, but ultimately allow that to motivate you to be solution oriented and heroic oriented.

This is a time when we get to do great things and it's all about not just attending to our own wealth, our own comfort, our own pleasures, but really finding ways to do what it takes, including living more simply, including building soil, including all the practical things that your book and project is about, at whatever scale, wherever we are in terms of our own influence.

Amanda: There are lots of ways to get involved with Project Drawdown. A big part of what we're doing is just building a giant coalition. We have hundreds of partners and advisors and volunteers working with us and we actually just launched a fellowship program for people who are interested in going deeper with that climate and financial analysis that we're doing. We're starting that fellowship program in January and I'd love to have people apply and come and be part of our team.

Michael: Say a little bit more about that. If anybody watching this or listening to this that either just inspired by this conversation or then they go onto your website and they get super inspired in addition to this, what would you advise or suggest for them, next steps?

Amanda: Anyone can volunteer with us and help us with the research. We're doing a lot of research on 100 different solutions and need as many eyes and ears on the ground uncovering the best available information on all these solutions. Then the fellowship program is for people, either leaders and practitioners in the field of these different solutions, but also people from academia who can really do the more thorough analysis.

We're opening it up in January. Applications are now open, but it'll be starting in January on a rolling basis. This book is really co-created. It's co-authored and it will be not just a book, but there's [inaudible 39:27] that we're giving away to the communities. Everything that we discover with this research we're going to be giving out in this open source database where people can go in and help us actually make it better.

Michael: That's great.

Amanda: People can build things off of it, curriculum or investment tools or [inaudible 39:50] platforms or community campaigns or policy. The list goes on and on and on. We're really excited to co-create it and then also just co-use it and distribute it afterwards, once it's done next fall, prior to the Paris talks for the U.N. We really hope to infuse this idea of not only are there solutions, but they're being done and it's not an if we can do it.

It's, "Here it is. It's happening." [Inaudible 40:19] projections of LED's and solars have just been totally wrong and we've been doing better than we ever imagined we could.

Michael: That's great. Fabulous. Well, Amanda, this is fabulous. There's one last question that I want to ask and it's sort of off the wall, but I've had so much fun asking

everybody this question and never letting anybody know ahead of time what it is. If you had the opportunity to have dinner with any three people in human history – it's all three of them and you and your husband – or a one on one where you go for a hike or over a glass of wine or a beer or just a cup of coffee or whatever, any three people in history, who would those three people be and why would you choose them?

Amanda: [Inaudible 41:03] an obvious answer. I would love to go on a hike with Buckminster Fuller.

Michael: Yeah, right.

Amanda: And really just see through his eyes what's happening now. I think he saw a lot of what was happening now ahead of time. He was tracking all these exponential growth curves that we're on. He was tracking them in 1950 when they were still [inaudible 41:27]. Yeah, I would just love to hear his perspective of what's going on now and what's needed. He was a very bold man and I get a lot of my energy of being a bold woman from him. I would just love to be able to tap into that in person.

Michael: All right, who are the other two?

Amanda: The other two, Nelson Mandela – I love his compassion and his ability to forgive – and the third, I'm not sure. Who would the third be?

Michael: It could actually be somebody still alive too.

Amanda: Still alive, yeah. I'll go with Rachel Carson, also because of her boldness.

Michael: Beautiful. Beautiful. Great, well all three of those were actually selected by a number of others too, so maybe we should have a larger dinner party. Well Amanda, this has been fabulous. Any last things that you'd like to say on this whole theme that the past is rooting for us and the future is calling us to greatness? Then where, other than Project Drawdown – give us the actual web address and any other resources that you would recommend.

Amanda: Yeah. I think I'd just like to say that things are lot better than they may seem. You have trend lines and headlines and right now there are trend lines of a lot of really great things happening, but you hear these horrible headlines still. I invite people to really look at the more hopeful and exciting things that are happening and root themselves in that possibility. You can find out more about joining the coalition and drawdown.org.

Also, join us at herohatchery.org to learn more about that. For those people looking for further education in this, Presidio Graduate School has some of the best curriculum in the country. We have a couple different certificate programs that you can do if you don't feel

like you have the full bandwidth to do an MBA, but I definitely encourage people to look into that as well.

Michael: That's great. Fabulous. Well Amanda, blessings on your work and your husband's work at every level and thank you for taking the time to be with us and I'm sure we will be in communication again.

Amanda: Excellent. Thanks so much for having me.

Michael: Okay, bye-bye.

Amanda: Bye.