

RALPH NADER RADIO HOUR EP 413 TRANSCRIPT

Tom Morello: I'm Tom Morello and you're listening to the *Ralph Nader Radio Hour*.

[music begins] “Stand Up, Rise Up”

Steve Skrovan: Welcome to the *Ralph Nader Radio Hour*. My name is Steve Skrovan along with my co-host, David Feldman. Hello, David.

David Feldman: Hello, Steve.

Steve Skrovan: And the man of the hour, Ralph Nader. Hello, Ralph.

Ralph Nader: Hello, everybody. This is a really good one. You can participate in a repair revolution.

Steve Skrovan: That's right. I was gonna say, David, you're able to repair things or do you got a guy? Do you got a guy who does that? Or what do you got?

David Feldman: I live in Manhattan where everybody's a smug intellectual until they need a plumber.

Steve Skrovan: [laughs] That's right. Well, if you don't got a guy or what if your guy charges too much money or you think it's just easier to buy something new; it's empowering to fix your own stuff. And fixing your own stuff means less money spent on replacements. It means fewer appliances and other consumer goods tossed into landfills and it allows each of us to think critically and make informed decisions about our relationship to consumption and sustainability. That's why we're looking forward to our conversation with Peter Mui, co-founder of the Fixit Clinic. Fixit Clinics are pop-up events where people can bring their broken goods to disassemble under supervision and do their best to fix them. Then, as always, we'll check in with our corporate crime reporter, Russell Mokhiber. But first, let's go to the repair shop, David?

David Feldman: Peter Mui is a technologist and the founder of Fixit Clinic. Welcome to the *Ralph Nader Radio Hour*, Peter Mui.

Peter Mui: Thank you for having me. It's a pleasure to be here.

Ralph Nader: Well, thank you very much, Peter. The subject for our listeners that we're gonna discuss with you really has old-fashioned roots. I remember in the old days you'd repair everything. In a small town, you'd go to the hardware store for help to repair something, to the shoe shop to help repair something. And it was just normal. We didn't throw away things like they do today. So, this new movement, the Fixit Clinics, the Right to Repair of the US Public Interest Research Group [USPIRG], that was leader on this; Nathan Proctor, we interviewed a few weeks ago. This is really growing by leaps and bounds. So, let's start with something very specific. You once had \$130 toaster oven and you loved it. Tell me the story.

Peter Mui: It stopped working well. Sometimes when you tried to turn it on, it wouldn't go on. And it was intermittent at first, so I pretty much quickly isolated it to the power on/off button. I was trying to understand what was going on there. So, I come from the old school, repair type of mentality and I took it apart to repair it. First, I looked to see what it would cost to repair, and whether the manufacturer had any information online on how to repair it. And I could buy a new circuit board, but the new circuit board price was – if I remember correctly – in the 90s. And I

think I had bought the toaster oven on sale for about \$85. So, it was gonna cost as much to buy the circuit board as to buy a new toaster oven. So, I opened it up and I found the part, the switch. The switch became a problem because it wasn't readily available. It was soldered onto the circuit board and finding a replacement. I'd have to buy 50 of the switches for not that much money so I could get the one that I could put inside the circuit board to replace it.

Ralph Nader: And that's not the only product that has these problems where the product heats up like hair dryers, kettles, even blenders. They use these thermal fuses. How do the manufacturers make it difficult for the customer to repair in terms of design?

Peter Mui: Okay. So the thermal fuse, I think, is there because probably Underwriters Laboratories and CE in Europe say there has to be this absolute positive fallback, if the device overheats, there has to be something that kills the power completely. So, the thermal fuse is in there as a safety item. That's okay. I don't have any objection to that, but it should be replaceable because sometimes it overheats for some reason, like someone accidentally leaves the curtain in front of their space heater, or they're using the hair dryer and it clogs up the intake with their hair, and so the inside of the hair dryer heats up and melts the thermal fuse.

I'm okay with the thermal fuse being there. What I object to is the idea that for most people, it's impossible to get inside there to replace it. And they don't know. All of a sudden, the thing is just dead in the water and they have no understanding of why that's happened.

Ralph Nader: Well, you know, in the article on what you're doing by USPIRG, they say something very interesting, so much so that I'm intrigued by it. And they say, "Since the late 1990s, durable goods have been getting cheaper. While the prices of durable goods have been going down, they're not made to be so durable anymore. Peter [Mui] cites changes in manufacturing, namely contract manufacturing, as contributors to the early death of his infrared toaster oven. Many brands contract with factories to make their products, then slap their logo on the outside when it's finished. However, Peter doesn't think it's the factory's fault that products are poorly made. He thinks it's the brand's fault for focusing too much on lower costs over quality or durability when awarding a contract."

This is quite amazing. In other words, the equivalent would be if the Ford Motor Company brand didn't connect with a Ford factory, [and instead] they contracted out to bidders as to who would produce the Ford car. And so, this contracting – and we had a program very recently, Peter, about how so many of the governments at the federal and state levels have contracted out services to corporations. Corporations are increasingly performing government services. And now we're seeing it in industry. How widespread is this?

Peter Mui: Whoa, whoa, whoa, so there's a number of vectors we can talk about here. So, you talked about the automotive industry, which I appreciate is near and dear to your heart. But think about the Takata airbags that were subcontracted out by the auto manufacturers and they were killing people. So, don't you think that there was something where the auto manufacturers went to their subcontractor Takata and said, "We want this airbag to be manufactured as low cost as possible."

So, this is happening all over the place. And you brought up the idea of government to the military, and absolutely the military is spending more and more on repair and maintenance and keeping stuff going. I was asked to give a Fixit Clinic at Travis Air Force Base. They've got stuff on the bases that they are trying to keep going, that they no longer can maintain. And it doesn't have to be people object, well, good it's war-fighting material. But it's stuff like their floor

polisher in the canteen on the base. It's some ancillary vehicle that moves airplanes around on the ground, that although the manufacturer no longer makes, they'd like to keep it in service. And more and more and more the military budget is going to repair and maintenance.

Ralph Nader: I was looking recently at the contract for the [Lockheed Martin] F-35, which is the most expensive fighter plane ever built. And in the sales to other countries, they had a huge chunk for maintenance and repair over the life of the fighter plane. Huge. This makes your point.

Peter Mui: Right. So, this is a business model, right? So, this is becoming more and more of a revenue center and it speaks to the very nature of ownership. So, when you buy something, do you own it anymore? More and more things are becoming such a combination of hardware and software, it's not clear. For example, if you stop paying the lease payments on your Tesla [Inc.], could Tesla send a software update to your car that essentially shuts it down? Or could they just, who knows how these sorts of things could happen? It doesn't have to be this way, but there are signs on the horizon of a dark dystopian future if we don't address this thing pretty darn fast here.

Ralph Nader: Well, we're about to address a bright utopian future in the Fixit Cafés and Repair Cafés that are spreading sometimes virtually, sometimes in church basements and libraries, where people bring in their products on a certain day and someone shows them how they can be repaired. We're gonna get to that. But to put it in even deeper context, the less products can be repaired, the more they're gonna be thrown away. And these involve electronic waste that carries “plastic, metal and heavy metals like lead, mercury and cadmium into landfills, potentially polluting water and soil.” And I'm quoting from the USPIRG statement, said, “Realistically, most of our old toasters go to landfills or incinerators and we pay the price for it in pollution.”

Now comes the innovation; I guess it came out of Holland, Amsterdam, the Repair Cafés and your Fixit project. Let's start with Amsterdam because apparently they're the hotbed of repair and describe that.

Peter Mui: So, Martine Postma, the founder of the Repair Cafés. She's a friend. We communicate on best practices. We both started in 2009, pretty much independently of each other. I honestly, you know, I'll take a lie detector on this. I didn't know that she was doing what she was doing when I started what I was doing here. And she also got three quarters of a million euros from the Dutch government. Which is like, I didn't get that –

Ralph Nader: Whoa.

Peter Mui: Yeah. I didn't get that from the US government. So, she had a head start in that regard and she got a feature in the *New York Times* a couple years later. And that's when she first came onto my radar and I reached out to her and we've been friends ever since. So, we both have been running these things called community repair events. That's sort of the broader categorization of what we're running. They started with a different model than me. They basically really embraced their name, which is Repair Café. And the idea is you go to your local cafe, you bring your thing, there's music playing, you have a cup of coffee, and you sit across from a repairer. They repair the thing and you have a conversation. The repairer is doing it out of the altruism in their heart and stuff like that.

I realized pretty early on that what we really needed to do, even if we could hold these kind of community repair events in every city and town across the planet, that most usable stuff would still end up in the landfill. So, I was really trying to target a different person. I was trying to find the activist, the change agents in our society, the people who are altruistic and forward thinking that also may have these skills. And what I was really trying to do is convey critical thinking and

troubleshooting skills using people's broken things as the excuse to get them in the door. Because once you have those skills, they're applicable across a broad range of issues way beyond the broken thing that's in front of you. I'm just using that broken thing as the impetus, as the motivation to get them in the door to try and just think about it. So, I was trying to do something slightly different from the get-go.

Ralph Nader: You're trying to scale it up. The issue is not just it doesn't work. I mean, you have to have quantitative significance to it. Isn't that what you're trying to do?

Peter Mui: Well, you also have to be careful what you measure. Because for example, the granting organizations that give me grant money now, lots of times what they want is to see tens of thousands of people coming in the door. They'd love for me to hold a Fixit Clinic in Madison Square Garden. And my problem with that is that as long as you offer free repair, everybody loves free repair. Everybody wants to come for a free repair event, but it's not conveying any skills. People are just coming in because... and I'm not saying those people don't deserve or need help. It's just that we are not scaled to that point yet. There's just not enough people to help all the people out there with broken things that want free repair. So, I'm trying to basically build that infrastructure first, and I hope we'll get to some critical mass. At this point, what I'd dearly like for people to... if there was something I was trying to broadcast broadly it's the idea that repair is possible; and it's even probable if you just wanna put a little work into it. Right now, I think we have this overarching mentality in the civilization that as soon as something breaks, I have no choice but to throw it away.

Ralph Nader: Well, right now, it's pretty much a volunteer effort, I think. You even had some virtual repair clinics, haven't you?

Peter Mui: Right. Actually I'm trending more and more in that direction for any number of reasons. So, that's really turned out to be something amazing that we could talk about more, if you want to.

Ralph Nader: In every community, there are technically oriented people with time on their hands. Some of them are retired mechanics or engineers or plumbers or electricians. And I would think they would be a very good source to do this thing on a local level. If not pro bono, say one day a week or something like that, where the person can make a little money, but also help a lot of families. I understand a lot of families come with their kids to these Repair Cafés. And like you indicated, it's sort of a social occasion and it brings the community together. But what about this model? Until a few years ago in my hometown, there was a Fixit shop. That's what it was called, the Fixit shop. An aunt and her nephew ran it and they just loved to fix anything they could put their hands on. They used to tell us that the more recent models were very difficult to fix, the modular design issue. But you couldn't count the number of different products that they would fix. And they made a modest living from it. There are a lot of empty stores with cheap rents on Main Street, USA. Is there a possibility for a model like that? They don't have to open five, six days a week either. They can just open two, three days or something like that. But it becomes part of the remunerative economy. What about that model?

Peter Mui: So, maybe I'm biased. I am here in Northern California at the center of tech and I'm in one of the most expensive cost of living areas on the planet, but all of the repair shops in my area are gone. And in the years that I've been doing this, I don't really see a viable business model for this at the moment. I mean, there might be some markets around the world. And certainly, we look at like developing countries where there is more of an economic impetus. But

frankly, at least in the United States, North America right now, choosing to repair, there's a certain economic privilege associated with it because for most people, if they do the rational economic calculation, given the risk involved; then, okay, I've got this broken thing. I have to figure what's wrong with it. I have to buy the repair part or I have to bring it to this repair person. I don't know how much they're gonna charge me. Even if the repair person for my toaster oven, if they bring in this toaster oven, they brought on sale for \$90, and the repair person says it's gonna cost \$90 for the replacement part plus my labor, they're not gonna choose to do the repair.

So, I'm not sure. I think about this a lot and my best thinking at this moment is to propose something slightly different than that. But I'm with you. I mean, push back, if you think I'm wrong.

Ralph Nader: Well, let's talk about this for a minute. The model doesn't have to be a full-time, five-day a week. In a lot of small towns, the rent is ridiculously cheap. You can rent a store with adequate space for \$300, \$400 a month. Some of the landlords will cut it if it's just a part-time situation. This is right on Main Street so you have a good location. And so someone could just have it, let's say, every Saturday. The door is open to anybody who comes in with all these products. And you mentioned or someone mentioned that the experience with these Repair Cafés that about 70% of the products that are brought in for repair are repaired and the rest are sent home with some ideas. Can you elaborate on that?

Peter Mui: Yeah. We have a historical repair rate of 70% and that's with absolutely no net(work). That's with absolutely no access to repair parts, diagnostic tools, or service manuals from the manufacturers; just applying basic critical thinking skills to common household durable goods, mostly electronics. We started in the Bay Area with electronics because that's our specialty and we got a reputation for being good at it. But I'm still gonna stick with this thing that it's just... I'm hearing that you want to revitalize Main Streets with repair. And I think we need to go to the next level higher and basically figure out how do we make these things more durably.

I'm gonna offer you a better alternative from my perspective, which is this idea that imagine that – we've certainly seen during the pandemic that the global supply chain has become brittle, and this idea maybe we've reached the limits of globalization. Maybe there's something going on now where we are realizing this idea that by moving everything to the absolutely lowest-cost supplier on the planet was the wrong way to go. So, imagine the future, as [Joe] Biden wants to Build Back Better, let's imagine that the future is more local. And we're certainly seeing this with food and other things. But imagine we could do this with durable goods as well. So, imagine that the next toaster you buy doesn't come from some overseas factory via Amazon [.com, Inc.] or some online merchant. But instead, the digital files for that toaster are propagated to micro factories all around Connecticut or New England or wherever you want to say. And the constituent parts are manufactured and then they're brought to one place to be assembled, or maybe they're brought to your house; they come to your house and you snap it together. And then the next time, anytime that part breaks in the toaster, any part of the toaster breaks, you can then basically send that digital file back to a local factory to be made. When it shows up, the next day or a couple days later, you snap it in, and your toaster works again. So, I'm advocating for this new type of design. So, that would be the way that I would propose reinvigorating labor for the new economy coming out of the pandemic and for the future.

Ralph Nader: Well, how about product obsolescence, where they literally build in an obstacle to repair, which you've experienced a lot. How do you overcome that? Apple [Inc.] apparently conceded to USPIRG's pressure by saying they're gonna provide some manuals so Apple

computers and iPhones can be more fixable by the owners. Do you buy that? Do you think that's an approach to put pressure on the companies to liberate their designers so as to improve the ease of repair?

Peter Mui: I think if it's a consumer-led issue, I think we're in trouble. I think that they're just gonna – they have the lobbyists, they have the power. I think they'll just tear us apart. What I've been working on is institutional procurement. So, I'm looking at the big buyers, like the military, like large corporations, like school districts. I was talking to the school superintendent of Pacifica School District, and she had to buy a thousand Chromebooks for her school district. And I know that we can teach the kids to repair their own distance learning tech. And so I said to her “You don't have to choose the vendor, but why don't you add to your request for quote: preference will be given to a vendor who provides us with a repair parts, diagnostic tools and service manuals.” So that they can choose to do the repairs for themselves locally rather than have to send it back to Dell in Texas or whatever to get them repaired.

Ralph Nader: Well, your idea is you have big buyers. Well, there's no bigger buyer than the US government. And we've had conferences in the past on how to make the government establish all kinds of specifications for environmental durability, all kinds of things. What are your views on using federal state and local government procurement to set the stage?

Peter Mui: Absolutely. I've presented to Alameda County GSA [General Services Agency] already on this subject. And I'm making a proposal now to a local agency about this idea that we could have me municipalities in my county, Alameda County, basically consider the same energy they're putting into recycling, put it into repair. And we'll start with something that's maybe non-threatening. So, like my best thinking as of this morning is all the staff break rooms around the county where there's a coffee maker and a microwave and a toaster oven. And if the coffee maker, the microwave or the toaster oven breaks, rather than just say, “Well, we gotta throw this out and buy a new one,” think about contacting Fixit Clinic first. I'm calling it Rapid Response Repair Mutual Aid. Think about contacting us first to consider getting it repaired rather than just tossing it as the first step. Because government has to walk its own talk, okay? So, they're telling us all the rest of us that we should be responsible and fixed up. Okay, if that's our tax dollars, if they go buy another toast oven or microwave, let's have them do it too.

Ralph Nader: Well, you know, Patagonia[, Inc.] is famous for telling its customers stop buying our products, just repair the former products you bought from us – clothing, heavy outdoor gear. And that created a minor sensation. Very few manufacturers (chuckle) or retailers advise their customers to do that. But Patagonia is something special.

We're talking with Peter Mui, the founder of the Fixit Clinic, and wants to spread the whole concept all over the country and the world, an MIT [Massachusetts Institute of Technology] graduate. And Peter, let me ask you this question. Years ago, the Swedes came up with something called the basic wardrobe. And this was for people who didn't wanna be flipped around with fashion, with having their clothes considered out of date, and having to constantly buy new clothes. So, they come up with a basic wardrobe, very functional and very durable. So, that brings it from the consumer end. Do you see your potential in people adopting this level of modern frugality. It does reduce anxiety and always having to keep up with the Joneses and go shopping and the latest fad and fashion. What are your views on that?

Peter Mui: So, sometimes I think Fixit Clinic is just my latest experiment in social engineering. And I'm with you totally on this idea. The marketing and people's sort of self-esteem is so tied

up in their consumption in a capitalist society. I don't know if I should really blame capitalism, but there's something that I'm really curious about, about that idea that people do have to constantly think about how their consumption, how their materialism places them in the world. So, I'm totally with you. I would love to find... we do fabric and textile repair. Even though we have this expertise in electronics, Fixit Clinic is kind of like improv. You never know what the general public is gonna present you with. And you mentioned Patagonia earlier. Patagonia has the largest fabric and textile repair facility in the United States – sorry, in Northern California. They have 50 people that they employ there to do nothing but repair. And they also had their Worn Wear truck where they were driving across the United States, where they would fix anything, anything fabric that people brought up to them. We held a Fixit Clinic in conjunction with them in their San Francisco store once. I have a nephew in high school who can tell from across the hallway what phone his friends are carrying. Some of us are hyper tuned to this. And I wonder about that. Now I'm curious about how we could create a world where durability, maintainability, serviceability, repairability become the things we care about as opposed to having fast fashion and looking chic and trendy.

Ralph Nader: Well, let's go into another product that's intrigued me: shoes. There used to be a shoe repair shop in every community in America--tens and tens of thousands. I don't know if there are any anymore. Why?

Peter Mui: They're made differently. I mean, they're made not to be repairable. I have a favorite pair of shoes like that, that I went to try and get resoled recently. And it was like \$80 or \$90 to do the resoling. And so labor has gotten expensive. I'm in Northern California. Granted, I don't know if there was some other place in the United States where I could get it for lower cost, but that's certainly part of the issue too, is the cost of repair relative to just buying a new one. The true thing that's going on here is we're not paying the true purchase price. The true cost of the item is not factored into the price at the moment of purchase. There are so many upstream and downstream costs that are not factored in. Certainly the downstream costs of recycling it, of trying to downcycle it into its constituent parts, certainly is not factored in. But even the upstream costs, the cost of the wars and the special interests or whatever to keep the raw materials. Right now, it's cobalt and lithium for batteries; that's not factored in when we buy it. So, until that is, I think we're gonna be fighting an uphill battle on this one.

Ralph Nader: Well, let's look at the scene around the country. I've yet to find a Fixit store operating, say, five-days-a week. There are events which you have helped sponsor where people gather in church basements or libraries as an event. And people are there who can help fix the products that the families bring in. And then in that pandemic era, there are virtual events where people can bring products in and get advice on a screen. There's one such service in Connecticut, Willimantic, and they've shut down because of the pandemic, but about four or times a month, they would entertain people coming in and fixing it in a church basement. Give us some numbers here. How many repair clinics, Fixit shops? How widely accelerating is this great phenomenon here?

Peter Mui: Well, obviously the pandemic has put a hiccup in it, but pre-pandemic, we were rocking and rolling. Pre-pandemic we were up to about 525 Fixit Clinics across the United States; those were individual events. But we were in 26 states; so, over half of the 50 states. And you know, everywhere – Missoula, Montana, Boulder, Colorado, Austin, Texas, lots of New England and Northern and Southern California and in Salt Lake City, just to name a few. The pandemic hits and obviously being up close and personal with somebody touching the same

device isn't gonna cut it anymore. So, we added these Zoom [Video Communications] Fixit Clinics first and they've just been amazing. You know, we have participants, Fixit coaches from all over the world. So, I'm friends with Martine Postma at the Repair Café in Amsterdam. I basically scheduled these things so that they were late morning in Northern California and early evening in Europe.

So, that was the start. So, we have these amazing intercontinental Fixit Clinics going on now with people bringing broken stuff from all over the world. And so, the question is, could we fix things virtually? And the answer is heck yeah. And so, we have some amazing, amazing stories. We've taught a woman to solder in Millbrae, California over Zoom. We've had people bring large things that we would be unwieldy to bring to an in-person event. We fixed a piece of IKEA furniture in Toronto, Canada. So, we've been just doing a wonderful... it's just been absolutely amazing.

Okay. Given that success, one thing we've been interested in trying to do is move the demographic down to the next generation, so, we tried to become more and more digitally native by adding a Global Fixers server on Discord and that's been even more amazing. So, all the teenagers, all the young adults are all using Discord. It's this gaming platform that we have repurposed for repair. Right now, there are 400 Fixit coaches or so or Global Fixers. They've been rebranded as Global Fixers on this Discord server and anybody, anywhere on the planet who can get on Discord can get on here and say, "I'm having a problem. Can you help me?" Just yesterday, we fixed – there was a refugee, a kid from South Sudan, who is in a refugee camp in Uganda, and he was trying to fix a Dell laptop and we were helping him on the Discord server. How cool is that?

Ralph Nader: That's better than having a manual to distribute because it's very ad hoc and focused. Have you thought of a manual, by the way, for say 30/40, of the most likely products that that could be repaired?

Peter Mui: I just did a feature for the latest edition of *Make Magazine* where I talk about some common things that we see over and over again. Hopefully, that will be a start. All these things exist out there. If you just do a quick web search, lots and lots of resources are available. And I haven't seen a need yet to try to duplicate that, especially because we have this resource now that's basically 24/7 around the clock around the world.

Ralph Nader: Well, let's say some listeners are in communities and they never heard of this repair revolution, so to speak. They've never heard of repair clinics and they wanna do something in their neighborhood or in their community. How would you help them and how can they contact you?

Peter Mui: Oh, they can immediately join the Global Fixers server. So, they can immediately – like, if there is some guy in a church basement whose job it is to fix up all the stuff that's been donated so they can sell it at the next church flea market, he should be on this Global Fixer server net. He can basically come to us and say, "Someone donated this toaster, and, you know, one side doesn't light up," and we can basically start him on his way. It's absolutely a great training resource for anybody who wants to be an aspiring repairer. And they don't have to be like that guy; they can just have something broken in their own dang house that they wanna fix and we'll help them. But, it's great for our model as opposed to the free repair model because it looks for those people who are highly motivated and have more of a chance of being the change agents, activate the change agents within individual communities who might then go to their

neighbor, be over at their neighbor's house, and the neighbor says, "Oh, my toaster stopped working this morning," and say, "Hey, I know about this whole Fixit Clinic Global Fixers server thing. Let's see if we can't fix it."

Ralph Nader: Well, let's give the website, Peter.

Peter Mui: Okay. www.fixitclinic.org. All one word, no hyphen between the X and the I on fixit.

Ralph Nader: Steve, David, pitch in. You probably have some products in your garage that need fixing.

Steve Skrovan: Well, we definitely do--a video camera that we're trying it to transfer tapes digitally and we're trying to get the video camera repaired so that we can actually transfer the old tapes that we have. And the repair shop says, "Eh, you gotta buy a new video camera." Even the repair shop said that. But I have a different question and it involves my wife's personal experience. My way, Shelley is not involved in the Fixit Clinic, but she is involved in a Repair Café. And one of the things that is attractive to her is the nature of the organization of it, which is kind of bottom up. And it's not dependent generally on any one person's individual passion or commitment. Can you talk about that kind of spirit in organization in terms of Fixit Clinics?

Peter Mui: Well, it's always hard to run a volunteer organization. And so what motivates people to be Fixit coaches or Global Fixers or something? And the best I can come up with at the moment is they're looking for the respect and admiration of their perceived peer group. So, they either wanna show off to the person with a broken thing what they know [chuckle], or what I'm seeing more and more in Discord servers, is they're showing off to the other Global Fixers how much they know, that they see that as their peer group. So, motivating volunteers is always a struggle, but this one has so many good touch points for people like feeling good about saving the environment and keeping things in service and, proper stewardship of the planet. And of course, there's any number of positive reasons why you want to be involved in something like this.

Steve Skrovan: And what you're doing is slightly different because you are trying to train--you're not necessarily always trying to fix something for somebody, you're trying to train them to fix it themselves. Correct?

Peter Mui: Well, I've often said that repair is just a serendipitous side effect of what we're doing. What we're really trying to do, like I said, is convey those critical thinking and troubleshooting skills that are oh so essential and helpful in any number of disciplines beyond repairing something. I'm just using their broken thing as the impetus to get them in the door.

Ralph Nader: Peter, do you find a difference in income levels and race and ethnicity in terms of people who gravitate to these repair clinics and cafes? Do poor people outnumber proportionately better off people or white people or African Americans? What's the demographic on this if you've noticed?

Peter Mui: Okay. So, this is a touchy subject. I live in Northern California, in Berkeley, which is a very affluent community. I struggle with bridging out past; there's a certain economic privilege associated with repair right now. Because wealthy people can afford to repair and poor people can't, and they don't have the option. And they also don't have--the skills aren't equally distributed, which is why I'm trying to convey the critical thinking skills. But let me give you kind of a long example. I don't think it'll make it onto the show. But I'll give it here for context

for future conversation. But like this person showed up with one of these subsidized cell phones. So basically, part of your cell phone taxes goes so that we have universal access to communication. We've decided that having cell phones is really important. And so, in front of the dollar store in my community, there is a person with a table offering free phones to people coming by. All right. So, somewhere--I think the federal government or maybe State of California is offering these subsidized phones to low-income people. Someone shows up at a Fixit Clinic with one of these subsidized phones. She got it because she has to get essential calls from her doctor. And she can't; it's not working for her. We find out that basically there are so many popups coming up between her; when the phone starts ringing, she can't answer the phone in time and the voicemail hasn't been set up. She doesn't know how to do that. And so, she's missing these essential doctors' calls, which is the reason why we gave her the phone in the first place, and we as a civilization. And so, we looked further and it turns out that the manufacturers of these phones, so whoever gets the contract from California or from the federal government to distribute these phones, they go to a contract manufacturer in China and say, "Give us a ton of Android phones." But the version of Android that comes on them is so filled with bloatware and is so insecure that this person's personal privacy is at risk. okay? I mean All their information could be hoovered up by any number of third parties. And so, the question you know, we have to ask a question as a civilization--just because a person needs this resource, should they have to expect that their privacy should be compromised as a result? So, this is documented; this is not me making this up. I can cite the article for you, but basically that these third-party phones, these phones that are coming to people as universal access phones, give them some level of access. But there's inequality in the society that's being promulgated by this, even though it was well-intended to begin with.

Ralph Nader: So, are you saying that poor-income people are not proportionally represented?

Peter Mui: Not at the moment. And if I offered free repair, sure. But I'm asking people to have a stake in the game. Wait, look, when they show up, we're not turning them away by any means, but I'm trying to find that thin segment of civilization, of our society, those people who are more likely to be the activists and the change agents going forward, and hopefully, there's gonna be enough of a tipping point at some point where there will be enough people in society; that attitude will be the general attitude in the society. So, anybody and everybody who needs help will have a neighbor or a friend or somebody nearby who can help them.

And you mentioned earlier about sort of the paid repair, like having repair shops. And I have never done that; I've never felt comfortable putting a financial aspect into this because a) I wanted it to be a gift to the planet. And I also want to contradict this overarching thing that we have, where everybody feels you have to pay for something. So, at least for the patron, I mean, I take grant money to do it. But at least to the person who shows up with something broken, I never want them to feel like they have to pay to be part of this process. Maybe if we have to buy an expensive part to help them, but if it's some sort of like a thermal fuse, which costs under a dollar or replacing batteries in something for somebody, we're happy to do that for free.

Ralph Nader: David?

David Feldman: This is so great. Thank you. I wanna ask you about our schools and how to motivate parents to want this stuff taught starting in kindergarten. Because when we talk about our schools, it's always about increasing our child's earning potentials, but never their savings potential. What nobody says is, it's not how much money you earn in life, it's how much money

you save, giving to charity, of course. But so, I know you're from MIT, but how much do you save tax free each year by fixing things?

Peter Mui: I have no idea. Me, personally or for people who do all these...?

David Feldman: What do you estimate you save each year by mending your own clothes or fixing your own toaster? These are tax-free savings.

Peter Mui: I have no idea. And I'm a hoarder. So, I bicycle around the streets of Berkeley and I see a toaster oven sitting on top of a dumpster on a trash day and I'm like, I can't believe they're throwing this out. And I bring it back to the house; it drives my spouse crazy. She tells me everything's gotta pay rent [chuckle]. But I'll push it back on you and ask like, from your perspective, do we live in a world of abundance or a world of scarcity?

David Feldman: Well, yeah. It's a world of abundance. I am ashamed to tell you what I pay to keep stuff in storage that I don't need.

Peter Mui: Right. And so, this year, I'm playing with this term I'm calling "consumer trifles." This speaks to this idea that we're not paying the true cost of the item when we purchase it at the register. If we truly understood, if we were paying the true purchase price, we would covet these things like in no tomorrow. Remember back in the old days when people had stereo systems in their house and the big thing you were scared of is if a burglar broke in, they'd steal your stereo or they'd steal the car stereo out of your car, right? Because it was expensive. Okay? Now that stuff is just toss-off. People don't care anymore. Given the functionality, it seems really weird that the price of those things has become – it's down in the noise - and it speaks to us.

We're affluent, okay? And so, I'm with you that we live in a world of abundance. It's just very, very, very lumpenly distributed at the moment, that abundance. If you ever wanna do like a Fixit radio show thing with me, Ralph, I'm happy to do it, okay? We can do like *Car Talk*. You can be Tom and I can be Ray.

Ralph Nader: [laughter] Give me the design. I can't imagine my role here other than I keep things very long and don't have to buy much, [chuckle] but that's not very helpful to the repair effort.

Peter Mui: Look, anybody here is welcome to bring anything broken, okay? Ralph, you would be like a celebrity repair. When I've been approached by those TV producers about a Fixit Clinic TV show, they're talking about, "Oh, let's go fix Beyoncé's dishwasher." Okay. And I'm like, let's go fix Ralph Nader's television or something like that. I'm happy to do it.

Ralph Nader: I'll tell you one thing you can't fix is General Electric [Company] light bulbs that are terrible. [chuckle]

Peter Mui: Well, they've been surpassed by LED [light-emitting diode] light bulbs, you know?

Ralph Nader: Over time, that was one of the biggest rackets going back to the 1930s, talk about built-in product obsolescence.

David Feldman: Every school should be teaching this starting at kindergarten.

Ralph Nader: Yeah, you're right.

Peter Mui: I would like repair to be the new shop class. So many shop classes have been gutted across the country.

Ralph Nader: Have you connected with Associations of Home Economics Teachers?

Peter Mui: Well, okay so, do we do it through the science teacher? Do we do it through the environmental science teacher or, recycling teachers or whatever? Like there's so many – I've been trying to break into this for a long time. And finally during the pandemic because people have gone online. So, right now, I am tutoring nine high schoolers from Irvington High School in Fremont, California. They need 10 hours of community service credit to graduate, and they've chosen to use repair as that. So, right now, I am shipping a broken KitchenAid mixer from Piedmont, California to Fremont, California, so one of these kids can repair its gearbox.

Ralph Nader: Nice. No, I'm talking about the home economics teachers that are still around, actually the national association of home economists. That should be right up their alley.

Peter Mui: Great. I mean, tell them about it. You know, I'd love to.

Ralph Nader: Check them out.

David Feldman: I'm sorry to belabor this, but it's so frustrating because the key to the universe is in fixing your own stuff; it's the key to education. It's how you open up – it's how you turn kids into inventors and thinkers, hands-on.

Peter Mui: I'm with you. I'm biased. But I think every maker – there's this whole maker movement that's been going on for a long time. And I think that every maker started as a fixer. Fixing is the on-ramp to making. It all goes back to that George Bernard Shaw quote about the reasonable man conforms to his environment, the unreasonable man doesn't; therefore all progress depends on the unreasonable man.

Ralph Nader: You've heard that before, haven't you, Steve? [lots of laughter-Ralph and Steve]

Steve Skrovan: I've heard that. Peter, I can't help asking in a self-serving way, have you seen the documentary about Ralph?

Peter Mui: I haven't.

Steve Skrovan: Wow. Well, take a guess at what it's called.

Peter Mui /Steve Skrovan: *An Unreasonable Man.*

Peter Mui: Okay.

Steve Skrovan: And that quote is the first thing you see in the film.

Peter Mui: Wow.

Steve Skrovan: So, check it out. But yeah, that kind of rings true. I wanted to ask Ralph. Where do you get your manual typewriters fixed?

Ralph Nader: There are usually people who fix manual typewriters, Royal typewriters, Olivettis, Underwoods in states and cities around the country. They're dwindling in number, but you can still find them and they have all kinds of parts and just love to fix these manual typewriters.

Steve Skrovan: Do you think that's a cultural thing that has to do with the love of the typewriter machinery, unlike a toaster, which is just an appliance?

Ralph Nader: Yes. And the evidence of that is they are collectibles. There are people who collect vintage typewriters going back over a hundred years. So, there's that sort of emotional tie to it. Plus the people who fix it are usually quite elderly. And they see it in a way as a part of a

frugal economy. It certainly is when the lights go out and you can keep typing unlike your computer counterparts.

Steve Skrovan: Right, right. Except you're typing in the dark. So, I don't know, but you're good. You don't need to see the keys just like Stevie Wonder.

Ralph Nader: No, it is interesting that – that's right. If you don't know this, Peter, there's still these shops all over the country that you take your typewriter to and they fix it and it costs more than what you paid for the typewriter years ago, obviously. But they really are eager and they don't make all that much money because there are not that many people who bring typewriters. But they have ribbons, they have parts cleaning agents, and when you get it back, it's like sparkling new.

Peter Mui: Yep. No, I live in Berkeley, which has the University of California, Berkeley and there is Berkeley Typewriter right on University Avenue that does the repair of manual typewriters. You bring up an interesting issue though. You know, when you were trying to talk about planned obsolescence earlier, our experience with Fixit Clinic is that the best sewing machines probably come from the 1950s to the 1980s. And what changed in 1980s is that they started using plastic gears inside. So, an old Kenmore, an old Singer [Corporation], or there were any number of Japanese post-World War II sewing machine companies that came out. Those sewing machines are bulletproof. They are built like tanks. They're all metal gears inside. And yeah, they can only do forward, reverse and zigzag, but that's most people need anyway. And, and they're credible, like they can sew through multiple layers of denim. Some of them are so powerful they can sew through leather for a home sewing machine. And the sad thing for me, right now, one of my laments is that people are throwing these old sewing machines out because they think they're old fashioned. But what happens is they seize up because they have all metal parts inside, but a little WD 40 and then following up with some light sewing machine oil and that thing would run forever. And so, I'm trying--this is my own personal vendetta or whatever--every time I see an old sewing machine out on trash day in Berkeley, I bring it home, much to my wife's dismay, because I wanna try and keep these things in service because you can't make them; they don't make them anymore.

So, that whole thing I talked about, this idea of the future of American manufacturing, I have a whole program going with colleges and universities to teach the new type of design for manufacturing, which is local, like I expressed before. But it also encapsulates some idea of how do we make things so that they're designed for durability from the get-go. How do we take one of these classic designs? You mentioned toasters as not being classic. There actually is this classic Sunbeam [Products] toaster that they stopped making in 1997 called Automatic Beyond Belief. It levitates the toast down and it levitates the toast up. There's no handle. It's just the weight of the toast makes the thing go down. They stop making it. So, I would love to revitalize that design, use that as the basis for a university open-source toaster design challenge. Can we remake this toaster? And then, over time, how much of that toaster can we manufacture locally, source locally at least in the United States to begin, but maybe it becomes regional. And then maybe you have toaster variations on that design. But it's all digitally captured so that we can, over time, improve it and make it even better than it was when they stopped making it in 1997.

Ralph Nader: You remind me of an article I just read in the *New York Times* that talks about durability and reliability. The Webb Telescope that just was sent up to about a million miles now from earth was described by one of the engineers who worked on it. And he said in the last month before they launched it, 344 things could have gone wrong, any one of which would've

doomed the project. Any one of which. This gives you an idea of what quality control can attain when there's a mission in the back of it.

Peter Mui: Absolutely. Well, and continuous integration. Now, without that, they have a one off and they neglect those situations like with the Hubble [Space Telescope], remember? They made a mistake where the whole mirror was off and they had to put in corrective lenses after the fact. That was a big oopsie. Or, that other mission to Mars that crashed into Mars because they were using the wrong units; they were using English units instead of metric units to calculate some velocity. And so, the thing went in way too hot. It happens at all levels [chuckle], but if you try and do quick and dirty, cheap experiments, at least you can recover from those. You know, for my crowds, these SpaceX launches and SpaceX landings, they're like porn for the tech crowd. We're always watching those. We're fascinated that we can do that as a civilization.

Ralph Nader: Yeah.

Steve Skrovan: One more thing, Peter.

Ralph Nader: Go ahead.

Steve Skrovan: Just gave me an idea for correlated Fixit Clinic. And it's the relationship Fixit Clinic where you have psychologists come in and they give you advice on how to repair your relationship because your spouse keeps bringing in broken appliances from the dumpster.

Peter Mui: [Laughs] Obviously, I'm invested in not having that go on, but I have thought about a Fixit Clinic confessional booth. So, we never short circuit the owner's story about the item, i.e., what it means to them. The provenance is really important for two reasons. One, because there is certainly that cathartic aspect of it, whether it gets fixed or not. Oh, so that's another important reason why we want people to materially participate in their own repair, because if/when the thing starts working again and they fixed it, it's like Easter. They can't believe that they did it. And so, why would you want to ever fix it for them when there's an opportunity that you could actually give them that empowerment; you could convey that empowerment along with the critical thinking skills?

Ralph Nader: It's such a key point. That's such a key point, yeah.

Peter Mui: I've had the idea of a Fixit clinic confessional booth where people could, in the spirit of, the TV show *MythBusters*, just like an *Antiques Roadshow*, where people talk about how came to this item. I've wanted to have that be, how did they come to this item and how did this item come to this place? And then the final thing is that often when they tell us that, that gives us the hints we know to fix it. So, if they come to us with a microwave oven and they just say, "It doesn't work," [that doesn't help] but if they say, "Well, for a long time, I used to be able to hold this corner in and then it would work." And I'm like, wow, that tells us everything we need to know about what broke and how to fix it. And that's why we would not be successful if we just tried to bring in everything that gets donated to a Goodwill, our repair rate would go way down, because without understanding how it was used and stuff, that makes our ability to fix it much, much lower.

Ralph Nader: You raise another problem just very quickly. People who have like stoves for decades and other products and something goes wrong and the person they call says, "Well, they don't make those repair parts anymore, so we can't help you." I suppose your answer would be, well, there could be a factory that does make those repair parts.

Peter Mui: Yeah. If we started a Right to Repair, in my dream of dreams, this Right to Repair legislation that's going through the federal government right now and through the many states would include this idea [that] if a manufacturer stops manufacturing something, once they stop servicing, or you can't get information from them, all of the documentation the manufacturer has on that item becomes open source; it becomes public domain--all the schematics, all repair manuals, all the service manuals, all of the supplier information--so that we could go back to the supplier overseas and say, "We need this motor again for this fan," or something like that.

Ralph Nader: That's a very good idea. A lot of products like that people have had for years, including furnaces, for example, and they just say, "Well, we don't have a spare part." Or refrigerators, "we don't have the spare part." And people say, "Okay, well, it's gone."

Peter Mui: Ralph, the [US] Navy is trying to keep 60-year-old airplanes in the air. They are having this problem too. Even though Raytheon, General Dynamics [Corporation], they don't have the part. Or this is a big problem in container shipping. So, you buy a container ship. It comes from the shipping yard. There's some component deep in the engine room that fails after 10 or 15 years. The ship is still in service, but you can't leave the next port if it has to do with the propulsion, crew comfort or crew safety. So, it's not just individual consumers. This is across the whole ... this speaks to the built world we have created at the moment. And it's a built world that is really sort of sucking the planet's natural resources dry as we move stuff to the landfill prematurely.

Ralph Nader: Yeah. And Apple has got all kinds of billions of dollars and they don't pay much attention to what happens when their products are dumped. Then they're separated out by workers in third-world countries who expose themselves to toxic metals. But they spent \$90 billion last year with stock buybacks. So, that's in your corner, Apple. Put the pressure on them, Peter.

Peter Mui: Yeah, look, I've wanted to have repair Fixit Clinics down at--the Cupertino Public Library has contacted me about having Fixit Clinics there.

Ralph Nader: Oh, good.

Peter Mui: So, it's easy to pick on them as a demon, but as much as I do this, I think about that Pogo cartoon that says we have met the enemy and they is us. If we really thought Apple were so nefarious, we would choose not to buy Apple products. But we as consumers, I'm not giving us a break on this, okay? We have to accept that we are complicit at some level, because we continue to choose their products and pay the outrageous prices for them.

Ralph Nader: You all have that personal data free in Facebook.

Peter Mui: You have no idea [chuckles]. John Deere and the farmers right now John Deere, modern John Deere tractors and combines are hoovering up all sorts of data about the field, not just about the tractor and the tractor but how much grain you're putting down, what your yields are when that stuff is harvested, and they're taking... they've actually argued in court; they're saying the farmer doesn't actually buy the tractor anymore. The farmer is just buying a license to operate the tractor.

Ralph Nader: Yeah. Well, thank you very much, Peter. We've been talking with Peter Mui, who is the founder of the Fixit Clinic and is willing to lend a hand anywhere in the world with this virtual technology that we have. And he has evidence of how well it's worked. And before we

close, Peter, could you give that website again, so people who want to start something in their own community can get a leg up?

Peter Mui: Sure. It's fixitclinic.org. fixitclinic.org. FIXITCLINIC.ORG; All one word, no hyphen between the X and the I in Fixit. And the next Zoom Fixit Clinic is [Saturday] February 12th at 1:00 PM, Eastern Standard Time, out of Harvard University. So, Harvard is hosting this one, and this is part of the whole design effort to teach colleges and universities how to design for durability, maintainability, and repairability. But anybody on the planet is welcome to participate as an observer. And if you want to see this in action; I'm trying to create the greatest show on Zoom. Can't miss, must see, live interactive programming on Zoom. Can they fix it, okay? What will we see and can they fix it?

Steve Skrovan: Excellent.

Ralph Nader: That's fantastic. And on that note of precision, thank you very much, Peter Mui.

Peter Mui: It's a pleasure to be here with you.

Steve Skrovan: We've been speaking with Peter Mui. We will link to Fixit Clinic at ralphnaderradiohour.com. Let's check in with our corporate crime reporter, Russell Mokhiber.

Russell Mokhiber: From the National Press Building in Washington, DC, this is your *Corporate Crime Reporter* "Morning Minute" for Friday, February 4, 2022; I'm Russell Mokhiber. Amazon is quietly funding high school classes that teach students how to work at Amazon in a California county where it's already the largest employer. Students at San Bernardino's Cajon High School have been offered a series of Amazon Pathways courses sponsored by the company since 2019. That's according to a report from *Motherboard*. The courses feature a curriculum that teaches them, among other things, how to motivate employees without giving them raises, while also increasing worker efficiency. The \$50,000 grant provided to the school also coaches Cajon High teachers on how to establish and develop an effective industry partnership with Amazon. Students enrolled in the classes are also required to do work-based internships at Amazon or a different logistics company. For the *Corporate Crime Reporter*, I'm Russell Mokhiber.

Steve Skrovan: That's our show. I want to thank you our guest again, Peter Mui. For those of you listening on the radio, we're gonna cut out right now. For you, podcast listeners, stay tuned for some bonus material; and we got a bit of it with Peter Mui; we call that "The Wrap Up". A transcript of the show will appear on the *Ralph Nader Radio Hour* website soon after the episode is posted.

David Feldman: Subscribe to us on our *Ralph Nader Radio Hour* YouTube channel. And for Ralph's weekly column, you can get it for free by going to nader.org. For more from Russell Mokhiber, go to corporatecrimereporter.com.

Steve Skrovan: The American Museum of Tort Law has gone virtual. Go to tortmuseum.org to explore the exhibits, take a virtual tour, and learn about iconic tort cases from history. And be sure to check out their latest program on how advocates are going to court to confront the climate crisis. All that and more at tortmuseum.org.

David Feldman: Ralph wants you to join the Congress Club. Go to the *Ralph Nader Radio Hour* website, and in the top right margin, click on the button labeled Congress Club to get more information. We've also added a button right below that with specific instructions about what to

include in your letters to Congress. The producers of the *Ralph Nader Radio Hour* are Jimmy Lee Wirt and Matthew Marran. Our executive producer is Alan Minsky.

Steve Skrovan: Our theme music, “Stand Up, Rise Up” was written and performed by Kemp Harris. Our proof reader is Elisabeth Solomon. Our associate producer is Hannah Feldman. Our social media manager is Steven Wendt.

David Feldman: Join us next week on the *Ralph Nader Radio Hour*. Thank you, Ralph.

Ralph Nader: Thank you, everybody. And everybody who wants to join this effort, go to the website that Peter Mui gave you.

[57:52] music “Stand Up, Rise Up”

[Audio Ends]