



Library podcast

Cory Doctorow discusses "Radicalized"

[00:00:05] Welcome to The Seattle Public Library's podcasts of author readings and library events. Library podcasts are brought to you by The Seattle Public Library and Foundation. To learn more about our programs and podcasts, visit our web site at www.spl.org. To learn how you can help the library foundation support The Seattle Public Library go to foundation.spl.org

[00:00:36] Hello. Hi everybody. Good evening. Thank you all for being here tonight. Hi everybody. I am Stesha Brandon and I'm the Literature and Humanities Program Manager here at The Seattle Public Library. And as we begin this evening I would like to acknowledge that we're gathered together on the ancestral and unseeded land of the Coast Salish people. We honor their elders past and present and we thank them for their stewardship of this land. Welcome to this evening's event with Cory Doctorow presented in partnership with the university bookstore. Thank you to our author series sponsor Garry Kunis and to the Seattle Times for generous promotional support of library programs. Finally we're grateful to The Seattle Public Library Foundation private gifts to the foundation from thousands of donors help the library provide free programs and services that touch the lives of everyone in our community. So to those of you who are Library Foundation donors here with us tonight we thank you very much for your support and without further ado I would like to introduce tonight's program. Cory Doctorow is an author, activist, journalist and blogger the co-editor of Boing Boing and the author of many books including *walk away Rapture of the Nerds* *Little Brother* *homeland* and *information doesn't want to be free*. He works for the Electronic Frontier Foundation is an M.I.T. media lab research affiliate, a visiting professor of computer science at Open University, a visiting professor of practice at the University of South Carolina's School of Library and Information Science and co-founded the UK Open Rights Group. He's here tonight to talk about his new book *Radicalized*, a collection of four urgent science fiction novellas connected by social technological and economic visions of today and what America could be in the near future.

[00:02:25] Please help me welcome Corey Doctorow thank you all for coming.

[00:02:33] It's lovely to see you. I. When the wall started to close there I had this sort of haunted mansion flashback. You know this chamber has no windows and no doors. So yeah I wrote this this new book *radicalized*.

[00:02:45] It was not an intentional book I actually wrote it while writing the third little brother book which I've just turned in and I wrote it as kind of therapeutic intervention in my own Trump

derangement syndrome. You know when I get anxious about things I write about it and it has four novellas in it and I thought what I would do is kind of introduce the four novellas read briefly from one of them and then entertain your questions. The first story in the collection it's called unauthorized bread and it's a story about people who live in refugee housing. That's a kind of Internet of Things haunted house where it where everything every appliance is designed to rip them off for every penny they have. So the toaster only toaster authorised bread in the refrigerator only refrigerator authorized groceries and the dishwasher will only wash authorized dishes and the laundry machines will only wash authorized clothes.

[00:03:35] We have this kind of technology adoption curve where when we have a terrible technological idea first we try it out on people who when they complain no one listens to them. So you know poor people kids people on welfare refugees immigrants prisoners mental patients people on parole and then you know once it's kind of we've worked the bugs out that that you know can help you sort of slide it past people's initial defenses then we tried on blue collar workers and gig economy workers and white collar workers.

[00:04:04] And I wanted to write a story about people at the start of that curve and so they live in this building and it's kind of a mixed bag. But you know as bad as these appliances are the thing that's worse is that the kind of crappy hedge fund that builds these kinds of appliances is the kind of crappy hedge fund that financially engineers itself into bankruptcy and so one day none of the appliances work anymore because their servers are off line but that prompts them to become jail breakers and they start jailbreaking their devices and it's very exciting and all of a sudden their masters their technological destiny which works great until the companies bounce back out of bankruptcy and restructure. And now the telemetry on their servers threatens to expose the people in the building. And since jailbreaking your devices is a felony under the Digital Millennium Copyright Act they face deportation back to the countries they fled in fear of their lives. So the stakes go up very quickly.

[00:04:55] The second story it's a story called Model Minority and I wrote it after reading Matt Taibbi his amazing book about the murder of Eric Garner by NYPD officers who were eventually not penalized in any meaningful way for what they did.

[00:05:11] And it's a story about Superman or as I call him the American eagle flying over Staten Island and encountering potentially fatal beating by the same NYPD cops of an African-American man and something in him snaps and he decides that he's fought for truth justice in the American Way all this time it's time for him to do something about this and he thinks he can do it because he's been part of the American fabric for so long that he figures he's got you know white privilege that he's a that he is a white man who can interpose his body between the forces of racism and and people who who encounter it and what he discovers is that the last person in the White Privilege boat is the first person out and that it only takes about a hot second for someone who who betrays white supremacy to suddenly become not just not a white man anymore but not even a human anymore.

[00:06:02] Very quickly becomes an alien again.

[00:06:05] And it's about what it means to be an ally and why it takes people so long to become them and what it takes to realize that when you're an ally it's not your story it's someone else's and this is a hard realization for him compounded by the fact that his good friend Bruce Wayne is the one selling the predictive policing tools to the NYPD that can actually result in this and this police violence. The third story is called radicalized. It's the title story and and it's a story that asks the I think in retrospect pretty obvious question how is it that traumatized angry frightened white dudes murder their ex-wives and brown people going to mosques but never seem to kill health care executives who make choices that result in the people they love best dying lingering horrible deaths. And so

[00:06:54] People who join a message board for mutual aid while their loved ones are going through these these horrible long lingering deaths find themselves instead of being comforted being radicalized.

[00:07:06] And it's a story about where radicalization comes from and its relationship to trauma and how our story about radicalization that it's a kind of infectious agent where you have like a patient zero who is a radical and who rubs up too close to people who aren't and confers radical upon them. And then they go out and do terrible things how that totally ignores the role that trauma and poor Carrie and anxiety plays in making people vulnerable to having their fear and they're there their trauma and their sorrow weaponized. And how as a result our whole response to radicalization is it's the it takes the form of the world's worst apology in the world was apology goes. I'm really sorry you're angry at me right. And and our radicalization response goes I'm really sorry you're traumatized not that I'm going to do anything about the trauma but do you think you could be a little less traumatized by it and about the limits of that. And also what it means to have people who are doing things that you don't agree with in the service of a cause that you support and how every right is taken and never given and how that always means that there are some people who are monsters that you side with because they're your monsters and then you have to think about afterwards. And the final story is about monsters it's called The Mask of the Red Death. It takes its title from this agrarian Post story and it's about preppers It's about rich preppers who figure that when the time comes all of those people who've been rendered useless by automation will Sunday break free of the thin constraints of normalcy and start building guillotines on their lawns.

[00:08:43] And so they have outfitted luxury bunkers with guns and thumb drives full of Bitcoin and gemstone quality precious stones and all the other things you might need MRI ese and so on to wait out the time in which the underclass is devour each other and get civilization running again with the remnants and then they can kind of ride out and emerge and kind of live a permanent for at a painting you know where they get to be like you know war lords with harems and and what they're missing is that of course giant mountains of corpses are rising tides that sink all boats right are rising tides of germs that sink all boats and you can't shoot germs it doesn't really matter how many guns you have and cholera is a hell of a drug. And so those are the four stories first couple of stops on this tour. I read from that story radicalise and I read a really good tight very dramatic passage but it's about dead kids and suicide bombing and it kind of set out like a downer tone for the evening. So I've been doing a different reading and that's what I'm gonna read. Now it's a bit from unauthorized bread and it's the story of Suleiman the Libyan refugee woman who kicks off the jailbreaking revolution in this luxury

building in Boston that has been forced to create some below market rent floors in exchange for a planning variance that lets them go taller. How how this bill actually she kicks off this this jailbreaking revolution and how she comes to do it.

[00:10:06] After downloading the new firmware from the darknet she had to remove the case slicing through three separate tamper evidence seals and a large warning sticker that threatened electrocution and prosecution perhaps simultaneously for anyone foolish enough to ignore it and locate a specific component and then shut out two of its pins with a pair of tweezers while booting it. This dropped the toaster into a test mode that the developers had deactivated but not removed the instant the test screen came up. She had to jam in her USP stack removing the toasters Hood had revealed a set of USB ports a monitor port and even a little ethernet jack all stock on the commodities single board. P.S. that controlled the toaster and she's jammed it in at exactly the right instant and then use the onscreen keyboard to tap in the log in and password which were admin and admin. Of course. It took her three tries to get the timing right but on the third try the spare log in screen was replaced with the pirate firmware as cheesy tech start animation of a 3D skull which she smiled at and then she burst into laughter as a piece of text art toast floated into the frame and was merrily chomped to crumbs by the text art skull. The crumbs cascading to the bottom of the screen and forming into shifting little piles.

[00:11:21] Someone to put a lot of effort into the physics simulation for that ridiculous animation. It made Selina feel good like she was entrusting her toaster to deep serious crafts people and not just randoms who'd like to pit their wits against the faceless programmers of some big stupid company. The crumbs piled up as the child of the skull chomped and the progress indicator cannot up from 12 percent to 26 percent and then to 34 percent where it stuck for a full 10 minutes until she was ready to risk really breaking the damn thing by unplugging it but then 58 percent and so on to an agonizing wait at 99 percent and then all of the crumbs rushed up from the bottom of the screen and went back out through the skulls mouth turning back into toast each reassembled piece forming up in ranks that quickly blotted out the skull and the words all done burn themselves into the toast surface glistening with butter that ran down in rivulets. She was just grabbing her phone to get a picture of this awesome pirate load screen when the toaster blinked and rebooted itself. A few seconds later she held a slice of bread to the toaster sensor and watched as its light turned green and its door yawned open.

[00:12:30] Halfway through munching the toast she was struck by an odd curiosity. She held her hand up to the toaster palm out as though it too were a slice of bread. The Toasters light turned green and the door opened. She was momentarily tempted to try and toast a fork or a paper towel or a slice of apple just to see if the toaster would do it. But of course it would this was a new kind of toaster a toaster that took orders rather than giving them a toaster that would give her enough rope to hang herself. Let her toast a lithium battery or a can of hairspray or anything else. She wanted to toast on authorized bread. Even homemade bread. The idea made her feel a little queasy and a little timorous homemade bread was something she'd read about in books seen in old dramas but she didn't know anyone who actually baked bread that was like gnawing your own furniture out of whole logs or something. The ingredients turned out to be incredibly simple. And while her first love came out

looking like a poop emoji it tasted amazing. Still warm from the little toaster and if anything the slice or the lump that she saved and toasted the next morning was even better especially with butter on it.

[00:13:44] She left for work that day with a magical warm toasty feeling in her stomach.

[00:13:50] That's the reading and so I figured that.

[00:13:59] Now that I've introduced the book and read you a little of it that we could do Q and A and I like to call alternately on people I identify as women are known binary and people identify as male or non binary it kind of gives us a better balance and I know that when I say this oftentimes there's a little bit of a silence. And having been through this and being a dude I have a theory about it which is that speaking from personal experience a lot of the dudes are spending at least half the time thinking of a question that makes them sound smart. Why is the women are actually paying attention and so when you announce this sometimes you've got to vamp a little like I'm doing now to let women come up with questions of their own. There we go. Thank you very much.

[00:14:39] All right.

[00:14:40] I'm curious as to what if anything inspired you to set at least a portion of each of the stories in Arizona.

[00:14:46] Yeah it's a really good question. Well noticed I kind of wondered if people would notice that net. Everyone has Arizona really fascinates me right.

[00:14:56] It is a state that is so-called majority minority. Right. But it's also a state that swings hard right. It's the Sheriff Joe Arpaio state. It's the papers please state where we have checkpoints that make brown people show their identity cards. It's a state that has this blue oasis in the middle of our red territory. It's a state that is seeded territory from Mexico and also occupied Indigenous land. And yet a state that is incredibly hostile to immigrants but also a state where all of the people who are hostile or immigrants are retirees from a different state who nevertheless lay claim to this state. It's a mess of contradictions. And it's also a state that is full of climate deniers where for a couple of weeks every year they can't use the airports because the plane's tires melt on the tarmac. Right. And so. I guess I think Arizona is going to be the nexus of a lot of conflict and change and maybe a bellwether in the years to come. And you know it's I live in Burbank which is a tiny city on the edge of Los Angeles and we have a little tiny airport that's never been brought up to code and is a delight to fly out of as a result because the gates are all really close together. The planes come right up to the terminal and like dying in a fireball eventually a small price for having my gates that close. But our hub is Phoenix and so I go to Phoenix you know a couple of times a month on my way somewhere else. And so I just kind of get this ambient feeling of Phoenix like every now and again if I'm flying home and it's evening I'll go to a bar and have a drink and about half the time I end up sitting next to like climate denying oilmen from Alberta you know and ends like it is such a massive contradictions there that I find it endlessly fascinating.

[00:16:46] Are there any people who identify as male or known better you'd like to ask the next question.

[00:16:52] Yeah. Over here. Just pass the mike over.

[00:16:58] Well as a follow up then how are the climate denying oil barons to talk to Yeah.

[00:17:05] That's a really good question. How are the climate today and oil barons to talk to.

[00:17:09] They are weirdly charming and reasonable for monsters you know and it's one of the things that you know you that that this book tries to dig into is how you get to be a monster right. How you start with a bunch of logical premises and how you can be someone who's like kind to your parents and good to animals. And what have you and still contemplate a future in which 90 percent of us are going to be digging through rubble for canned goods and like drinking our own urine and go you know six of one half a dozen the other than what you're gonna do a man's gotta eat you know like like it. Try to understand that. Mindset is really important and hard and I think a lot of it has to do with fear and poor carry. I there's a real kind of tech clash underway right now that I really welcome for the most part. I think that it's great that we're we're talking about the toxic things that tech can do but a lot of it is a company by kind of tech exceptionalism. You know there's a writer who's very good but who I disagree with on a lot of points called Shoshanna Zu Boff who wrote a book recently called surveillance capitalism in the age of surveillance capitalism and zoom off. She's like the problem with tech is not monopolies. The problem with tech is that machine learning lets them control all of our decisions and trick us into doing things. It's basically like Facebook invented a mind control right. That's the problem with tech and all the anti monopoly protection you want would would not give you back the freedom that we lose because of machine learning manipulation and I'm like you know it's kind of weird that you look at this.

[00:18:57] You look at the the big tech companies and you think that everything they say is a lie except their sales literature which you assume is the thing that they're telling the truth about. Like I think Google will tell you that they have a mind control Ray but I don't think Google has a mind control any more than Cambridge analytic I had a mind control right. You know mostly what what social graph analysis is good for is finding people with otherwise hard to find traits in people have the same rare diseases you or people who you know went to the same school as you or whatever. And I think what Cambridge analytics did is not like convert random people to races. I think they found racists and told them about Donald Trump which is terrible in its own way but it's a different kind of terrible and and I think that there are a bunch of people who have supported Trumpism white supremacy and its related pathologies not because they're particularly wedded to the ideology but because they have the sense that we're playing a game of musical chairs where the chairs are being taken away really fast and then if you're not in the chair you're you're in the shit and this fear doesn't necessarily make people racist but it makes people tolerate racism. Back to you know there may be a monster but there are monsters.

[00:20:21] If they're protecting you from that kind of precariously that you fear you know a miserable senescence of eating dog food and you know being shut in and and and withering away on your own in a state with no welfare system and no pensions and you know the kind of grifters taking everything.

[00:20:43] If that's if that's what you're fearing for your future then I think that it's a lot easier to dehumanize other people and take what they have in the name of defending what you have. And so. Yeah when you hang out with those people in the bar they're perfectly reasonable monsters you know. And the fear is all over them.

[00:21:07] Are there any people who identify as women or non binary you'd like to ask the next question What technology are you excited about.

[00:21:16] Not afraid of excited about it.

[00:21:19] Yeah. So here's the thing. I think that the important thing about technology that distinguishes it from good or bad is not what it does to it does it for and who it does it to. So you know one of the stories in this book is about predictive policing and it's a story that looks at real world technology where people who are read about racial bias in policing gather arrest statistics and try to use automated systems to direct policing activities on the grounds that math doesn't have bias. But of course if you train math with bias then the math will produce biased outcomes right. If you wanted to know how tall the average person was and you surveyed a Grade 3 class you would assume that the average person was 4 foot 2 right. And if you want to know

[00:22:15] Where all the crime is and you use crime data generated by cops who only ever stop and frisk black people and that's their entire enforcement strategy the machine will dutifully tell you that that's where you should go. There's a guy named Patrick Ball from the Human Rights Data Analysis Group in San Francisco mostly they do work on genocide trials and they found a bunch of mass graves in Mexico and so on they do rigorous statistical sampling to extrapolate the full scope of of of war crimes but they they did some work on predictive policing and they took pred polls tool. That's the major predictive policing company started by a UC Berkeley professor and they trained it with drug crime data from Oakland and they asked it to predict where the drug crime would be in the following year from Oakland and it dutifully drew this like a little red dot in the black as part of the black neighborhood in Oakland. And then they took the National Institutes of Health data for that following year on where drugs were used in Oakland and it's a kind of even distribution right. And so

[00:23:13] You can see that that like this technology used badly produces this terrible outcome. But imagine that same technology only used to identify bias right. Not used to magnify bias and give it empirical face wash. But to actually identify bias and use it to systematically critique bias it's literally the same statistical analytical tools. And it's just the differences. Who's using it and what and who they're using it against and under what circumstances. So you know there's hardly a technology that I'm not excited about in that sense but I'm I'm leery about how it's being used. You know Doug Rushkoff wrote this great essay about going to see this going to this like hedge fund conference I guess he was like a keynote speaker or something. And there was a panel on what to do when the

event comes right which is you know when the apocalypse arrives and and the panel the question that they really grappled with was how do you keep your guards from killing you and taking all the food after money isn't worth anything. And this one guy had a great solution which is that he was going to have like a combination like password and biometric lock that would do something for like life detection so you couldn't just cut his finger off and open it. And he said that way my guards will have to keep me alive or they'll starve to death because no one will be able to open the food locker.

[00:24:32] So you know speaking of my professional capacity as a dystopian science fiction writer that is a pretty dystopian stuff. But you know like many of you I have had a lifelong struggle with my waistline and like I have gone on diets and those diets sometimes say well if you can eat as you're supposed to for say 17 days then on your day off you can have a piece of cheesecake and there have been many is the time when I wish that I could have put a lock on my fridge that would only open every 17 days literally the same technology. Right. The only difference is who is doing it in service to and who it's doing in service for. So I'm I'm remain very excited about cryptographic tools not so much crypto currency crypto means cryptography 90 percent of all conversations about bitcoin are nonconsensual. But. But you know we live in an age of wonders in which the pocket distraction rectangle that we all carry around automatically seamlessly and without any human intervention routinely scrambles the things that we ask it to hold for us to such a fine degree that if all the hydrogen atoms in the universe were computers and all they did until the end of the universe was try to guess what key was needed to do scramble that message that you run out of universe a long time before you run out of possible keys. That is a wonder. I mean the fact that it can be used by bad guys to do terrible things doesn't change the fact that it gives us access to an unprecedented degree of privacy.

[00:26:00] You know for that matter I'm I'm really excited about Facebook not the Zuckerberg being part of it but you know the thing that science fiction does really well is imagines a technology divorced from its economic and social context and how it might be used in some other way. So you know the people's republic of Facebook where there is no need to spy on us and where we can stay in touch with all of our friends and readily find people who had the same interests as us and find people who you know want to support the Green New Deal or who you know want to talk about having a gender identity that isn't in the mainstream or any of the other things that people have done with online networks.

[00:26:40] That's a really exciting prospect. You know and all we need to do is you know euthanize the renters who make Facebook into a dystopian surveillance machine. And what you end up with is is a technology that's actually rather good. And it's the answer to the riddle right. Why is it that people keep using this terrible technology if it's so terrible. And the answer is because it's not uniformly terrible what's happened is that that we have a devil's bargain where to use something that is foundationally good and important and part of human thriving. We have to submit to terrible things but not because it's inevitable right. No one came down off a mount with two stone tablets saying thou shalt stop rotating nine log files and mine them for actionable market intelligence. Right. We could we could make a Facebook that that was free of you know Zucker Zuckerberg and horrors we could take the existing Facebook and free ad of Zuckerberg and horrors. Right. These are choices that we made

and not inevitability is and back to Tech exceptionalism. You know the tech industry wants you to believe that these are inextricably bound together and they're not their choices individuals made for in their self-interest and to the extent that we believe them when they say that these are intrinsic to tech instead of parts of you know sort of late stage monopoly capitalism we give them a free pass because it frees them of any responsibility for their actions.

[00:28:04] Are there any people who identify as male or known better you'd like to ask the next question.

[00:28:08] Yeah. There. That's good. Yeah. Sure.

[00:28:11] And then we'll come to you next in the authorized bread. There's a moment where some employees of the toaster company speak with Selina and they talk to her. She says Why can't I just use this without having to jailbreak her pay or anything and they say well but we're offering you a choice. We're giving you something. And she's extremely frustrated with them. And they're they can't even comprehend what the freedom she's talking about. I when I was reading that I've had that conversation over and over and over again with people that I just meet in coffee shops here in town and it's I never know what to say about because for one thing they're in a privileged position starting salaries for most of them start at like one hundred and thirty K a year and only go up and so they're from a privileged position they're talking about or giving opportunities. All these taxi drivers are actually having more options with Lyft and Uber etc. So you know it just goes on and on and I never know when users can sell their platelets to Peter Teal and they will yeah that exactly that. So what's your take on how to like bridge the gap and kind of work with that fragility.

[00:29:17] Hey I don't mean it's like kind of I say fragility cause it's kind of the same thing of a place of privilege someone pointing out something and you freak out like well I mean I think you're digging into one of the reasons that like fiction is a good activist tool right because it exposes people to a kind of emotional fly through of what a technological choice feels like as opposed to you know the abstract arguments about choice and not choice and so on.

[00:29:44] We did a panel last year at the World Science Fiction Convention on trade unions and socialism and capitalism and the history of science fiction and we talked about the fact that the least science fictional thing you could say like the most the opposite of science fiction is Margaret Thatcher's aphorism that there is no alternative right like that's you know there is no alternative. It's like it is it is the actual opposite of what we try to do with science fiction which is try to imagine alternatives sometimes bad ones sometimes good ones.

[00:30:14] But the idea that that history runs on rails right and that there is no alternative it's a very powerful rhetorical tool for one thing it's demand disguised as an observation right in the same way that when like Zuckerberg says privacy is not a norm for kids anymore what he means is if kids didn't have privacy as a norm he would be richer right. And when Margaret Thatcher says there is no alternative she means stop trying to think of an alternative and one way that we are prisoner of there is no alternative as we've lost sight of what the bargain is with property. The bargain with property

historically has been that if you sell me a thing and you expect me to use it in a way that privileges your shareholders above my own interests that you are probably going to be disappointed right. If you sold me a car where the cigarette lighter was fitted with a special bolt that needed a special screwdriver to unscrew it so that you could put a phone charger in it and you charged 100 dollars to remove the bolt. Under normal conditions all other things being equal and this being my property you would expect someone to sell me a screwdriver for a dollar to remove the special bolt right.

[00:31:28] And if you didn't like it tough nuggets you know if like there's this argument that goes well if you didn't want to just use apps that Apple had approved Why did you buy an iPad. And the answer is if Apple didn't want me to jailbreak the iPod why did they sell it to me right. Because the thing is that once Apple sells it to me it's mine right. And so I get to make the choice not them. And so I might do things that they disfavor I might do things that they believe to be foolish. I might do things that that undermines their business strategy. But you know felony contempt of business model is not a statute on our books and yet the fact that someone is offering you more choices eclipses the fact that they're constraining the most important choice which is to ignore the choices they've offered you and choose your own choice and you know I think that like this comes up a lot.

[00:32:32] I think it's part of the way that we we think about so-called intellectual property that this this has some of its origins in. There's a there's a company a was a company that that was aimed at evangelicals that made a thing called Clean Flicks. That was an edit decision list that you could merge with your DVD player and it would skip the DVD over the swearing while you watched it right. This is not a product I would use

[00:32:59] But the Directors Guild of America threatened to sue them for making derivative works. And they said like when we sell you the DVD it is with the intention that you watch the DVD in the order that we presented to you and not in some other order. And you know speaking as someone who has some favorite movies and favorite books and so on I have been known to reread a scene every now and again or watch it out of order and there is no version of this argument that says well evangelicals can skip the swearing.

[00:33:32] That also doesn't say you can't check the end of the mystery to see whether you guessed right about who did it and decide whether you want to finish it or reread that favorite scene out of order or skip every other word or do any of the other things that we do as part of our normal enjoyment of cultural products and the as far as the idea of copyright became the idea of intellectual property and as intellectual property kind of wove its way into our conception of every product right we have we've arrived at this mindset where the claim of the Creator is never truly quit and the the person who acquires the the thing that embodies the idea is is at best a kind of tenant of of it and not the owner of it. And it's really amazing that so many people who are such staunch private property advocates and market advocates immediately abandon this commitment to property and markets. Once you have these choices right that that you know where the choice takes the form of like having an HP inkjet printer and then them pushing deceptive security update to that printer and you click update and then it starts a timer running that waits six months so that everyone else clicks update before anything bad happens.

[00:34:54] And then all the printers wake up one morning and stop accepting third party ink and the deal is like well if you didn't like it why did you buy an HP printer.

[00:35:03] And you know it's it's yours. You own it. You got to decide what to do with it. It's no one else's damn business what you do with it. It's not John Deere is business. It's not Eli Lilly it's business. It's not Apple's business.

[00:35:17] And if they don't like it they can find another line of work right. It's not your job to make sure their business is viable. And that's the argument. You know you frame it in terms of property I think and sometimes you can get through to people there any people identify as women are non binary like tests.

[00:35:35] Next question so when you write. Is it more of a prediction of where we are going as a society or of a warning of where we should go.

[00:35:48] Yeah I'm really skeptical of the enterprise a prediction. You know science fiction writers like to claim that we can predict the future.

[00:35:55] I think that the evidence is that we underperform a random number generator right that that like we're basically we're like Texas marksmen you know if we fire the shotgun into the side of the barn and then we draw the target around the place for the pellets went in. And so we spend a lot of time lauding our successes in Arthur Clarke predicting the stable orbits and Robert Heinlein predicting the waterbed and polyamory. But

[00:36:19] You know we made a lot of predictions as a body and if none of them come true would be pretty amazing. And I think there's a good reason to celebrate the lack of predictive power which is that if prediction were possible then what we did wouldn't matter right.

[00:36:33] The reason the future is hard to predict is because we act on the future. I have a colleague Ada Palmer who's a wonderful science fiction writer and she's a tenured professor Renaissance history at the University of Chicago. And every year with her undergrads she runs a four week long live action role playing game where they reenact the election of the Medicis Pope and the students are all given different roles to play different power blocs that they represent and so on and at the end of the LARP a couple of the people in the final four are always the same because those people were sort of ordained by the great forces of history to be in the final. But there's always a couple of people that are different and they're never the same two roles because human agency changes the course of history. And really those two who are there because of the great forces of history great forces of history is just another word for the things set in motion by human agency at an earlier phase in our history. It's all human agency all the way back.

[00:37:25] So I'm not a believer in prediction. I'm with Dante Dante took the fortune tellers and he twisted their heads around 180 degrees and he set them to waiting in molten feces while being flogged by demons and weeping down their backs with the tears pooling in their ass cracks.

[00:37:43] And I think you know Dante let the fortune tellers off easy because if it's if it's true that we can't predict the future that we can predict the future then there's not really any reason to get into bed in the morning because it's going to happen whatever happens you know optimism and pessimism are both fatalism right one goes the future will be fine don't worry about it the other one goes. The future is going to be terrible don't bother. Right.

[00:38:05] So rather than optimism pessimism I always brief for Hope which is the idea that if you act you can find a better situation from which you can we see another way to act to find a better situation.

[00:38:19] Write that that one step at a time in this unknowable dynamic in an adversarial terrain where other people are trying to frustrate your goals one step at a time we can attain a pinnacle and that we can't ever plot that course in advance we can only look back on it retrospectively and so fiction for me it is sometimes a warning and sometimes an inspiration but it's never a prediction. And you know if we are all to ascend a gradient together we have to agree on what that gradient is right how we know we're getting to higher ground and one of the things fiction can do is have us agree on what the end might look like so that we can always tell if we're headed towards it not because we're predicting it but because we're coming to a common accord about which direction we want to head in. We may never get there. It might be stone soup. It might be the instigator that gets us to a place we can't see from where we are but that we're just as happy with I think you had a question next.

[00:39:14] Yeah just wait for the mike there.

[00:39:17] What do you think the apocalypse would look like. When do you think it would happen. Eight do you think it will happen right. And if it does what will look like.

[00:39:28] Well I think we're we're we've lived through a lot of Apocalypse is right. I think if you are an Indigenous person whose background is in the Americas you've lived through half a millennium of apocalypse and not just that group of people but lots of people have lived through apocalypse as I think if you were a West African three hundred years ago during the triangle trade that you lived through an apocalypse I think you know there have there have been many of them. And I think one of the answers to that is that the aftermath of the apocalypse is very quickly returns to something like normalcy even when it's terrible. I remember after Trump was elected there was this real push to say this is not normal and don't let it be normal. And I understood the sentiment behind it. But we regress to the mean. Right. If you if you even in the presence of the most horrible stimulus it eventually becomes normal right it doesn't matter how loud the h vac system is in your building. Eventually you stop noticing it. Right.

[00:40:38] I used to live by a train track in Toronto and guests would be amazed because we would just be chatting and then we would all fall silent for about a minute while I took it it took it took it it took

it to tug it. And then we just start talking and we wouldn't even notice. And they go like how often does that come by. And you know in the words of Elwood Blues and The Blues Brothers so often you won't even notice. Right.

[00:41:00] And so it does become normal. Everything becomes normal. You hear the accounts of people who lived in concentration camps and they said it became normal. And it just became life people and in prisons people in solitary confinement it becomes normal. It's terrible and it's normal. And so the apocalypse has come and come before and will come again depending on who you are. I mean you know to misquote William Gibson the apocalypse is here it's just not evenly distributed. I think there are plenty people in Syria who who have lived through an apocalypse in terms of of

[00:41:34] How I think about the cycles that that create and break us free of Apocalypse is and what apocalypse is do. I was really profoundly altered in my world view by reading a book by a French economist called Thomas Piketty called Capital in the 21st century and Piketty got this whole huge group of grad students and they look through banking ledgers and other historic sources of information about finance and they trace the capital flows all over the world for the last 300 years and they normalized them to look at how capital has been concentrated and and diffused again and what the correlates of that were right when when capital is really concentrated what happens and when it's when it's diffused what happens. One thing that happens when capital is really concentrated is our ability to make good evidence based policy becomes harder because when there are a few rich people that that control our policy outcomes you can only make policy that doesn't upset those people. Right you can't go a rich person's ox and the more concentrated capital becomes the more access rich people hold and the less policy you can make that actually accords with the real world and you can see some of that right now there is just a filing by Dow Chemical in West Virginia where there they're having a regulatory proceeding on safe levels of toxins and drinking water chemical runoff and drinking water chemicals not coal or the biggest industry in West Virginia and Dow is the biggest company in the industry and and Dow's filing said that they believe that safe levels of of of toxic waste in drinking water could be safely raised in West Virginia because the existing levels were based on national weight averages and West Virginians are much fatter than the average American and so the toxins with you more dilute for them plus West Virginians don't even drink water right.

[00:43:16] So this is the kind of thing that you know that kind of like non evidence based policy that you arrive at when you're not allowed to go a rich person's OCS right.

[00:43:26] And it's the same thing with you know saying climate change isn't real and and so on and so on and and what Piketty says is that over time the policy debt that you build up from having bad policies right from poisoning people from killing them from destroying their homes from destroying their livelihoods from ruining their lives and the lives of their children builds up and he's got a little benchmark he's like when when you reach the level of inequality that France had in 1789 then things got really bad and I think for a lot of people outside of France that was like That's a weird date. But of course that's the date they started building guillotines in France right. That's what he means and what he says is that even the most bloody and awful horrific apocalypse one of its aftermaths is that because so much capital is destroyed and because rich people own almost all the capital the weak of

the wealthy on although the grip of the wealthy on policy outcomes is weakened. And when that happens you have a kind of you know glorious period afterwards.

[00:44:33] You know they call the 30 years after the World War 2 they call it the 30 glorious years in France because it was the years in which they constructed the welfare state and social mobility became the norm. And and you had a kind of pluralistic society that that valued everyone. And you know we've had a few of those in our in our recorded history where you see in the aftermath you see better policy ironically emerging out of the ashes of these apocalyptic events in an America that one of the great apocalyptic events was mania mission has one of the reasons slavery was so widely practiced in America is because the people who practice it became unimaginably wealthy from practicing slavery. They they stole so much from the people they enslaved that when those people were granted human status and ceased to be recorded on these ledgers as property and were accorded the status of humanity albeit a fraught and discriminatory one that in the stroke of a pen the American wealth distribution suddenly became more even than it had been at any time. And in the years that follow you see not not you know a utopia but a time in which policy was much more reflective of pluralistic needs than it had been in the time beforehand just as you see it after the wars.

[00:45:50] And so I think that there's something to an apocalypse but I fear that our next apocalypse is climate change and I think that it is not an apocalypse that's easy to stop right it's not an apocalypse that ends when when you call a truce and then bring everyone home and treat them for their trauma and growth and cope with the aftermath and rebuild. I think it's an apocalypse that goes on and on and on and that's a thing I fear.

[00:46:17] And and it's also a thing that I hold out hope for in that sense that I discussed earlier that if we in as we approach that time and and as we live through it if we seek constantly to find a way to better our situation in the situation of our neighbors that we will find a way through it it will be hard and it will be awful at times. But the only way through it is is in solidarity and with hope right. And anything else is a recipe for for you know death.

[00:46:52] Are there any people identify as women are known better you'd like to ask the next question.

[00:46:55] Dr. what you said about S. being sort of more of an exploration than a prediction really resonated with me.

[00:47:15] But you also are someone who was acknowledging the power of technology and machine learning algorithms how all that could be used for good as well as bad. And so I was wondering at which point algorithms machine learning all that technology that we're constantly using cheat more and more of our lives.

[00:47:33] At what point that becomes a prediction at which point that becomes a prediction a prediction. So I think that we can divide the problem of making tech better into what we should do and what we we should stop doing right. What are the conditions that allow us to make good policy and

then what is good policy. And I think that the stuff that stands in the way of good policy it's actually pretty low hanging fruit it's really easy I think for people of goodwill to agree on.

[00:48:04] So one of the problems we have with understanding machine learning and artificial intelligence is we call it machine learning and artificial intelligence instead of what it is which is statistics. And most of the problems that arise from machine learning and artificial intelligence are Elementary Statistics problems right sampling bias. Right. And and p hacking and a bunch of other stuff that is just like obviously just just statistical malpractice. But when you call it data science all of a sudden no one no one who understands statistics can can critique it because you're told well no these are inscrutable unknowable conclusions that are arrived at through this oracular method that can ever be unpicked. And so I think we can agree that just as we have done with every form of knowledge creation since the end of alchemy in the start of science that we shouldn't trust machine learning unless we can see the data unless we can see the algorithm unless we can replicate its findings. And I understand that there are practical problems with the engineering here. Machine learning has a huge reproducibility problem not least because machine learning practitioners work from very big datasets that are so large and unwieldy that it's impractical to just take a snapshot of it and keep it locally. And so you're working on a dataset that lots of other people are working on and they're changing the dataset they're correcting labels and so on. So the next time you run exactly the same training run on your on the same data the same data you can get a different outcome because the data has been corrected by other people. And so just interrogating it and the conclusions are a real problem. And that's fine I mean nascent sciences often have to make compromises but we shouldn't use their conclusions in production. If we if Intel we can approach them like a rigorous science instead of like lab projects right instead of like the things that you do where you're making preparations in the world in order to formulate hypotheses that you can create experiments for that other people can replicate.

[00:50:03] And you know we're part of the problem of course is just the Gartner hype cycle that if you sprinkle machine learning onto anything else you get you know you get investors and you got a stock market boost in the same way that you add cryptocurrency and you've got you got double the double the fun there.

[00:50:21] But you know it's it's that. But the other problem is that we have deliberately office gated. What we mean when we say machine learning and a I and I would love to see I mean I think there is a better critical practice of that stuff emerging. The eye now Institute is doing really good work as I mentioned Patrick Ball has done some really good work with the Human Rights Data Analysis Group. And there are others as well. Joey Ito who's my my colleague and I think technically my boss at the Media Lab is teaching an artificial intelligence and ethics course with Jonathan Zittrain from the Harvard Berkman Center. And they're posting their syllabus and their readings and it's really good. Makes me wish that I lived in Boston so that I could I could sit in on it. So there is a burgeoning practice this stuff there people are thinking about. Obviously Kathy O'Neill and weapons of mass destruction are a really important intervention in this automating inequality is another good one. O'Neill has a really good rule of thumb to tell whether someone is like actually trying to improve things with machine learning or if they're just grifters. And that rule of thumb is do the conclusions of the

machine learning algorithm ever get evaluated to see where they whether they match what happened in the world. Right. So like this is one of the things that distinguishes say Amazon from a predictive policing tool or a predictive hiring tool or a predictive lending tool.

[00:51:39] Amazon says we're going to see if we move this Buy button if people buy more stuff right. And then they check to see whether people bought more stuff. They don't just say like I guess that worked right. But if you hire a machine learning startup to evaluate the resumes that come in over your H.R. person's transom they will say these are the five people you should interview these ninety five people you can ignore but they never ask you whether any of those five people were good employees and they never checked to see whether the other ninety five weren't. And so they're just just you know like in that world where you can make predictions and no one ever checks whether they're true you can predict a lot of stuff you know. And and mint a lot of money until someone figures it out. So that's kind of how we make things not worse as to how we make things better that kind of prediction of like when machine learning becomes a prediction and so on. I think that's that's dynamic. Right. Because

[00:52:34] What's best changes from moment to moment based on the circumstances. Right. Things that are terrible are always terrible. Right. You should never like you know if you hire a team of structural engineers to build this atrium and they say well fine but we're not going to tell you the math we're using to construct the reinforced steel joists that keep the ceiling from caving in on us like you should never go into that atrium.

[00:52:58] Now there are lots of ways to build this atrium but you should never build it with secret load stress calculations. Right. And so the the good way to do it changes based on taste and based on the moment and based on other circumstances. But the back way to do it is relatively universal right.

[00:53:15] And so that's the that's I think the difference between prediction and an intervention maybe people take one more question and then I'll deface books with a Sharpie gentlemen in that green shirt back there something I've been puzzling on is how to communicate between different groups.

[00:53:37] Satellite scientists. Scientists like to say science is a team sport. And a lot of the ideas they develop come out of that rapid teamwork and peer review. And making sure they have their statistics right. And yet the people I interact with don't believe the scientists. Sure. And it seems to be just a matter of social domains knowledge domains structures of information. And I like to think that the Internet is helping people bridge between those groups but on the other hand I'm perpetually optimistic. It's gene therapy and it is this really going to bring us all together. Are we really going to hear each other.

[00:54:23] So I think that is up for grabs. And I have my own idea about what's going on with what I call like our epistemological crisis because it's not just that we have a crisis about believing different things. We have a crisis about how we know what things to believe. Right.

[00:54:41] And I have talked to a lot of anti vaccines for example. And when you dig into the anti vax argument it starts from a place that's actually kind of hard to argue with. Right. So the anti vax argument takes three parts. The first one goes Big Pharma is concentrated rapacious and gets away with murder. Anyone who's watching the Sackler family and Purdue Pharma and the opioid epidemic knows that's absolutely true. Right. And then they say regulators are completely captured. They let them get away with murder. Well. That's also obviously true. And then comes the part that's not true which is that if pharma is greedy and rapacious and immoral and the people are supposed to keep them from killing us are asleep at the switch or worse in cahoots with them. Then how can we trust vaccines and the epistemological incoherence that we have is the result I think of corruption that we can't any of us master all of the technical domains we need to master in order to navigate the world we live in a very complicated technical world and even the smartest most scientifically minded among us will have a limit to the number of disciplines that we can have informed opinions about and we will eventually have to defer to experts. You know if I were diagnosed with cancer I would go and read everything I could about cancer. But ultimately I would trust the oncologist right because I just can't absorb enough information on my own to be my own doctor.

[00:56:17] You know I know a lot about the law.

[00:56:20] But if I were arrested I'd call a lawyer and when the things that we use the heuristics or rules of thumb that we use to figure out which experts are trustworthy and which ones aren't breakdown because our institutions are weak and because the industries that are associated with those institutions are so concentrated that they don't need to fear either market retaliation or regulatory retaliation it weakens our ability to understand what's going on literally right because we can't figure out which experts to trust and which ones not to trust.

[00:56:59] You know I am.

[00:57:02] I've concluded that it's actually really hard to convince people that the science on vaccines is trustworthy and the reason for that isn't just you know that that you can't trust pharma and you can't trust the FDA. It's also stuff like you know Merck and an app attack have been caught creating fake peer reviewed journals right. Pay for Play peer reviewed journals with Elsevier where they are publishing bad trials right. That that where they're spinning them. And and claiming better outcomes than is than is valid. You know Ben Goldacre who's an evidence based medicine specialist an epidemiologist in the UK who's been responsible for things like the register of all trials and a bunch of the activism around Cochrane reports and so on. You know he's he's quite a you know he's got chapter and verse on this stuff. And when I say well I believe vaccines are effective because they are the trials that indicate that they're effective appear in reputable peer reviewed journals from major scientific publishers like Elsevier. If I'm arguing with someone who's half bright they go You mean the same Elsevier that let Merck pay for a journal full of non trustworthy potentially deadly pharmaceutical findings that were just garbage. And in the service of their shareholders and not in the service of human thriving it's really hard. And so. For the record I think vaccines work. I vaccinated my kids vaccinated. I think that I'm glad that I live in a state where the kids in my kid's school are not allowed to show up if they're not vaccinated. But I understand where the people who deny vaccines are

coming from. And I think that we have set ourselves up a much harder problem than the two cultures or people not believing in science. I think we've set up a moment of extreme incoherence that has been also magnified by the fact that doubt is profitable. Write that in at the same time as we as we have seen our science corrupted through monopolies.

[00:59:15] We've also seen it rubbished right. We've seen it deliberately characterized as untrustworthy by doubt industries around tobacco around opioids around climate and so on who deliberately muddy the waters about what science is and how to trust it.

[00:59:38] And so that's that's it's a gasoline pyre pot poured on the flames but the flames I think were created by monopoly right. And I think that we need to address that. I think it's a very urgent matter right now. I think that every problem that that I run up against when I look at it hard I realised that what it is is it's a problem of concentration of monopoly first and then it's expressed through some other means. You see this a lot with copyright for example where I don't want to dig into areas where at the end here. But you know the European Union just passed this horrible Copyright Directive and there were a lot of people were like well we need to do something because between the entertainment industry and the big tech that they're so concentrated that artists are having their livelihoods skimmed off successful artists are having their livelihood skimmed off by these big monopolies and that may be true but copyright is not going to fix it. You know if your kid gets beaten up for their lunch money every day and is going hungry giving them more lunch money won't get them fed and the police will just take that money too and we've had 40 years of of weak or nonexistent anti-trust enforcement and we spent that 40 years trying to figure out how we can steer our society without the steering wheel without anti-trust. And you know we know where the copyright lever is so we yank on that really hard and we know we're a bunch of other levers arm we yank on them really hard.

[01:00:59] But you know just because you can find the windshield wipers it doesn't mean that you can steer the car with them you know and at a certain point we have to stop arguing about whether or not flicking the windshield wipers and turning the lights off and on and maybe if we attach big sails to the windshield wipers we could steer the car. Eventually we just got to pull over and put a new steering wheel on. And so. I am very excited that we have people talking about antitrust again and monopoly in the public sphere Electronic Frontier Foundation has just launched a pro competition project and we've been weighing in at the FTC on their dockets and it's bipartisan. I mean I think that the far right woke up one day and realized that five executives at tech companies changing their mind about you means no one ever hears from you again. And while I'm glad that Alex Jones is off the air I think it would be very naive to assume that they would only ever use that power on Alex Jones and we have this rare moment of bipartisan if not consensus at least an emerging belief on on both sides of the political spectrum that doing something about monopolies is something we need to do all right so now I make books I'm returnable with a Sharpie and that sounds great.

[01:02:09] Thank you so much Corey. Let's get Corey a round of applause applause

[01:02:19] This podcast was presented by the Seattle Public Library and Foundation and made possible by your contributions to the Seattle Public Library Foundation. Thanks for listening.