

▶ The term ‘nerd’ is most often associated with things like a very passionate love for roleplaying games, comic books, all things Star Trek or Star Wars, and other hobbies that are considered ‘fringe interests’. And it is often synonymous with a lack of social skills and a certain awkwardness. Especially due to the last part, the term is, more often than not, still seen as a derogative. The rise of geek and nerd culture in recent years is slowly changing that perception. But even with DC and Marvel movies or TV shows like *The Walking Dead* and *Game Of Thrones* outperforming their competition, there are still a lot of people who don’t really know what being a nerd really means. Take Cara Santa Maria and her podcast *Talk Nerdy*. You’d be hard-pressed to find discussions of the latest or upcoming superhero movie on there. Here, the science end of the broad nerd spectrum takes centre stage. Cara Santa Maria – a nerd, a science geek, a podcaster, and so much more...

▶ **Cara, you’re not an easy person to pin down, in terms of what you do. When you meet someone new, how do you introduce yourself?**

Generally? Hi, my name is Cara. *(laughs)* Seriously, though, when someone asks what I do, my go-to reply and the most descriptive answer is, ‘*I’m a science communicator*’. The problem is that a lot of people don’t know what that means, but I think saying I’m a science journalist is too narrow. I do a lot of journalism, but a lot of what I do is also entertainment or infotainment, getting people excited about science and trying my part to improve science literacy. So communicating science, talking science, evangelising science, if you will, is important to me.

More lately in my career I have gotten involved in other aspects of production, kind of broadening my scope. However, that doesn’t mean that I’m getting away from science. I’m probably rethinking how I define science and scientific thought. I think talking about politics, social justice or civil liberties are still scientific conversations. It’s really about getting away from thinking of science as a discipline and moving toward thinking about science as a way of think about our world – basing our decisions on evidence, instead of our guts or emotions, looking at track records, bringing reason into the conversation, not being afraid to be intellectual or academic. I think we can bring a scientific approach to almost any problem, and it doesn’t have to be a science conversation.

A portrait of Cara Santa Maria, a woman with long, wavy brown hair, wearing green-rimmed glasses, a grey long-sleeved top, and a necklace with a skull pendant. She has a lip piercing and a tattoo on her left forearm. The background is a plain, light-colored wall.

cara
santa maria

CARA SANTA MARIA

Cara Louise Santa Maria was born 19 October, 1983, in Plano, Texas, to the unusual mix of an Italian father and a Puerto Rican mother in a Mormon family. The graduate of the University of North Texas (M.S. in neurobiology) is an outspoken atheist and lives with her dog Killer in Los Angeles.

► **And when you get out of bed in the morning, your brain is still booting up, and you look into the mirror: How do you see yourself? How does Cara Santa Maria define herself when there is no one around you have to explain anything to?**

I'm still trying to figure that out, to be honest. I guess I look at the mirror and say, 'I hope I'm on the right track'. But I think we are always redefining ourselves and trying to figure out what we do and what it is we love, how we can contribute in a way that is meaningful to us. If I look at myself two years ago, four years ago, ten years ago, I see a completely different person at each stage. I was working in academia for years to become a scientist. That really informed the work I do now, but I am not a scientist. I don't work in a laboratory. I'm not actually doing science.

»I'm talking science. I help translate science from the laboratory to the public. (...) There was a time when I didn't even know that this role was a possibility.«

As I said before, I'm talking science. I help translate science from the laboratory to the public. That's a role I'm much more equipped for and that I am much better at. And there was a time when I didn't even know that this role was a

possibility. If you would have asked me, 'Do you see yourself on TV?' while I was still working on my graduate degrees, that question would have seemed laughable to me. So who knows how I'll feel about it and about myself in five years? You know what? I still feel like a kid. So maybe the answer is that I look in the mirror and think, 'I'm not that old!'. (laughs)

► **And I want to say, 'You really aren't!', but I know what you mean. There is this internal-external divide between your mental or emotional age on the one side and your biological age on the other side.**

Well, and you're right, I'm not even that old. But I did just turn 31, and in Hollywood years that's ancient. And yet I'm still figuring out who I am and trying to understand myself in a new context. I used to understand myself as an undergrad in Texas or as a pothead who used to go to raves, then I understood myself as a struggling grad student who was really broke and really cold in New York. And now I'm trying to understand myself in the super weird, surreal world that is Los Angeles, where, for whatever reason, being smart is not that cool. It's really hard to find common ground and to meet people who share your interests and your values. I've finally been lucky, after about five years here, to find a really close-knit group of friends. We call ourselves the Nerd Brigade. It's a smart group of interesting people who all do similar things to what I do – taking science out of the laboratory and bringing it into the public eye. It's cool to have that now, to be able to support one another and go on dorky field trips together. When you don't have that? That's when it gets hard.

► **Do you think it is easier to figure yourself out in this kind of environment, because you get to do and try out so many different things, or is it more difficult, because you are expected to do and be so many different things at the same time?**

I think it's both. Of course figuring out who you are goes beyond what you do and how you get paid. So in a sense it's harder because you are up against so many values. I'm certainly up against a lot of values in Los Angeles that I disagree with – there is a lot of major ageism around here, there is superficial obsession with the way you look, with how skinny you are, with what some people might define as talent. Which is a lot different from how I would define talent.

► **What's the difference in the definition there?**

I'd say what is generally considered talent here is lacking in depth and lacking an intellectual component, which I think is important. So those are differences that make it more difficult to figure yourself out. I've been in jobs where I had a lot of pressure from above to look a certain way, to act a certain way, talk a certain way, all things that definitely were not me. *'Wear that short skirt, instead of that tie. Carry yourself in that way. Back off a little and let the boys do the talking.'* That kind of thing. And that's just never been my personality. At the same time, I can draw a lot of parallels to growing up in Texas in a Mormon family. Sometimes, when you are so different from the norm, it strengthens who you are. Sure, there are times when you are lost. But then there are times when you see that you are so different from



everyone else that you can't help but be yourself. It might not be easy to figure out who you are, but it is easier to be yourself than try to fight it.

► **You mentioned your own, private Nerd Brigade. Your podcast, of course, is called *Talk Nerdy*. Have you completely escaped the stigma that was once, and often still is, attached to the term 'nerd'?**

You know, it's funny. I sometimes have teachers reach out to me – even semi-young ones, who have about five to ten years on me – and they say, *'I love what you're doing, but you don't want to call yourself a nerd. That's mean!'*. But it's not. We're still trying to rebrand the term from being pejorative. But it's a process. I really think being nerdy is a point of pride. It means that you care a

lot about your chosen subject, despite the fact that other people think it is un-cool. And, let's face it, you do care about what other people think. We all do. It's a stupid trope to claim that you don't. So your nerdy passion is in spite of those adverse opinions. And it is generally correlated with pursuits one should be proud of. They might not seem all that positive when you're in fourth or fifth grade or even ninth and tenth grade. But when you're grown up, you realise that the nerds are inheriting the world. *(laughs)* Now I'm thinking: If only somebody older would have helped me see that to take ownership of that brand is really the best way to fight back. If you're a nerd, you're a nerd. And the truth is, it's pretty awesome. It's just the powers-that-be at a younger age that make you feel like it's not.

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► **Do you actively remember the moment when you realised that you are a nerd – in a positive way or what you perceived to be a negative way?**

No. Probably because I was a super weird kid. I wasn't just one thing. Maybe that brings us back to me still trying to figure out who I am now. When

I was in school, I was in the most competitive honours classes. I was in a programme called International Baccalaureate – that's basically an Advanced Placement course on steroids. By the time you finish that, you have two years worth of college under your belt. I ultimately dropped out of IB, but that was because I dropped out of high school early to start college. So I was definitely competitive in an academic sense – Math Olympiads, all the extra curricular activities – but at the same time I was in jazz choir, which is also kind of dorky, and I was a cheerleader. I definitely roamed in both tribes. Which always made me either the dorky cheerleader or the really cool nerd.

► **Which probably sounds good to someone who has never been part of two groups that have so little in common. But anyone who has experienced something similar to that...**

...will know that it means you never really belong to either group, yes. I had friends in both camps. Everyone was my people – yet no one was my people. That definitely made me feel a little bit like an outsider. And that's a theme I have experienced a lot throughout my life. Yeah, some kids called me a nerd, and not in the good way. But then other kids thought I was really cool and looked up to me. And I always would try to empathise with both sides. Even now I sometimes see fan mail or comments on YouTube videos and recognise people from middle school or high school, and they say, '*Cara was always really nice to me in school*'. Reading that is super nice and really makes me happy, and I guess I can attribute that to the

fact that I walked in everyone's shoes. But, let's be honest, I was probably still a total dick to someone. All kids are. So there is probably someone who thinks, 'That girl was such a jerk'. In the end, I guess I was in a very lucky position to have a foot in both camps and therefore be able to empathise with both.

► **Talking about being or talking nerdy – the podcast is not *Talk Nerdy To Me* because that property lies somewhere else, correct?**

Yeah. It's a little weird. I did a pilot for HBO, called *Talk Nerdy To Me*, that didn't get picked up. But pretty soon after that I was hired by Arianna Huffington to come work for the *Huffington Post*. They didn't have a science page at the time, and I joined them in setting one up. The role that we found for me was to be the science correspondent and to develop a web series. She had seen the pilot and wanted to adapt it for the web. So after the initial pilot for HBO, I did the weekly web series with the same name on Huffington Post for a year and a half. And, yes, because I did at HuffPost, it was their property. After I left, they continued it with a different

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host – a great girl who used to be my associate editor.

► **But, technically, it was your thing...**

I feel it was my baby and my brainchild and they have just taken it and continued with it, but I didn't want to step on anyone's toes, nor did I want to try to mimic something I had done somewhere else. And I think, in a lot of ways, that chapter had closed, and I wanted to move on to a more long-form conversation, so I could have room for nuance and real discussion and debate and argument and fun, which is a little hard to do in a scripted three-minute format.

► **In an early episode, you mentioned that a lot of people who are like you earn their paycheque in television, which allows them to do things like a podcast on the side. Is that how you see *Talk Nerdy*? Or would you like it to be your main focus?**

I would love for it to be my main focus. I'm not in a position yet where it would be lucrative enough to be that, though. And I may never be. But I don't know that I would say that the podcast is just on the side either. When I started it, I was still in one of my old jobs – which I am not doing anymore, and that allows me to speak a bit more freely now. I was on a live daily television show, which was a lot of work. We were in the office all day, doing the prep, figuring out the news stories we were going to do. Our writers were working really hard, too. It was a great opportunity. I was very close to my co-host. But my executive producer was, let's say, difficult. There were a lot of power struggles. And there was the before mentioned pressure from



above to be a certain way. What developed out of that was a general discomfort and a constant second guessing of myself. Which, I guess, was the intention of my executive producer. In a lot of ways, the podcast was born out of that because I was starting to lose my grip on what my voice was and starting to lose my confidence. So I wanted to do something that is me. At that time I had already been a guest on Joe Rogan's podcast a few times. His fans had been really positive and supportive, and Joe had gone above and beyond in being supportive. He insisted that I need to do this because, according to him, the podcast format would be right for me.

► **So there was an inherent desire to do something but the impulse for what that something was exactly, a podcast, came from the outside?**

Certainly. Maybe, somewhere in the back of my mind I had been thinking that it could be interesting. But then I

was probably also thinking that it would just be a lot of work. But I had amazing people tell me that this is the platform that I should be on because they know me and they know it makes sense for me as a person. Then one time I was on Joe's podcast he asked the listeners, *'Should she do this? Go tell her she should!'*, and I got hundreds of amazing comments. That's what really pushed me over the edge and made me comfortable with doing it. And it's been huge for me so far. Everything about podcasting is amazing. It's long-form, so it allows me to have real conversations. It's uncensored. It's self-contained in the sense that I am the producer and editor, and no one gets to tell me what to do or how to do it. No *'The advertisers don't like that!'*. No *'The network executives want you to change that!'*. And lastly, it's audio only, which means I can do it in my pyjamas. *(laughs)* Literally! I don't have to wear makeup either. You may have heard me mention that on an episode, the one with Ana Kasparian: There is this horrible thing on the web where all people seem to want to talk about is how you look. I don't have to deal with that on a podcast.

► **You're looking for something that is you. You get the impulse. You take your own money to start it, not knowing that you'll ever get it back...**

Well, yeah, but it wasn't that expensive. It was \$1,500 because I had to buy all this equipment – microphones, stands, this cool mixer thing. For me it was a lot of money, but it is not a huge investment in terms of starting a new thing that has the potential to grow. Then someone had to show me how to work Garage-

Band. That really was it for the start. And it's been a learning curve ever since. It's not perfect now and it was even less so at the beginning. But people stuck with me. See, I have a lot of fans who are scientists and who want to become more of a science communicator. They keep asking me how to get started. My answer is: Start a blog. Then they say, 'But what if I'm not good at it?' To which I say: That's not a problem – in the beginning, no one is listening or reading anyway (*laughs*) That's how I felt about the podcast. I knew I didn't have a listenership yet. So if I made mistakes, no one would notice. Or not a lot of people.

»I owe a great deal to Joe for getting me started. Without him I wouldn't be doing this right now.«

► **Well, you say you had no listenership. Doesn't an endorsement by someone like Joe Rogan give you at least a bit of a head start?**

Oh yeah. Totally. And I say all the time that I owe a great deal to Joe for getting me started in this. I mean, I didn't know him personally. He asked me to be a guest on his podcast because of the things I had done already. That said, when I was a guest on his podcast, we clicked, and somehow he saw something in me that was right for the podcasting world and he offered me great advice. Without him I wouldn't be doing this right now.

► **But that's where it stopped? He gave you the idea, he encouraged you. But nobody did anything for you? Nobody sent advertisers your way, etc? The doing of it all, that was really up to you?**

Exactly. I started out with no advertisers. Now I have some advertisers. And that's how it works. But – and I think this is an important conversation to have – I would have never even gotten into this field to begin with, would have never been on television, if it had not been for my ex-boyfriend Bill*. This is 100 per cent true. I was a graduate student when we started dating. I was still working on my Ph.D. and I had no thoughts whatsoever of doing any entertainment related work. I was actively involved in advocating for Women in STEM, as well as for Latinos in STEM. I was talking about awareness in mental health issues and I was already a pretty open and outspoken atheist. But all of that was just my personal life. The work I did was as an adjunct professor and as a researcher. At the beginning of dating Bill, when I was spending time with him in L.A., I would go to these fancy shmancy Hollywood parties and didn't have a pair of high heels to my name and I had no fucking idea what I was doing. The first party he took me to was, I think, a Globe party, and I was told, 'Just be comfortable, it's out by the pool'. So I turned up wearing a tank top, ripped-up jeans and Chucks. And all the women were wearing gowns. I was so embarrassed. But he would take me to parties and introduce me as, 'This is my girlfriend. She is a scientist. Tell 'em what you do'. And the more he saw me talking about it and saw my passion for it, he started saying that I

* Bill Maher, host of *Real Time with Bill Maher* on HBO

have to bring this to a bigger audience. It wasn't my idea. He pushed me into it – pushing in a positive way. The pilot we talked about? He produced it. He pushed me into doing interviews. The reason I'm telling you this is because it is a common theme especially women are struggling with: Doors are opened for you in your life, all the time – by people who care about you, by people who mentor you, by people in your family. But they can't walk through them for you. When someone opens a door for you, you should be grateful. And you should seize the opportunity, if it's an opportunity that is meaningful to you. But **you** have to be the one who makes something of it. Even if someone gets you a job, **you** have to be the one who keeps it. This is an important point, because a lot of girls deal with guilt – and the media certainly doesn't help. Let's say you are not in the public eye – you still deal with the microcosm that is your social circle. And there might be people saying, *'Oh, you wouldn't even have this job if your daddy hadn't talked to that guy'*. That may even be the case, but it is not the reason why you are now thriving. It's because you worked your ass off for it. That's why I don't think we should be ashamed when people that matter to us or to whom we matter open doors for us. At the same time you'd better see it as a responsibility. If I am presented with an opportunity, I work damn hard and I make sure that I don't fuck up. Have I been lucky? Yes. Very, very lucky. But I've tried to match my luck with just as much hard work.



► **How much hard work has the podcast been in this first year? Or how difficult was it for you?**

Well, the podcast itself has been pretty easy. *(laughs)* Podcasting isn't that hard. It's a lot of work for no money or for little money at the beginning. I have done quite well with some advertising and I have some amazing fans who make contributions. There is also the merch, although that is not really making me any money, as you have to spend so much to create it. You get in the hole for it, then you make it back, only to go back in the hole with it for the next round. That's not really a moneymaker for me. The act of podcasting itself is super easy. It's what I would naturally do anyway if I was sitting with somebody over a cup of coffee, except that I now have a mic in front of me. The hard stuff for me is remembering to post on Facebook and reminding people that I have shirts they can buy. I'm not crying about it, but I still think this part sucks. I'm not good at selling stuff. I feel weird for even asking. In terms of really hard work – that's the TV and the web stuff I'm doing; working 14 or 16 hour days, doing shoots in the freezing cold. But then I'm not building bridges either. It's hard, but compared to what? I can even say that my job now is 100 per cent better than when I was slaving away in a lab. I wouldn't trade it for anything.

► **What I find interesting about podcasting: You don't have a choice – you can't really make a for-pay podcast these days...**

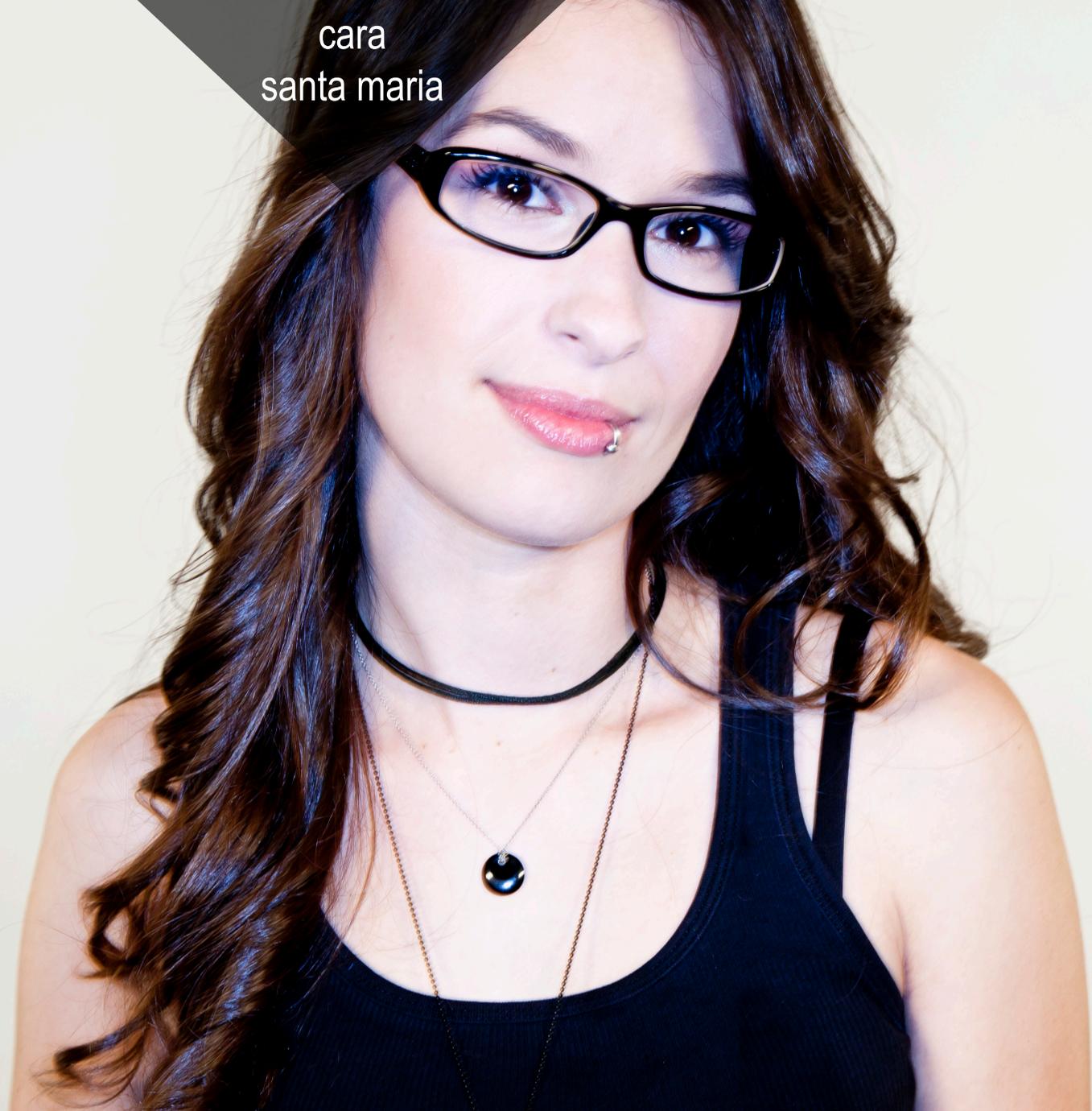
That's true. The good thing about it is that podcasting isn't a very expensive thing to do. You have your upfront

costs, but after that it only costs money in terms of investing time. If I decide to take a day for podcasting, that's a day I can't take a job that might pay me. Outside of that? Talking is free. It might take you some gas money if you have to drive somewhere to do a great interview. But I don't even have that problem, because I drive an electric car. *(laughs)*

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► **Of course funding through advertising is not just a difficult thing to get. I remember you mentioning that you only take on advertisers you feel comfortable with. That elevates the level of difficulty even further. How do you make sure to toe the line?**

What I do is I tell an advertiser that this is an ad copy I'm comfortable with – this is my voice, this is what I'd be happy with telling my listeners. Then they can decide whether or not that is something they can live with as an advertising read. Think about it not like a pure journalist, but still keep the journalistic ethics in some ways. The simple question I ask myself is: If I'd say this, would I be lying? Also, you should always be very clear about the fact that something is paid for. You don't have to always say, *'This is a paid endorsement'*, but you can still make it clear. I might have



an advantage over other podcasters by dealing mostly with small businesses. I've had deals with some of the bigger companies that deal in podcast advertising, but for the most part it's small businesses. That has even allowed me to do trades, like a great artisan who worked with leather and got ad time on *Talk Nerdy*, and I got custom-made leather merch with my logo on it. That's a little more work than a regular deal, but it is also a cool way of supporting each other, since we're both hustling. A lot of people now work for themselves. We don't have employer health care in this country. You have to get Obamacare – which is a huge improvement over how it used to be, but still. We have legacy structures in this country that really support traditional means of employment and family. Married with 2.5 kids, with a mortgage, working in the same job for

30 years, and a pension. But that model isn't modern, it doesn't work anymore. A lot of people are struggling because they have to buy their own health care and have to pay double social security as employer and employee and so on. So any way that we can support each other is really great.

► **If the for-pay model would work, what model would you opt for?**

I think I'd still pick a hybrid model. My listeners matter to me and I want their feedback and their influence. But, just like I don't want to be reliant on advertisers, I wouldn't want to be solely reliant on the listeners. If I want to interview someone, then I will interview them. Yes, maybe some people don't like a particular interview partner. I see that sometimes when I interview co-

medians. That gets some ‘*Where was the science in that one?*’ feedback. And when I interview a theoretical astrophysicist, there’ll be some ‘*That one wasn’t funny!*’. So if the whole podcast would rely only on listeners paying for it, that would give them an almost editorial power because I’d have to ask myself how many people will pay for a certain interview. A hybrid system helps – even now the mix of advertising, merch and voluntary listener support. And that’s an amazing thing, by the way. Some people, who don’t have to pay for it, still do that out of their own volition. It doesn’t make a big dent financially, but it does make you feel very special. People steal music and movies all the time because it is easy online. For someone to go out of their way to pay for something they can have for free? That’s cool. And I am very grateful for it.

► **I want to finish by borrowing two of your own question, just slightly amended. First, what do you dread about the digital future?**

Oh, nice. Let’s see. I dread a world where privacy is no longer even thought about as a right. I think about kids today, who are born into a world that has the internet, as opposed to people like you and me, who got to experience the development. We are not complete digital natives, but we – being of a similar age, with a similar experience – had it happen during a formative time of our lives. That allowed us to embed ourselves in it more readily than our parents. But kids today? I mean, you’ve seen the baby trying to swipe a magazine instead of turning a page. Or people going, ‘*Why is there a hashtag on an old school phone?*

That’s weird. They didn’t have Twitter back then. So what happens when the next generation or the one after that is born into a world where nothing is private anymore and everything is online, with cameras everywhere – maybe they even have some sort of bionic recording device because Google Glass is no longer outside but actually embedded in your body? It sounds like a dystopian scenario, but these things are right around the corner. I worry about what that will do to social interaction, to the sense of self and to personal space and individuality. But even more than that I dread a world without net neutrality. We’re already dealing with a digital divide. We live in a world right now where poor people who don’t have access to food or clean water or shelter also don’t have access to the internet.

»The great equaliser amongst different races, genders, sexual orientations, classes or wealth levels is education.«

► **Which, of course, is not the same as saying that starving children in Africa are missing out on Twitter...**

No. It means their inability to improve their own situation is exacerbated. To continue on a path where the divide between rich and poor increases is not a world I want to live in. And the great equaliser amongst different races, genders, sexual orientations, classes or

wealth levels is education. It's the only true underpinning to mobility. That's why slave owners didn't want their slaves to be able to read. It is why revolution occurs when people are empowered and informed. North Korea, for example, is in the dark, and that is why there is despair and death. To see that the poorest among us don't have access to the wealth of information that the richest – and in some ways least grateful – have at their fingertips is not just sad but ultimately scary.

► **Leaves the question what you are looking forward to in a digital future...**

I look at my iPhone and think about all the amazing things it does. I had this experience a few years ago: I had a TV meeting in Maryland, and there was a blizzard. So I was standing in the cold at a subway station and I realised that I would be completely lost without my phone. Without it I wouldn't have known who I am meeting, where to go to, how to get there. That moment I wondered what I had been doing before, when I only had a Razr phone without the internet and my life was bleak and horrible. *(laughs)* In the future, we will have a similar feeling, but this time it will be all in our heads. Then we will wonder how we could ever manage anything without integrated technology.

► **So embedded technology is something you're looking forward to?**

Yes. I'm definitely not afraid of it. I believe it will free us to be so much more efficient and creative and unbridled. It could enable us to work with other people in ways that allow us to actually

tackle major social problems and create a world that is better. The only thing I'm afraid of is that I'll be an old lady before that happens. I read the other day that little kids are now learning how to code – the way you learned a second language because you grew up in a country that isn't the US, where we're generally very lazy about learning other languages – so that they will be able to communicate with machines in a way that is just native and fluid to them. And we are going to look like idiots next to our kids or their kids.

► **So, do you think you and I will live in a world where I get *Talk Nerdy* streamed directly to my brain via some sort of implant?**

You and I might. Our kids will. I definitely think, before long, we will be able to have information directly streamed to us. That's a very different thing to say than that we're going to live forever, because we can download our brains into jars. To me, there is a big, distinct difference between sci-fi that hasn't done it's homework in terms of how the brain works and sci-fi that is based in true research. Scientists are actively developing micro implants for people with seizure disorders and people with different types of neuronal injuries, to both be able to stimulate and record. We are very close to implantable devices that don't require any external wires – cell-sized implantable devices that we can control in a microscopic way. And since we are so close to having these technologies for people with disorders or injuries, it is only a matter of time before it gets modified for other, more mainstream uses. **:X:**

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