

Inside Stories: An Electrifying Transformation Transcript

Scott Simmie: Hello again. I don't know about you, but I drive a regular internal combustion engine car. In my case, it's a VW Wagon, which actually I really like, but it's a 2010 model and, perhaps like me, starting to show its age a bit. And that got me thinking about electric vehicles, and that got me talking to today's guest. Joining me today is Seth Weintraub, who runs multiple websites, including Electrek.co, and that's trek like if you're out trekking. That website is all about EVs, or electric vehicles, and anything related to that field. Welcome, Seth.

Seth Weintraub: Thanks for having me.

Scott Simmie: Listen, how did you get involved with electric vehicles?

Seth Weintraub: Well, I've always been a little bit on the green side. We own some Priuses. I have some solar on my house. More from an engineering standpoint of efficiency than necessarily trying to save the world. But in 2013, we were deciding that our next car, we were initially deciding between a Nissan Leaf and a Chevy Bolt, and we just happened to walk into a Tesla store in Santa Monica, California. I asked if there was any test drives available, they said not for a month, but the guy who was supposed to test drive didn't show up so they could take me out right away. I went out right away, and I came back changed. I basically said, "All right, we we're going to spend 40 something thousand on our Bolt," talked to my wife, I was like, "Look, this is a seven seat car. It's basically a minivan. It's super fast. It's got all these features that I love. Can we spend a little bit more?" So, at that time, the base model Tesla was 49,000. She was like, "Yeah, let's support American entrepreneurialship and engineering."

Seth Weintraub: We got the car, and obviously, it took a little while to get the car at that point. I think it was like four or five months. And in the meantime, I did a lot of research, decided to invest in Tesla. So, the whole thing just flipped in my head in 2013. Once I got the car, I didn't know some things about the car, and I wanted to talk to people about it and just figure out stuff. And there nothing out there, really. There's a couple electric car sites, but nothing terribly interesting. So, obviously at that point I ran 9to5Mac and a few other websites, I was like, "I know how to do this," so I started Electrek. At first, it was kind of a slog. I was writing for an audience of myself and anybody on my Twitter account. But a couple of years in, I picked up a couple more writers, and particularly Fred Lambert, another Canadian, so we're now, I think, the biggest electric vehicle website on earth, and we're growing quite fast, along with the EV industry and particularly Tesla.

Scott Simmie: I'm curious, when you talk about when you first started, it was like for a very select audience and add your Twitter followers, but without getting into the numbers of your website, how substantial has the growth factor been over the years?

Seth Weintraub: So, we started in 2013, we've more than doubled every year, give or take. Obviously, at the beginning, we were doing more than doubling, and we look to double again this year. So, it's been a logarithmic growth curve for us, and as the EV industry, we expect Tesla to sell a million cars in a few years, and just about every auto maker's releasing real electric cars. There's been compliance cars for years, but we're starting to see some really compelling cars from all the major automakers.

Scott Simmie: You've got a pinned tweet on your Twitter account that goes back seven years, back to that 2013, when you were totally fired up, and it states, "Cars will change more in the next 10 years than they have in the last 100. Almost every car on the street right now will be valueless." Do you still stand by that tweet, and why or why not?

Seth Weintraub: So, I do stand by that tweet. I don't know if the timescale is exactly right, but in 2013, it didn't seem like we were going to do a fundamental shift. And that doesn't just mean electrification,

although that's probably the biggest component, there's electric, solar on houses is a big component of that, so you're basically creating your own electricity, your own fuel, so to speak. But there's also ride sharing, Uber and Lyft and, further down the line, Tesla Network and Waymo, and then there's also autonomous driving, which also includes Waymo and Tesla and everybody else. So, those four things brought together will shift the industry. It'll be kind of weird in a few years to have a car that can't drive can't, can't pull with other cars, or with other people, that runs on gasoline, and it can be charged at your house. So, I feel like if it's not a few years, it'll be a few more years. You know what I mean?

Scott Simmie: As both an owner and someone who runs a website, what do you see as the key advantage for a consumer of owning an electric vehicle?

Seth Weintraub: Well, I mean, it's a big hump to get through. I'm convincing people all the time. I just convinced one of my friends at the coffee shop I go to to buy an electric Chevy Bolt instead of going with a Subaru that he's been... He's on his sixth Subaru. It's a big hurdle to get through mentally at first because you're like, "Well, I just go to the gas station and I fill up." And when you have an electric car, it's actually easier because you just plug in, just like your phone. It would be weird to take your phone to a certain place every week or whatever, two weeks, and spend a few minutes there charging it up. So, it's actually easier because most people don't use the fast chargers, unless they're in a condominium complex or they use street parking or they're going on long trips. So, it's actually easier, but in your mind, it's not. And it's a hard hurdle to jump through, particularly if you're older and you've been doing the same gas thing for so long. So, it's those kinds of hurdles that make it a big jump for people.

Seth Weintraub: People are like, "Well, what if I get stranded?" That's a legitimate concern. The good news is that electricity is everywhere. I mean, everywhere. Whereas, gasoline isn't everywhere. And my feeling is that gasoline is going to be in fewer, fewer places as these gas stations start to lose their revenue share. So, for me, it's like, you got to get your buy-in right, you got to educate people, and education is a big part of what Electrek's about, showing you how easy it is to go electric, how convenient it is. And in the long run, you're saving money, you're saving time, and you have a much better experience.

Scott Simmie: Now, lots of people do like to use their vehicles for travel or taking a big road trip with their family, so for those people who do say, "Oh, man, with a gas internal combustion engine, I can just go and fill up and keep on blowing down the road. But with this, I'm going to have to stop and literally plug in and just wait." How do you convince people that that's okay, or that it's something you just get used to and take it in as part of your travels?

Seth Weintraub: Well, the new generation of cars, so for the cars that were introduced in 2016, and like the Chevy Bolt I mentioned before, you're going to have to spend 30, 40, maybe even up to an hour at a charging station to get four hours of travel time, which is not a huge trade-off, like four hours, you have to go to the bathroom or eat something or whatever anyway. So, it's not like, unless you're doing a cannonball run, it's not really a big deal, for most people. The new Teslas that are coming out and the Porsche Taycan, and a bunch of other stuff from Audi and Mercedes and VW, charge much faster.

Seth Weintraub: So, it's not that much different from gasoline. You stop at one of these chargers, maybe 20 minutes. A Tesla model Y in 15 minutes can get three or four hours of charge, so three or four hours driving of charge. So, it's not different than gasoline, in a big way, because theoretically at a gas station, after four hours of traveling, you're going to want to go to the bathroom. You might want to pick up a snack. You're going to have to pay, do all the transactions. It's becoming unnoticeable, and as charging stations proliferate, and they are proliferating, it's going to be even easier.

Scott Simmie: I have a friend who owns a Tesla and is a huge advocate, and he's often talking about reduced maintenance costs when it comes to electric vehicles versus internal combustion. Is there some

long-term data around on maintenance costs and just how significantly lower they might be with an electric vehicle?

Seth Weintraub: I can't point to anything specific. I would have to look into data, but logically speaking, you've got one moving part, basically the motor spins the wheels. You don't have transmission. You don't have to replace oil. You don't have to... I mean, even brakes, like most of your braking is done with regenerative, you never replace your brakes. In fact, sometimes the car will use the real brakes just to clean off the rush because you haven't used it in weeks. So, there's just so many advantages to the architecture of electric vehicles that push to the side the old paradigm of you have exploding fuel, like you're containing explosions in your car, which cause a lot of vibrations, a lot of noise, a lot of everything. So, it's actually, when you think about it, logically, it's pretty easy to see why maintenance on an EV is going to be a lot less.

Seth Weintraub: I will say, though, that Tesla has had some quality control problems, in particular, and that's theoretically being addressed. I just got a model Y recently, and all the panels were all weird and there was some stains on the inside. It's quality control issues. I feel like quality control issues are one thing, as these other German manufacturers and even American manufacturers get into it, I think that it'll all come together and be way more reliable than a gas car.

Scott Simmie: One of the real selling features of Tesla is the fact that it has so much artificial intelligence built into it. I mean, this ability to autonomously get you to where you need to be going, providing the legislative authorities in effect in that area. Is that something, that AI, is that something that you believe is going to be spreading to other EV manufacturers as they all come on stream?

Seth Weintraub: Yeah. I mean, so Teslas today can't really get you from one place to another. On the highway, you can flip a switch and you could... It's more like you take a mental load off. So, instead of focusing on the road every second, you can reach down and grab a drink or a sandwich and not be too stressed about the car weaving in and out of lanes or whatever. When we go to the next level of driving, I think we're on level two autonomous now, which is the traffic aware cruise control, that'll be more like driving from your house to your work, or whatever, autonomously.

Seth Weintraub: Other automakers are doing the same thing. They're just not as brazen, I guess, about putting that stuff out there publicly until maybe they have a product. I've ridden in GM Super Cruise, I found it to be just as good as Tesla on roads that where GM could go. I've ridden also with a Mercedes version of it, and I found it very, very reliable. Conversely, Tesla is good and it's out there for everybody to use, but I've also had some issues with it where it decided to drive off the road for no apparent reason or break really hard for no reason, and my family thinks it's trying to kill us.

Scott Simmie: I was going to say, that's got to be a little bit disconcerting if all of a sudden the car has a mind of its own. Now, I'm going here secondhand from a friend, but a buddy of mine who drives a Tesla said that Elon Musk stated at some point within the last year that once fully autonomous driving is okay for regulators, that basically he can flip a switch at Tesla and your vehicle could not only drive autonomously, but it could actually work for you at night. So, you're going to bed at night and your Tesla goes down the driveway like a robot Uber, picks up, people delivers them around town, you wake up in the morning with more money in your bank account. Is this realistic? And is it something you think will actually happen in the not so distant future.

Seth Weintraub: So, I do believe that somewhere down the road that will happen. I don't think that's going to be this year or next year. And I know Elon Musk has promised it every year, pretty much, since 2016 or 2017. I think he's doing the industry and Tesla disservice by over promising and under-delivering. I don't know if you know his expectations aren't being met by his workers or the government or whatever, but realistically, you can't do it. The fact that I'm having problems with autopilot today, or last week, means that it's not safe. Even when they do flip that switch and you can go from your house

to your work autonomously, it's not like you can read a book or go to sleep in the backseat. You still have to have your hands on the wheel and everything.

Seth Weintraub: So, it's not fully baked, and I don't think we're going to get there in a flip of a switch. It's going to be, I would say, years of starting to trust the vehicle. Nobody's going to want to sleep in the back of their car while it's driving day one. They're going to have their hands on the wheel for months and months and say, "All right, the car knows what it's doing. We've got a pretty good shot of not dying. Okay. I'll let the car drive." I'm certainly not there yet. If Tesla tomorrow said, "We're letting you do this," I would not let my car drive me to work in the back seat sleeping. So, that's where I'm at.

Scott Simmie: A couple of years ago, I was hired by an engineering firm in California to come down, and they were kind enough to put me up in this amazing house in San Francisco. And best part of all, they had a Tesla X in the driveway and said, "Go for it. You can use this while you're here doing work." And immediately I was blown away by that driving experience and thinking, "Man, I really want one of these vehicles," but at the same token, I thought, "This is way too expensive for me right now." And I think there are other people out there who just simply can't get their head around the fact that these vehicles are more expensive. Now with supply and demand, and you were mentioning more manufacturers coming online, do you think we will see substantial price drops in the not so distant future to the point where we're on par with what we would consider to be the price of an average internal combustion engine vehicle?

Seth Weintraub: Yeah. Well, there's a couple of things. One, you have to consider full ROI. For instance, I just gave up my Chevy Bolt, it was a three year lease. I spent \$0 for fuel on that. My electric company reimburses me if I charge from midnight to 8:00 AM, because basically, energy is free at that point, for them, because they're getting it from Hydro-Quebec or whatever. So, I didn't pay a penny for travel. I have solar panels, as well, so I probably even made some money charging my car. I didn't go to tune-ups, I didn't change my oil, I didn't do any of the things that cost money. So, if you figure all of that savings into the price of the car, I think even today, you're probably breaking even with a model three or a model Y base model, compared to like a BMW 3 series or a high quality car, maybe not a Hyundai or whatever.

Seth Weintraub: And then, down the road, I mean, obviously batteries are getting cheaper, economies of scale are happening with electric vehicles, so I think they're going to be cheaper to buy, own, and run the whole cost, in the very near future. So, even if you don't care about the environment, even if you don't care about global warming or whatever, or the better experience of smoother, quieter, no gas stations, all that aside, it's still going to be less expensive to own an electric vehicle.

Scott Simmie: Now, I live in Ontario in Canada, and here, the province used to subsidize the purchase of what it would call green vehicles, but-

Seth Weintraub: You guys voted for Ford.

Scott Simmie: But we voted for a premier who has drastically cut that subsidy. And I'm not deeply into it enough to know what the answer is, but I'm assuming that this has got to be something to do with protectionist for the traditional automotive industry. I mean, do you see moves like that in the US or elsewhere that have the roots in protecting the system as it is?

Seth Weintraub: Absolutely. I mean, I think the whole Republican Party in the US is funded by the oil industry, which is a \$10 trillion industry that basically goes away if everybody goes electric. And they're not particularly nice people. These are the people that are polluting the earth, their own earth, so they're not going to play good, they're not going to play nice, and they're not going to go away quietly. We know this. So, there's going to be a lot of misinformation out there, there's going to be a lot of bought off politicians, which clearly that's the case. Although, other provinces in Canada, Quebec, British

Columbia, they have really good EV incentives. So, in the US, we have some EV incentives too, because we had a good administration not too long ago. My belief is that EV incentives don't work. What we should do is tax the hell out of gasoline, because that's the problem. That's the big issue. So, if you're paying \$10 a gallon, or equivalent that is in metric, I can't off the top of my head, I think then you get the same end result, which is more people buying Evs.

Scott Simmie: In terms of climate change. I think many would agree that the science does seem to be in, and the science is fairly definitive. Do you believe electric vehicles will have a significant impact on reducing carbon emissions once they're more widely adopted?

Seth Weintraub: Yeah. I mean, it's part of the big picture. So, if everybody's running coal to make their electricity, EVs aren't going to help that much, but they still help a little even if you're almost 100% coal. Yeah. The other piece of the puzzle is moving the grid to become 100% green and sustainable, and that's happening all over the country, North America really. I mean, I think Quebec is almost 100% percent sustainable, with hydroelectric up there. So, I don't think a new coal plant has been built in quite a bit of time. Natural gas is still big and taking over a lot of the coal stuff, but natural gas is way more efficient. They not only spin turbines, but they use the heat as an additional source, so the new natural gas generation plants are way more efficient.

Seth Weintraub: And then, we have batteries that eliminate the need for peaker plants, you have offshore wind, there's Great Lakes wind as well, that taken altogether with solar and everything else and hydro, we know how to get to fully sustainable. So, we know how to get there. There's no science breakthroughs that needed to happen. It's all just scale efficiencies that need to happen.

Scott Simmie: And you mentioned you also have solar panels on your home. What would you say to the person out there who likes to think that they believe they're green, but they also think, "I'm just one person. I can't really make too much of a difference"?

Seth Weintraub: That's actually a big thing. I mean, it's like voting. Right? Your vote doesn't really count. Right? Because it's just one out of a billion. But I think it's like, do you believe in science? Do you believe in the earth? Do you want to set a good example for your kids? It's the same thing. If you're going to be upset about the Trump or Ford administration, you can't really do that and then not make every effort to green your house and do all the things that can pull carbon from the atmosphere, I guess.

Scott Simmie: You mentioned at the very outset that the first time you took that Tesla ride, it blew your mind and there was a shift that happened. Seven years later, what's it like for you now when you get in your Tesla and go for a ride? Does it still give you a special feel? Is there's still something about being an electric vehicle that does it for you?

Seth Weintraub: Yeah. If I end up renting a gas car, if I'm traveling, which hasn't happened obviously in a while, but it's always a super big disappointment to have to hit the gas and go through the gears and all the silly stuff. I try not to break any speed limit rules, but it's also when you're driving on the freeway and you need to pass a truck or whatever, you feel like a man among boys, like you're playing soccer with a bunch of children, because you're so much faster. You can go from 55 to 65 almost instantly. So, some big muscle car pulls up next to you and you can just... gone. It's a superiority feeling, I guess. And another example is like whenever I'm at a stoplight and I'm in my Tesla, and I'm like, "Well, I got to represent Tesla because everybody's like, 'Hmm, I wonder how Tesla's are,' so I have to go from zero to the speed limit as fast as I possibly can." And I want people to know that, "Hey, I just smoked a Camaro and made no noise in the car, didn't struggle at all. So, that's me.

Scott Simmie: One final thing that my friend who drives a Tesla often talks about is he claims, and I haven't gone to look up the studies or anything, but he claims if you're in an accident, because of the

design of the vehicle, that you're actually more likely to be safe in a Tesla specifically than in many internal combustion engines. Is there data out on that, or is that something you've heard as well?

Seth Weintraub: Well, I've seen data, and Tesla's promoted their data, obviously. They would want to do that. The idea is that you're basically, the whole front of the car is a crumple zone, so you have that frunk in the front that's not full of anything, theoretically, unless load it up with metal or something, it's not going to... When it crumbles, it's going to allow more smooshing of the car, and I think something like 80 or 90% of crashes are in front of the car crashes. So, that makes sense. I haven't done any due diligence on the data I've seen, but it makes sense. There's also the fact that the car is not carrying any flammable liquid. Obviously batteries can catch on fire, and they have in the past, but I think, overall, you have a much less chance of a fire incident in any electric car than a gas car.

Scott Simmie: Awesome. So, that's the end of our formal chat, and this sound indicates that we're just going to hit our rapid fire around to wrap things up. I'm going to ask you a few quick questions, just looking for a few fast answers. Number one, money aside, what's your favorite electric vehicle, if you could have anything in your driveway?

Seth Weintraub: I just got a model Y. That's my favorite. And now my wife and I are fighting over it.

Scott Simmie: What simple thing can someone listening today do to reduce their carbon footprint?

Seth Weintraub: I mean, the easy thing is throw up some solar panels on your house. Just pretty easy. Electric vehicles are also easy.

Scott Simmie: How long, and you might even say it's now, but before EV becomes affordable enough for mass adoption, would you say?

Seth Weintraub: I mean, I would say now. Friend just bought a Chevy Bolt for 20,000. You can get used ones less. I think it's an excuse. Like a lot of people say, "I couldn't get a four wheel drive SUV," and I'm like, "You can get a four wheel drive, you can get all these things, it's just not perfect because there's not the exact thing you want." But sometimes you just have to give it... can't get everything you need. Maybe it doesn't come in the color you need. I don't know.

Scott Simmie: Do you think we will have personal flying vehicles available at some point?

Seth Weintraub: At some point, for sure. A lot of smart people were working on it, Larry Page, even Elon Musk has talked about it. The problem is, obviously, batteries are too heavy. And I'm assuming you mean electric and not hydrogen. I think hydrogen probably would be available for long distance travel now, but unfortunately, hydrogen is usually extracted using not very green methods. So, you got to get the whole package.

Scott Simmie: Once it's available and you could buy something you could fly in and you consider it safe, is that something you'd do?

Seth Weintraub: Absolutely.

Scott Simmie: Awesome. Seth Weintraub, owner of electrek.co, 9to5Mac.com, 9to5Toys.com, and many other websites. Thanks so much for sharing your inside story today.

Seth Weintraub: Thanks for having me.

Scott Simmie: Seth is a super knowledgeable guy, and that website again is electrek.co. That's, E-L-E-C-T-R-E-K.C-O. You'll find all the latest from this industry, and if you're on a budget like I am, a good selection of electric scooter reviews. As for a Tesla, well, someday I hope so. They truly are awesome to drive. And every little thing we can do to help the environment, even if it's just one step at a time, helps. As Seth pointed out, it's like voting, and that, as we know, is really important too. I'm Scott Simmie, and this has been Inside Stories.

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