LoT Co-Lab 17 Environmental Impact Transcript

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0:00:01.4 Amanda Miller: Hi everybody, my name is Amanda Miller. I use she/her pronouns. I'm joining you today from South King County, Washington. I run a few tool libraries, work with the National Tool Library Alliance, wear a few different hats, but I'm really excited to be working with the Co-Lab this year and that this is maybe our first. Is this our first or second? This is the second one. First one? All right, cool. So this is a great way to kick off the year. And if you're just joining, you can introduce yourself in the chat where you're from or anything you'd like to there. So we have a lot of information, probably some technical things. Feel free to take notes or put your questions into the chat. Leanna Frick, if you don't know, is amazing and going to be helping us on all of the ends. So all the kudos to her. And with that, I mean, this session is huge, so I don't wanna mince words. We're going to hear from amazing leaders and be able to discuss, hopefully, pretty freely, a lot of the environmental impact, calculations, trackings, and take a little bit of a deeper dive into environmental causality for the library of things and how you can engage with that.

0:01:27.4 Amanda Miller: Impacts have many different descriptions here, but focusing for the library of things are roles in the reuse, repair, sharing, solidarity, circular, all the buzzy words, all the economies. It's a new venture, so it's not as easy and straightforward. The framework is being introduced, being innovated on, and I'm really excited to hear all of the great sharings from the participants and the leaders today. So I just wanted to frame this as well with a context. In the Pacific Northwest, we had a big windstorm yesterday, and it seems like it's happening more and more often, but it came to me that this is actually a great context for framing this. The privilege that we have to actually be able to have this discussion is a great way to look at the importance of environmental impact, because we can actually use that privilege, whether it's access to the technology or access to these great resources, to foster the change that is truly needed to impact those that are not choosing to be part of our current economies. So there's a lot of discussion and talk, and you're probably already aware of environmental impacts that you have on the day-to-day.

0:02:45.7 Amanda Miller: But thinking of the seeds that we're planting for the shade of future generations is a great way to explore what environmental impacts can be. So with that, I want to introduce our first presenter. You probably know him if you have researched libraries of things. Gene Homicki is an amazing person. I'll let everyone kind of introduce themselves, give their credentials, 'cause I don't want to be a fanboy for everybody. These are some of my favorite people. So Gene, you wanna give a shout out, give an intro?

0:03:23.1 Gene Homicki: Absolutely. Thank you, Amanda and Leanna for organizing this amazing event. It's really appreciated and really important. And it's great to see so many people here, including a number of familiar faces. So for those people that don't know, I'm Gene Homicki, I'm a co-founder of the West Seattle Tool Library, although I'm on the east coast of the U.S now, and I'm also the co-founder and CEO of myTurn. MyTurn is a public benefit corporation with a mission to increase affordable access to resources while reducing consumption and waste, typically of those very same resources. We help organizations from tool libraries and libraries of things to businesses and governments track, manage, and expand reuse programs of all type. But our hearts are really with tool libraries and libraries of things. Today, I'm gonna talk about why measuring impact is critical, what we should track, and hopefully how we can increase our collective impact. So, product reuse has an enormous environmental and social impact. But if we don't measure it, we can't really prove it. So we wanna show the environmental and social benefits of sharing and reuse with real data, and tracking that impact and reporting on it can allow that.

0:04:44.3 Gene Homicki: We also wanna optimize and scale reuse by identifying what works and

improving access to items, and learn from things that maybe don't work as well. We want to inspire behavior change by helping people see the impact of sharing and to encourage them to participate more. Impact reporting can also help us secure funding and grants. Organizations with strong data and that can show that data and back it up are more competitive when going after funding. And also, we wanna shape policy. It's slow, but governments are increasingly integrating reuse and specifically product reuse into climate, circular economy, and zero waste strategies. But they really need solid data to justify it. Without accurate measurement, it's harder to expand, fund, or integrate reuse into larger environmental efforts. So what can and should we be reporting as reuse and repair organizations? At a basic level, we need to track core environmental impacts, like how reuse can reduce emissions, conserve resources, and divert waste from landfills compared to purchasing new items. We can also look at the secondary impacts, the benefits that come from how borrowed items are used.

0:06:07.1 Gene Homicki: Tool libraries and libraries of things don't just reduce consumption, although that's usually important. They also enable projects that people and groups might not have been able to afford to do otherwise. This can include energy efficiency retrofits, environmental restoration projects around community, to disaster preparedness and recovery. As Amanda was mentioning, with windstorms, and we saw disasters, I've seen hurricanes and other disasters often caused by climate. With prep beforehand, we can reduce damages that actually happen from a number of those disasters, which reduces the resources needed to basically build back, and then also use shared resources like tool libraries and things from libraries of things to help with the repair. And beyond the numbers, stories from members can bring impact to life. Data is powerful, but seeing how a borrowed tool helps someone make their home more efficient, build or repair a piece of furniture rather than purchase a new one, or improve a community makes the impact real. So it's really important though to be accurate and transparent. If we want reuse to be taken seriously, it's critical that our impact reporting is credible, conservative, and transparent.

0:07:38.8 Gene Homicki: I personally recommend we try to underestimate savings rather than over-claim. Be transparent about our methods and assumptions so they can be double-checked and trusted. Use the best available data we can. I know sometimes that will mean using any available data, but we'll hear a little bit more about things like lifecycle assessments from the next speaker that can provide some of the most accurate data. And there are also other ways to estimate what resources went into manufacturing an item, like emissions factors and weights that can be very accurate, as Chris will talk about in one of the later talks as well. We also need to account for trade-offs. So where the same person borrowing the same item many times may lead to actually reduced savings due to the transportation picking up and returning that item. And we also want to continuously improve. As better methodologies emerge, we wanna refine and rerun our impact reports. Essentially, we wanna make sure that our impact data is as accurate and defensible as possible so we can confidently report positive impacts.

0:09:02.1 Gene Homicki: So let's take a look at some of the many, many complexities of accurately calculating the difference between purchasing versus borrowing items. So for example, when someone purchases an item, all of the emissions and resource use from manufacturing that items should be fully counted towards their use of it. From the raw material extraction, manufacturing vehicle supply chains, transportation, get that item to warehouses and eventually to them, storage of the item along the way. And they'll typically make trips, one to purchase the item, and especially in the case of things like electronics, another at the end of its lifetime to dispose of it. Now compare that to, say, five people borrowing the same item. Instead of five separate items having to be manufactured, only one needs to be produced. So the emissions and resources that went into four of those copies are avoided. However, the impact from transportation can depend on

borrowing behavior. The first round trip per person is comparable to purchasing as we described, but each additional trip can lower the total savings because of that extra travel. In some of the reporting that some of our customers have done, it is typically much less than the resources that went into that manufacturing of the items, but they should be taken into account to avoid over-counting and over-reporting.

0:10:32.1 Gene Homicki: So the emissions from the actual item, from usage of the actual item, even retail facilities versus libraries of things and tool libraries, mostly offset. However, there are quite a few complexities. And then also, most importantly, the more people that share and reuse an item, the greater the savings. So, to make tracking these types of impacts easier, we're launching a myTurn Impact Dashboard. So we wanna give you actionable data so that you know what you're doing is working, what your positive impacts are, and where you can improve. For emission reductions, we're looking at the savings from reuse compared to purchasing new items, as I just discussed in the previous slide. We have sample emissions data for many different item types in myTurn, and that's coming from existing partners like the Edinburgh Tool Library, Circular Library Network, and we also have pointers to tools available from US EPA and UK governments for local and regional data on basically emissions and resources that went into manufacturing items. We're prioritizing accuracy and trying to err on the side of underestimating savings so that you'll have the ability to take multiple trips for the same item into account, and looking at configurable lookback periods.

0:12:07.8 Gene Homicki: So we know that some organizations that have done some calculations already have an embedded assumption that an item would be repurchased every year. We wanna also support looking at item lifetime or custom time frames for that lookback period. Then we also support item usage surveys. These allow collecting real-world data on how borrowed items are being used. For example, some of our customers report on emission savings from reuse of their own items, but also on how those items contributed to savings in building energy efficiency retrofits. Literally right now, while I'm talking, we are pre-processing data from the literally many millions of items that have been borrowed and tracked via the myTurn platform to get ready to release that first version of the Impact Dashboard. Our goal is to help organizations, again, more easily track and communicate their impact so you'll be able to report on data from your first loan using myTurn, and then can also refine that reporting going forward. Before I wrap up, I also wanna talk briefly about what we already know about how we can increase impact. So, growing participation by making borrowing and reuse easier, more visible, and accessible, we increase the number of times items are used, which are going to increase the savings.

0:13:46.1 Gene Homicki: And on that topic of visibility, telling your stories, using visuals and real-world examples to make the impact more tangible, and hopefully you'll do a better job than I've done in this text-heavy presentation so far. Expanding access, adding pickup locations, lockers in multifamily buildings, and partnerships to bring access to items closer to where they're needed and where they're used can reduce that travel time, increase that participation I mentioned. You also wanna extend item lifetimes. You can do that with regularly scheduled maintenance to keep those items in good shape in the first place, repairing items so that way to keep them in use longer. And also, when purchasing items, picking more durable and repairable items that will stay in use longer. You can also start with secondhand items. That reduces emissions even further. Going back to that example, with myTurn, you'll have the option to not count the emissions from that original item against your organization's emissions if it's marked as donated or purchased secondhand. We need to actively show why reuse matters and to make reuse and sharing the norm. We'll go into this a bit more at the end, but we wanna know what do you need to tell your impact story.

0:15:27.0 Gene Homicki: We wanna hear from all of you, both during this session and in ongoing conversations. Do you need stats and data consolidated in one place? That's what we're aiming for with our Impact Dashboard. Visuals and infographics to make reporting more engaging. Insights, example reports, additional resources. Basically, let us know because we want to basically do everything we can to amplify what you're doing, amplify your impact, and basically increase reuse and sharing. I also have a couple of examples on the next slide of what some organizations have put out, and otherwise.

0:16:20.0 Amanda Miller: That's a great visual to end on there, Gene. Did we lose you or did I get disconnected? Is it me? I think it's having a little bit of...

0:16:34.8 Gene Homicki: Oh, it is. Yeah. Actually, my headphones decided to disconnect at the last moment. That's the last thing to wrap up. I just wanted to say that basically, by measuring our impact accurately, increasing participation and sharing results, we can ensure tool libraries and libraries of things aren't just great community resources, but key players in climate action, waste reduction, and circular economy. So thank you all. Sorry for that little glitch at the end, and thank you all for coming.

0:17:09.3 Amanda Miller: Thank you, Gene. That's just a mountain of data, and I wanna jump over to Laura, but I wanted to also address the chat.

0:17:16.6 Gene Homicki: All right. Over to her.

0:17:18.4 Amanda Miller: Oh, am I not going?

0:17:21.7 Gene Homicki: No, we can hear you. I think it's just...

0:17:23.1 Amanda Miller: Okay. Sorry. [chuckle] Okay. Somebody did mention the WARM model from the EPA, and that is a great resource. It was intentionally left off of this presentation because it is a whole other tool to possibly explore, and we don't know how long we might have access to it now that there's things changing. But there's also some limitations with that WARM model. I'd love to discuss maybe a little bit later. I have used that, and it's very interesting, but it is very prevalently used by municipalities and governments to find data. So it is certainly something that we need to discuss in this realm, but like I said, it could be a whole nother presentation to try to dissect and get information out of it. So we hope to try to give you guys some actionable resources and to present things as well that were coming up in a thoroughly vetted way. So like Gene mentioned, trying to get accurate information, trying to get the most precise information is definitely appealing. So let's come back to talking about that tool, but let's talk to Laura. Thank you for joining us, and I'm excited to hear you. And I know you're sick, so no judgment. This is a safe space. We're all friends here, but thank you guys.

0:18:50.1 Laura Novich: Hi. Thank you. Yeah. So sorry my voice is a little out of whack, so it's a little hard to speak, but bear with me. It just sounds like I'm very nervous. So I'm Laura Novich. I'm a partner at Hyloh, which is a materials research collective, and I'm also a co-founder of Untangling Circularity, which is part podcast, part content creation, membership engagement, and community building in the circular economy. Kind of a few different things. Amanda's actually been on our podcast, so if you haven't listened to it, you should definitely do that. So the work that I do is in the end of life of products and materials, so reuse, repair, recycling, and how you quantify that in a hyper-local scale. And so some of that doesn't necessarily mean just like a one-for-one or like one shirt is, you know, X environmental impact. A lot of it is also measuring behaviors and how that fits

into certain systems and what those systems look like. And so one of the things that I've done is I've built a reuse impact calculator for the Department of Sanitation in New York City. I'm in New York City, so here where I am. Sorry. Hopefully my headphones actually cut some of that sound out, so apologies.

0:20:08.0 Laura Novich: So I've built an impact calculator, and what it is is a tool that combines a comprehensive set of product categorizations along with weights, average weights, and then material compositions, and then using the WARM model for determining what those impacts are. Cami made a note that she's right, WARM is terrible for reuse and repair for consumer goods. It's fine for like construction demolition, but not for like clothing and stuff like that. So the overall goal of this tool is to help provide a universal language for products that are being reported from various different, you know, hyper-local organizations that are all working on reuse so that you can appropriately compare all of their data to each other and ultimately determine what the environmental impacts are of all of those products. So I'll explain a little bit about how DSNY uses it. It's like a case study here. They use the tool, it lives beyond their firewall, so it's not accessible to the public unfortunately. But the way that they use it is that they run a program called donateNYC, which is a network of non-profit reuse organizations in New York City, and those organizations, in order to be one of the requirements of being a member, is that they provide their data to DSNY.

0:21:22.8 Laura Novich: So their data is, it varies on how, like what it is. If they are a large reuse organization like Goodwill or Salvation Army, it's what they've sold. If they're a social service organization, it's what's come in or what they've redistributed to clients, kind of varies on the spectrum of how their data is managed. And then, the data comes in, and how the data comes in is that it's also very, very, very well there, very... So some organizations might send them a list of, you know, their data is five bags of clothing, and then some organizations send you a very detailed list of what those products are that they've resold or redistributed. And so then DSNY has all of this data, and it's hard to kind of navigate and translate that. And so what this tool is set to do is really translating all of the data that's coming in of these different products that small organizations are using or are putting in, and then translating it into a more cohesive, comprehensive, universal language in there. So removing some of that subjectivity and creating more of a systematic way of looking at the product.

0:22:39.7 Laura Novich: And so, part of why DSNY wanted this was because they're looking to reduce their municipal solid waste, right? And so reuse is a way to do that. They physically want less waste being picked up by them and sent to landfills. And so they want to support the reuse sector and understand it more. And kind of what Gene was just saying before, like you can't manage what you don't measure. And so they wanted to also be able to understand what all of the organizations were diverting and looking at what those products were as well. And so, in addition to just having the weight and environmental impacts, they also wanted to have a landscape of it. So they wanted to see what it looked like in different areas as well so that they could work with different programming too. So like if, for example, in this tool, you can also set like where the locations of certain organizations. So you'll know if clothing or textiles are being reused by certain organizations in, let's say the Bronx.

0:23:47.3 Laura Novich: I live in the Bronx, I'm biased to that. So say it's in there, right? And maybe there's a desert of textile reuse in Queens. Maybe they're gonna start issuing more programming in Queens to up some of their textiles versus maybe the Bronx has enough, so they're okay for that. And looking at all of the product categories to kind of make those determinants. So that's kind of how they're using it. And again, it is by their firewall, but we are trying to build one in Washington that will be accessible. It's mainly for small organizations that are kind of doing it their

own way. Might not have the funding to even support, use any other type of programming or software. They're super small, right? But they're still really important. And we still want all of that information. Again, I'm gonna say what Gene said too, just because we can't capture it doesn't mean it's not important. And we know that it's happening. And so really one of these goals too of the Reuse Impact Calculator in general is to support all these really small organizations that cannot necessarily do that on their own, but we know that it's happening and we want to provide additional support and voice for them. So yeah, that's what the Reuse Impact Calculator is. I feel like there's probably a lot of questions, so I'm happy to answer those afterwards.

0:25:18.9 Amanda Miller: Laura, I just wanted to ask if you could maybe talk a little about, like we mentioned the life cycle analysis or life cycle assessments. I know your background is in that too. And I think that helps to give some context because we talk about embodied carbon is something that doesn't mean something, but we talk about water, we talk about air quality and particulates and things like that too. So could you do a little bit of a deeper dive into that and then we're going really well, so that's good. [chuckle]

0:25:52.8 Laura Novich: Yeah, definitely. So the way that the background data on the RIC is that there's categories of products. So we use the global product classification system. And so that's a tiered system, so it's like a genus, species type of genus, like species, that type of structure. And so, what we did was we kind of condensed it into smaller categories, not using thousands of them. And then in there identify like what those categories would contain. So if it was like small appliances, well, what would small appliances be? A toaster, a microwave, maybe a blender, something like that. And then, from there, we found samples of average weights and then material compositions. And then from that, so going down this line, it's that each products then had a material composition and average weight. And then with the material composition, we associated it with a WARM model emissions factor based off of the material types that they had in there. Because the WARM kind of is terrible when it comes to certain products, it was really hard. And we had to use some of our like material background to determine what like a textile would be 'cause in there they only have carpet and that's not what cotton would be. So we were just kind of ad-libbing really how that was going because it was better to have something than to have nothing.

0:27:21.3 Laura Novich: And also DSNY was using WARM because that was the measurements that they were using across all of their different organizations throughout their agency. So they wanted to maintain the type of calculation that they were using. But so then, what we ended up doing was we did update some of the products to get better LCAs to determine a more specific emissions factor for, we did it for clothing, for all the different clothing types, for textile, and then also for supply... Sorry, surplus products like a diaper, right? You can't reuse a diaper, but you can reuse surplus items that were potentially intended for a landfill. So DSNY handles a lot of surplus items as well. So we were looking at that. And so, the LCA comes with a much more specific emissions factor, kind of what Gene was talking about too. Like, you know, if it's specific to New York in New York City, you kind of have a better understanding of what that LCA looks like in terms of like what all of the parts of reuse clothing, for example, like how that would exist. So that was kind of the background of what the impact calculation is in the background.

0:28:44.8 Laura Novich: But really what the impact is, is it's like for a product, it's the material composition, which has a emissions factor, and it's like times weight, and then like a little bit of extra stuff. But in theory, that's really the simplicity of what the calculation is in the back. This also was built to be updated constantly. There was no like set type of LCA work in here. It was meant to be updated for whatever new, more advanced or more like, you know, complete LCA or emissions factors were identified by anybody or, you know, institutions or anything. That was what the goal

was here. It just was setting some type of baseline so that we could keep building from there and having more work in there. Yeah.

0:29:41.5 Amanda Miller: Yeah, that's great.

context.

0:29:42.3 Laura Novich: I hope that helps somehow.

0:29:44.4 Amanda Miller: No, that's wonderful. And I come from a background of supply chain logistics, working with manufacturers firsthand. And I was really shocked when, like, I learned how global supply chains really work. They don't teach that anywhere. They go out of, they, the larger they, we as a society go out of our way to really supplant that. But it's actually a great transition because I happen to know that my friend Chris in Edinburgh has a great example of how to summarize this and relate it to the work of tool libraries and libraries of things. So I'm super excited that you could join us. What time is it there, Chris?

0:30:31.2 Chris Hellawell: It's 9.30.

0:30:34.1 Amanda Miller: 9.30.

0:30:35.3 Chris Hellawell: One thing I'm just, apart from the fact that I'm also calling from pre-color Scotland, apparently.

0:30:43.4 Amanda Miller: Apparently. [chuckle]

0:30:45.2 Chris Hellawell: Yeah, it's terrible. My wife, as she was walking out of the door to go to a choir practice, said, "Oh, I've booked a grocery delivery for between 9:00 and 10:00. So I might need to run off for two minutes and hurl a load of groceries on the kitchen floor and then run back in.

0:31:02.8 Amanda Miller: We're all humans.

[laughter]

0:31:05.1 Chris Hellawell: I'm sure... Yeah, I'm sure there's things you can entertain yourselves with for two minutes.

0:31:11.7 Amanda Miller: Awesome, well, thank you.

0:31:13.3 Chris Hellawell: No, no worries. If you can skip on, that's me. There was a little prompt to say something interesting about myself, but I didn't put anything there. What I wanted to talk about was, I guess from ATL's perspective, our sort of history, I guess, with looking at carbon calculations. Our first sort of large part of funding was in 2018, and it came from a large fund from the Scottish government called the Climate Challenge Fund, and they had insisted on a carbon calculator, that we all use the same thing. But the model that they had, they only had waste electricals, but they're only sort of vaguely electronic things. So we had to record all of our tools as essentially as computers. So we were comparing all of our electronic savings and our sort of initial need and desire to create some sort of carbon calculator was the fact that we were not even comparing apples and oranges, we were comparing apples and cannonballs or something that wasn't

even a fruit or a vegetable. And it was incredibly frustrating because we knew we were doing more significant work and making a bigger, significantly bigger carbon saving than essentially that model was giving us credit for.

0:32:54.9 Chris Hellawell: And I think going back to what Gene was talking about in terms of justifying funding and things like that, you know, you have to have an accurate model to be able to compare like for like. And so, it was like community gardens and, you know, we're getting six bags of potatoes that aren't going into landfill. And that's actually a more of a carbon saving than the tool library doing this year. And it just, it was very incredibly frustrating. But we did get a piece of research and when we were starting out, it was very hard in the UK to get this kind of stuff. There's legal loopholes in the EU around particularly tools and around what is sold in different shops and things like that. But we were given this piece of research from WRAP, which is I think the English version of Zero Waste Scotland. So Zero Waste government quango basically looking at the life cycle analysis of a cordless hammer drill. And I guess I just wanted to put this in there as an important point is that what we're all doing in tool libraries and sharing libraries is we're increasing that 2%. That 2% is going up, but the vast majority of the common footprint happens before it goes into anybody's hands, whether that's even the person taking it home from the shop or the person that's sharing it.

0:34:28.7 Chris Hellawell: And I'd like to also think that that end of life stuff, a lot of tool libraries are being careful to take things apart and reuse components for spares and do that actually a lot more sensitively than your average consumer who's sticking it in the landfill or best sticking it in a bucket at the dump. So that was kind of where we started, was this just frustration of we know that this is not fit for purpose. And if you can click onto the next slide, we got... Yeah, there's Terence. Terence is actually in the room rather beautifully. He defected to the USA and moved to Maine. And you probably won't recognize him 'cause he looks pretty grizzly these days apparently, but that's what he used to look like when he was over here. Somehow not menacing despite the fact he's got two really sharp objects in his hands. But he was sort of drove this project that was funded by Edinburgh University and looked, basically built us a model using outputs from myTurn, so exporting data from myTurn and looking, using three bits of research in particular to sort of look at the materials that the majority of the tools that we're using sort of fell into one of these kind of pieces of research. So I think one of them was particularly in-depth research about things with electrical motors and one was more about the sort of simpler materials, so mostly hand tools, things like metal and wood and stuff like that.

0:36:17.7 Chris Hellawell: And I'm sure Terence will pitch in later on if we've got questions because I really hope you don't ask me them. So we kind of had this model that was chugging away in the background and we were using it for internal reporting and using it in our, I guess, outwards looking communications about the impact that we were having, but always being quite transparent. We have a webpage, we've always had that webpage, essentially saying how we come to this conclusion, that we're not claiming it, that it's anything that's more in-depth than we've actually done. But I think that's an important thing to, again, I think Gene had that comment on one of his slides about being transparent about how you've come to your conclusions. And so that's where we kind of were up until last year. And then the Scottish government, so if you click onto the next slide, so the Scottish government, Circular Community Scotland and Zero Waste Scotland have formed a crack squad of computer spreadsheet whizzes and people like myself who just go along and try and follow what they're talking about. But they're doing a lot of research around the entire reuse sector. So they're looking at furniture recycling and furniture reuse charities. They're looking at a model that will serve everybody.

0:38:07.6 Chris Hellawell: But because of the quality and the historical quality of the sample size of data that we've been able to provide them, that we've got from myTurn that they've been able to essentially do the tool library part of it quite quickly and quite, you know, they have that bit or a figure per loan that someone cleverer than I has worked out. However, because they don't want to launch a part of the model without the other parts, they're gonna sort of put it all together. I'm not allowed to say [chuckle] what they've come up with, but I think what it does do is the sort of figures that we've been using at ETL very much agrees that we're talking the right sort of language and the right sort of amounts. I think there's one particular, they've done some consumer surveys across Scotland about if you didn't have the opportunity to borrow from a tool library, what would you do? And so, that is something that we've never, we've always given our stats and our weights and our cost savings and carbon stuff with the proviso that compared to someone buying the equivalent tools, they've got a percentage or a conversion factor to look at actually. You can remove that piece of, or you can remove that clarification because they've done some research into what percentage of people would actually have an alternative.

0:39:54.8 Chris Hellawell: And yeah, they're sort of waiting until they can get the rest of the model finished up, which I think there's a sort of cycle for another year. They're hoping for some more funding. So it would probably be towards the end of 2025, but I don't think they're going to be precious about sharing that. And I think they'd be quite happy for other people to use it. We have had that discussion about it being user friendly and being simple enough for tiny organizations with a handful of volunteers to be able to use versus it being incredibly accurate, but incredibly intensive to get all that data into the system. But again, I think that idea of it being refined and improved over time and having that capacity to do that and not being too fixed is also super important to them. Yeah, and I think that is everything that I had to say. And the Tesco delivery hasn't turned up, so that's a personal win.

0:41:11.6 Amanda Miller: Perfect. We timed that ideally. I just was going to bring up some good points, some notes. I loved the apples to cannonballs analogy because that's extremely relevant. And to some comments in the chat too, we are pretty jealous of a government working cohesively to approach these problems, but we won't get into that today. I did want to ask you more of the... Because everyone touches on this piece of it. Like we are talking about quantitative data, right? And it's the qualitative data that seem to be the most storytelling pieces of it. But those are semi-intangible sometimes. But I know that you all have been doing this for a while. Is there anything that you could share about like as a tool library, what this means to maybe your community or to your groups, people that support you and partner with you?

0:42:21.0 Chris Hellawell: Yeah, I mean, we sort of split or... We don't split, we think of our work as outreach work. And when we do mostly workshop-based stuff, and working with disadvantaged or minoritized communities, and typically groups that are excluded from a sort of classic workshop environment. And so that is, I guess, more naturally, and that sort of environment to collect qualitative data and, you know, get those interviews and those little soundbites and things that we can put in reports. But we have library shifts where, you know, part of our library shifts, we use Slack. I don't know if it's a thing in America, but you know, it's basically, okay, yeah, you've got Slack where you guys are doing so well. But we have automated systems to prompt all our volunteers to note down those stories as they come in. So, you know, if we have someone doing a really interesting project, something really fun, or something significant or kind of really inspiring, you know, this community groups borrowing equipment to make a change in their community and benefit others, we want to hear about that.

0:43:45.6 Chris Hellawell: So we don't, and I think that is the stuff that you lose if you don't kind

of engineer an opportunity or, you know, we try to be as clear with our volunteers, we can always improve that, but that's the kind of stuff that funders, the Scottish government, you know, other potential members, that's really the people, the thing that people want to hear about. And I do think it's part of this reuse model that we're contributing to, I think that is the sort of next phase is that they have all the stats and the numbers and all that kind of stuff. And then they're looking at social impact data that can be attached to it.

0:44:32.4 Amanda Miller: And I mean, it's important when you're building that community, but you're saying to building it into the framework, really, of like, the same way you would collect the quantitative data to help tell that story. Yeah, that's great.

0:44:47.5 Chris Hellawell: Yeah. At the end of every shift, we have, as simple as we've got a clicker in terms of how many people are in and out the door. So it's, you know, which we have to do for all, we have a rental agreement. So our landlord has given us a free space, but they want to know that it's being used. So we report that data. That's in kind funding that we get. But we also use that opportunity if they're reporting on how many people are through the door, then we also want to know what else has happened? And what other things can we pass on that good news stories and things.

0:45:24.4 Amanda Miller: Yeah, and having personally come through the iStata base, it was insanely impressive. That was like a few years ago now. So I'm really excited to know that there's even more growth behind this. But I wanted to give plenty of time for anyone that had questions. Leanna, I know was taking a look and we were looking in the chat and I was trying to kind of take note of those things. But for any of our presenters, if you have a question, you know, I think there's just so much that we could dissect into this too. So I don't wanna assume, but if anyone has burning questions, Leanna, do you have anything on deck?

0:46:08.8 Leanna Frick: No, I think there's been some really robust discussion in the chat and we will be sharing the chat and all the links that were shared by email afterwards. But yeah, we'd love to hear from folks. What are your questions? And if we don't have any, I'll bring up Gene's discussion slide.

0:46:28.8 Gene Homicki: So actually, it's not a question, but I'll toss out just on that last topic of qualitative and stories. Oh, actually, Kelly, there's someone, a question that's not me. So please, I can come back to mine later.

0:46:44.1 Kelly Dunnings: Hey, this is Kelly Dunnings with the Center for Biological Diversity. And I am super excited about this work. I've actually been in waste and recycling for most of my career and am now working at waste prevention and reuse. But as a wildlife organization, we are interested in carbon. We do have a Climate Law Institute, but I think, Gene, one of your slides mentioned kind of more of the ecological footprint type data. So can you speak a little bit about the way that the center may be able to use this data for like, we really want to prevent extraction and production of stuff to really, really get upstream?

0:47:37.8 Gene Homicki: Yeah, so one, getting that data is really complex. And actually, I may, Laura can probably speak to this a little bit too. I know, [laughter] I'm sorry not to put you on the spot. So basically, what a lot of our customers are doing are looking at emissions data. As mentioned, that's a little bit easier to estimate. But when doing LCAs, so we're partnering with the Circular Library Network, they offer an electronic locking and locker system, but they're also working on an LCA database. As part of LCA, so Life Cycle Analysis, you can also look at some of

the other impacts, as we kind of discussed, like water impacts, resource extraction. And by getting that data on products, especially out of supply chain, I think Amanda mentioned this too, is really complex and difficult. Some of the manufacturers don't even have a good handle on it, because they're using their suppliers, and it's like part. And sometimes even the same product that you purchase at the store or use at a tool library or library of things may have parts that are manufactured in different countries and come through different supply chains based on what's most available and costs less, currently, when they're actually in the middle of manufacturing.

0:49:12.6 Gene Homicki: So getting like really quantitative data, we'd love to see it. We've seen efforts, and I know of a big scope three effort that is trying to get kicked off. And there have been a few to look at that data and look at full supply chain, but it is really, really challenging. Having said that, looking at amount of waste diverted, you can definitely get estimates there, different types of materials in those products as well. But it also depends on what's gonna be most important to the Center for Biological Diversity. So what sort of stats would you be looking for? What would be most important for your reporting and to show impact on reuse? And you're re-muted.

0:50:09.5 Amanda Miller: I don't know, I would just piggyback on your point, Gene, that not just a lot, almost all manufacturing, even if it says domestic, is mostly going to be imported. If you can look around the room and try to imagine what was pulled out of the earth to produce that, you're really looking at that data. But I'll let Kelly, maybe, if she's still able to join. Maybe we can follow up on that later, too, with exactly what it is. I mean, composition is a complex question. Oh, there she is.

0:50:45.5 Kelly Dunnings: Yeah, and I don't wanna take up tons of time. But yeah, it's just, and I'm familiar with LCAs and their nuances. And so, yeah, I just think that there's a huge opportunity there still to kind of continue to push that beyond emissions, but totally understand. And I was just going to put something in the chat. So we actually worked with Zero Waste Scotland on a paper that called for the reduction in virgin material use per individual item per year. Again, to really get to this place of extraction.

0:51:34.0 Amanda Miller: To bring Laura back into the chat when I was actually on her podcast, it was with another gentleman that was discussing rental. And the theme of that was rental. And we eventually got to the point where we were talking about everything is rental, unless you're changing it into something else like food. But all is to say it's all going to go back to the earth. And this is not helpful in any way other than these existential exercises. But really, the valuation for manufacturers to imagine, if they valued the raw materials that were sourced to create things, I think the mapping is just another level. And maybe Gene or Laura wants to discuss that more too. But yeah, and then I did mention too about restoration, as well as physically lending tools for actual restoration of biological environments, but also the partnering and reproduction of education for restoration. That's just another element of how that ties to libraries and things too. So yeah, Laura, I don't know if you wanted to chime in with anything or any input on that as well.

0:52:53.4 Laura Novich: Yeah, I mean, I think what came out of that podcast was that, yeah, everything is either short-term reuse or long-term reuse. Sorry, short-term rental or long-term rental. That's really what our life is, how long those periods of time are. But yeah, I think that's one of the things that we were trying to kind of navigate in the RIC is that there's a lot of calculations out there and everyone's kind of doing their own thing. And what works better for one place might not work better for another place. And how do you kind of find a happy medium as well? Like we used WARM, but it wasn't ideal. It was just what we were using at that time to use as a placeholder, really. So I think that it's hard. I don't know. I think that one of my takeaways is that it's just really

hard to find some of that stuff.

0:53:55.7 Amanda Miller: But the source data, too, everyone mentioned that. The source data that's providing calculations, providing the information, needing to have that be as accurate and transparent, of course, as possible. But really looking at that, too.

0:54:13.6 Laura Novich: Yeah, that's really hard also. And any other LCAs that we've worked on, or even I'm working on another one with furniture right now. It's not even an LCA. It's just having the furniture manufacturers provide some of their data to just be transparent. So that's a whole job in itself to just get them to provide you some information that's not even being used for an LCA. It's just some of their supply chain data. And that's a whole task. So, yeah, there's just not a lot of transparency. And there's so many different facets for any type of product. There's all these different material types and where they're all coming from, how they're being put together and where everything. Yeah. I used to say...

0:54:57.7 Gene Homicki: Yeah, my...

0:54:57.9 Amanda Miller: That was a terrible party trick that I had. I could look at something and be like, break down paint.

0:55:05.1 Laura Novich: 75 parts, yeah.

0:55:06.8 Amanda Miller: Yeah, exactly. Sorry, what was that Gene?

0:55:09.9 Gene Homicki: I just wanted to jump in with one thing there. One thing I'd love to see, and this goes back to I mentioned in passing sort of like shaping policy and government policy. I don't see this happening in the U.S anytime soon, but potentially in Scotland or Europe, having impact labels on products, so embodied carbon, other resources, pushing for that. So basically, pushing that up to the producers and to the manufacturers so that way they have to provide that label. So similar to nutrition labels on food, that would be kind of amazing. And that would get us access to do all of the reporting that we want to do. As mentioned, as I kind of mentioned in passing, that's super challenging even for some of the manufacturers with not always knowing their supply chain. But that should be one of our goals when it comes to this data and impact reporting, to be able to get that accurate reporting from manufacturers.

0:56:14.0 Chris Hellawell: Just to come back on that, Gene, so in Scotland, we've passed the circular economy bill at the end of last year. There's all sorts of legalities around powers and what was already devolved. And a lot of the bill reads a bit more like a waste management bill, rather than circular economy doesn't really get spoken about. However, the bill has passed and now it's about the roadmap of how to implement things. And part of the... They were obviously looking for comments and things like that, and that was definitely something that that was the sort of thing that I was trying to push was labeling or even something as simple as you've got the little recycling sign on your thing, well, bring something in that's the sharing equivalent of that, as well as if we're putting it on food, then why can't we put that same sort of stuff on products? But yeah, I think the will's there. I think there's all sorts of not being in the EU and Scotland having different mentality to Westminster and there's legal loopholes that we get snagged in that maybe you guys don't, but the will needs to be there in the first place.

0:57:45.8 Amanda Miller: We have lots of our own snags.

0:57:46.6 Gene Homicki: There's someone here.

0:57:48.9 Chris Hellawell: Yeah.

[laughter]

0:57:52.8 Amanda Miller: Leanne, I wanted to give you a second. But yeah, thank you guys. Thank you all for your time and your contribution. And feel free to just keep thinking, putting questions into us and into the chat, or we'll share some information as well, follow up. But Leanne, I wanted to mention our bigger other initiatives.

0:58:16.7 Leanna Frick: Yeah, thanks everyone. This was super helpful, especially as a neophyte. I did wanna just close this out by reminding folks that the Tool Library Alliance is here to gather and direct this kind of political will, especially in the United States. And it is a good inroad for anybody who is trying to get more connected to repair, reuse, circularity movements in general. We have some representatives of other folks here that we can put you in touch with. But going to our website, toollibraryalliance.org, you can find the International Library of Things Google Group. You can find Repair Use Washington, who we partner with for the Repair Economy Summit each year, where we do talk policy and collective impact. And how do we actually make some progress on these things in a policy direction? And this is also where you can find information about upcoming collabs. So we are going to be doing these monthly. They are scheduled out through June at the moment. And as things like the Repair Impact Calculator in Washington State become available, we'll do follow-ups on these same sessions as well. So go take a look. If you'd like to be a content expert or a panelist for a future session, let us know if you have ideas or requests about conversations that you would like for us to convene.