

Episode 2: Matchmaking

[Intro Music]

[Intro]

Eve:

Hi. Welcome to the Stop Collaborate and Listen! podcast. We are Eve

Julie:

and Julie.

Eve:

The show is all about relationships, but not in the way that you might think. We're talking about partnerships for those of us who are connecting public audiences with science and connecting science with public audiences. Today we're going to talk specifically about matchmaking. What do we have to do to connect scientists with specific communities and community members?

Julie:

All right. So here's our letter for today:

Dear Stop, collaborate and listen,

I work at a science center that often partners with a nearby university on their broader impacts work. The problem is that it frequently feels like there's a mismatch between our work and the interests and skills of the researchers who are reaching out to us. This really leaves us in a tough spot.

We end up needing to rearrange our programming to fit their interests and skills, or we have to try to integrate a researcher into an existing project or program. There are two common problems we experience with this. First, the researcher is not confident or doesn't have the skills they need to jump into our projects. And second, the researcher might not even be interested in what we're doing.

The outcome is not great for the public audiences, the researchers, or the Science Center staff. Our team members end up feeling unmotivated, stressed out, and underappreciated. How do we avoid this? Is there something we've been missing or is this just inevitable for this type of partnership

Signed, Misaligned or missing something?

Eve:

Yeah. And this is such a common problem. You're definitely not the only ones to feel like you're missing something. So I'm excited to talk about this more. I suspect many of our listeners have actually been in a similar situation.

Julie:

Yeah. And often scientists who need to do broader impact work, they sort of default to what they think broader impacts should be rather than what makes sense for broader impacts to be for them. They often don't have the opportunity to really consider what they really want to do. How this could be a good thing and enjoyable thing for them.

For example, I often talk to scientists who want to go and talk to classrooms. They want to go and talk to youth programs about their science. But maybe when you ask a few more questions, they don't really like children. They don't really feel comfortable talking to youth and the science that they work on is very hard to translate into the curriculums for the ages that they have access to.

[Discussion with Guest]

Eve:

To help us tackle this whole issue, we're going to talk with Travis Tangen. Welcome, Travis. I first met Travis back in 2014 when we both became involved with Portal to the public, and Travis now leads research impacts at Discovery Connections for WARF at the UW Madison campus.

Travis:

Great to be here. Just can't wait to react to that letter. There's a lot of things to learn from that letter.

Eve:

Yeah, there's a lot there. I want to start in one place, but like you said, there's going to be a lot to unpack. So we do often see that scientists kind of think they know what we do. Maybe they think they know what the range of options are when in reality the options might be much broader than they realize. So I'm sure you've encountered this. How do you navigate that kind of situation?

Travis:

Yeah, I think of that as the momentum of expectations. You know, there is this learning from peers, learning from the status quo, so to speak. And I think as a broader impacts professional, we're able to kind of broker and break that apart and really flip it on its head to say, don't pick off the shelf of what's available.

Let's think about what kind of things matter to you and how can you, as a researcher, develop what we all, you know, have been esteemed to follow this idea of impact, identity and try to get to that point. Mostly because it changes the thought of what's available for that researcher. It's not just visiting a school, it's something that they have a little pressure and a little bit of skin in the game to think about making a change.

So that's the first step is just really kind of disarming that there's not just one way to go about broader impacts. And again, this expectation of doing K through 12, which they might learn from their peers or from other review panels.

Julie:

So Travis, I heard you mention impact identity, and that's something that you and I talk about a lot. How do you use that concept? How do you describe that concept when you are working with these partnerships?

Travis:

Sure. So I used to call it kind of like, what's your impact elevator pitch, you know, so you have your research elevator pitch, which is the thing that worked at the time was like, can you do the same thing for the change you want to make in the world? And that's really the question I asked. What's that change at the end of your broader impacts that will occur, that will be there, that would not have been there without your program and your structure and your implementation.

So that's that's boiling it down to what change in the world do you want to make as a researcher? That's the question that really guides that impact identity. And we work backwards to design from that point.

Eve:

Right and critically, if I understand correctly, this is sort of a career long consideration, right? This isn't just about broader impacts within one grant or one project. This is thinking more broadly about how you can stitch the pieces of your broader impacts, work together.

Travis:

Oh, I love that, that idea. And it's an idea that I think is transcendent in terms of how researchers think about projects being individual to now building upon even a project that doesn't get funded. Some of the components of the broader impacts, impact identity move forward in a way that's still improved through pilot studies and different things that had to go into a submission that maybe wasn't funded at the beginning.

And that's a sense what we've heard within our cohorts of peers, this legacy idea of building a legacy again, which is another term I picked up from colleagues within our broader impacts design program. It's

just such a great idea to think about it that way. Similar to the research elevator pitch, again you have this long-term vision within your broader impacts, your research impacts that you want to make.

Julie:

Travis I really like how you're making this analogy between your research elevator pitch and your broader impacts elevator pitch. And just like in research, where you don't answer all your research questions, your first project out the door, but you build over time and grow over time. It sounds like what you're suggesting is with broader impacts, you might do the same thing, start small and grow your legacy over time.

Travis:

Yeah, and it's aligning to the individuals we're talking to. Talking to researchers, what is that common language, how can we broker expectations of what broader impacts could become while aligning to an existing schema? So the broader impacts space starts with like who are the individuals, and then how is that related to your motivations for wanting to do that?

You know, whether it's starting with the broad statement of working to help support underrepresented individuals in STEM find a place in STEM and STEM identity progression through the programs they're designing, that's one thing, but we need to narrow that down even further. And when you start to think of it as a legacy, it becomes much more manageable because that's such a huge problem to tackle at one step and it's really unrealistic.

But if you start to piece together how that could happen over a progression of projects, not fully knowing what's going to emerge in that first one, but that way of thinking about broader impacts really changes and it makes it more purposeful, more attainable, I think, to, to think about one broader impacts project informing the next when you have that legacy formation.

Eve:

So there's this component of helping the scientists identify their own priorities, their goals, their interests. But of course, the other piece of the puzzle in this matchmaking is figuring out who the specific community is and what their priorities are, what their interests are. I'm curious what role you think a science center or similar entity plays in building that connection and really hearing from the community to identify where there's opportunity?

Travis:

Yeah, I'm going to put pressure on two points of view for that. One, I will actually put some pressure on the researchers and scientists that are writing the proposals. And this is information that we've been lucky enough to learn from. Just talking with community partners is show up. Show up at the place you want to partner with before you put them into your project.

Know physically where it is, maybe volunteer, look at their website. You know, don't just pick it off the shelf because a broader impact professional like me tells you about a program, take that next step. So I tend to put pressure to follow the lead of our community partners and their voice and informing the researchers to do that.

But the second part of what I think we're learning to do better and better is be community-grounded and community-informed so that our practical natures of how we operate our programs of informal STEM is starting to change. So it's not Mondays at 3 p.m.. Everybody show up and this is when it's available for you to come to the museum.

What we do now is we've been having conversations and we go to the community centers and we ask, What are your mission values? Do you have programs around STEM interest or STEM identity or STEM connections? And we learn what the community-based orgs are thinking about STEM, and then we ask those really easy follow-ups. Well, when could this occur?

What does this look like? How many times might this happen in a semester? And now that's how we're shifting our programs to exist in that space. So once we have those two components now, it's an easier fit for developing a broader impact plan. So we just ask those questions. It's the same kind of question and then we help to be that matchmaker and set up those conversations.

Julie:

I like that a lot, Travis. In another episode, we talked to Susan Renoe about just listening, and that part of listening isn't just showing up, although that is a really critical first step, but also asking these open-ended questions when could this happen? How should it happen? And really taking the advice of the experts in the room. I want to dig in a little bit more about that conversation.

So a researcher finds a way to show up. They get involved in the organization they want to partner with. They start to learn a little bit more about them. What's the next step? What's that conversation like for understanding those first moments when you're identifying the alignment between what the researcher is interested in, what they might be good at, what their broader impacts identity is leading them to do, and where there's space for them to contribute?

Travis:

For me, it's always exciting to find that specificity that frequently happens when you again, you do learn you are intentional in your learning. If that's a first step, it makes partnership much easier to progress at an accelerated rate. So I don't really think much about kind of what process needs to happen for making a match. It's just learning, I guess, and being ready.

You know, I don't have a prescribed kind of pathway for an individual that's coming in. I just want to sit back and learn.

Julie:

How does the conversation go when only one side of the equation is focused on listening and learning and the other one's focusing on, do it, let's do it, and let's do it right now.

Travis:

So that does happen right where there's, again, it's that momentum of expectations that I mentioned earlier, there is an expectation that somebody has a schema in their mind of what they want to do and they're going to do it one because it works and it works in their point of view. But it might not be ideal in terms of design and equity and access and all these of things that maybe weren't considered.

So we try to shift those situations into having value as part of the proposal and make them a pilot study and say, all right, let's formalize this relationship building and try something that could be of value around a different type of citation within informal STEM learning and provide maybe for us our expertise is growing around STEM identity and really designing and implementing within those spaces informed by the research literature.

Eve:

You spoke a little, Travis, about making sure the scientists show up and start to meet the organizations, spend time out in the communities. But of course, this is complicated because the nature of academia means that these scientists are probably not from the communities that they live and work in. So how do you prepare your community partners for these interactions? How do you prepare the scientists for that? I mean, that there could be some tension there. I imagine.

Travis:

Yeah, there can never be an assumption that the community partners are always available. I think that's one thing that our group has to really be attuned to. So we have that – I don't know if I would say a warning - but just that drawing to attention that a community partner is essential in guiding us to do a good job if we want to make this impact change.

If we're thinking about youth development, for example. We can't do anything for them. We need to do things with them. It's a real obvious thing as soon as you can step back and digest that a little bit. So mapping out those timelines and availability informed by community partners really helps to build trust and continuity and it makes things so much more efficient.

Julie:

So, Travis, you said something earlier and you asked us to digest it a little bit. We can't do anything for them. We can do things with them. And that brings up the deficit model that haunts educators near and far it's so easy to fall back into that place where it feels like we have something that you need and it's our job to give it to you.

Right? And that's something that really shows up a lot in broader impacts and the assumptions that scientists often bring to these partnerships. How do you get past that initial deficit thinking?

Travis:

Yeah, personally it's, part of being part of our team, I try to be really conscientious for myself as well as our teams. I think about needs as a word we don't use. Think about assets and strengths and that is a space to grow from. It is a space of resources and direction and vision and value. That's where we need to put our energy.

And that's something that's easier to think about doing together, building upon resources together, building upon strengths together, as opposed to providing what's the gap we can fill? What's this need that we have to go out in the community and fix? And that, again, gets to that point of some of those problems are so multidimensional that there is a lot of great momentum and energy to fix those things that our community identifies as places to grow from.

But it's not something that one particular project is going to be able to fix. And so you're already misaligned in your ability to evaluate and fulfill that project goal.

Julie:

I really like that solution, right? Just eliminating needs. I feel like I've maybe said gaps fill the gaps three or four times just today in my regular course of work. So it's something we all need to hear on a regular basis.

Travis:

No, it's fun to think about that. And we're lucky enough to have our life science communication group here on campus that also studies how that doesn't work. So deficit and model is still very frequent, but don't do it. Don't just fill them up with facts and ideas and theories because again, you're missing that STEM identity and that personal connection and you have to learn together to be able to find out how to build that.

Eve:

I'm curious if we follow the idea of something being community driven to sort of its logical extension. Have you ever been in a situation where a community partner reaches out first and says, you know, I'd really love a scientist to work with us on something, and then you go and seek a scientist who may have a broader impacts opportunity. Has it ever gone in that direction?

Travis:

So yes, we have really moved our programs to be informed by community organizations. There's a small group, a small community center that has a group of middle school kids that has about 8 to 10 middle schoolers that go through the summer program. And we met with a coordinator, and she was a new coordinator that had been there a few months.

And we said, What is your vision for what this summer is going to look like? And she mapped it out. She was like, I really like water science and learning about the community. We've got these things in and about our spaces and places. I'm concerned about some of the water health issues that I've learned about as a community member, and I really want to bring that together. And I was like okay, so when are you when is that science group meeting?

Well we've got meetings on Tuesdays from ten to two, we'll have lunch in between. So what would the frequency of like having some connection to water be? Well, maybe, you know, maybe every week. Well that's a lot, I don't know if we could get that much. What about every couple of weeks? She said that would be great. And then she said, well what about field trips?

And I said yeah, that's awesome. And so that's where we learned I have partners on our team that are awesome and amazing that are community connection teams. So we had the three of us were on a call together online and then we sat together to say, how can we figure out what this community-based org is expressing as their resource pathway for the summer to help inspire kids in STEM?

Let's figure it out. And we had a recent Wisconsin Idea STEM Fellows program and we focused it on water. We actually transformed it to be partnering with the Madison Metropolitan Sewerage District and their engineers and professionals and water researchers. And now we're mapping them to be part of field trip experiences at different sites as well as their portal to the public stations.

And they're going to be doing that all summer, actually starting in a couple of weeks at the end of June will be their first session. They'll be doing that for a couple of weeks through the summer. So that all changed in terms of how we were doing that program by that community conversation, we wouldn't have had that type of program structure with that specific focus of science and us having the job to go find those researchers and water engineering professionals that were excited to learn about that opportunity, of somebody that is looking for them to have that impact within their new program. So that's a real specific example. That's real, real-time that's happening right now. That's exciting to see how it's going to shake out this summer.

Eve:

Yeah, it is exciting, I think it can be easy to fall into the mindset thinking that the broader impact mechanism is sort of restrictive or prescriptive and what you're describing is really a creative approach to it. It doesn't all have to flow the same way that kind of it traditionally has. That's really cool to hear about. Thank you for sharing that.

Travis:

And I was just going to say that's providing us a little bit of tension, too. You know, as we have this expectation of our norms of programs, we need to communicate why that change, why, again, might we have different field trip numbers or different after-school expedition numbers? Well, it's because we're listening to the community and trying to go to the same group multiple times, because we know that research informs that design as a better impact measure or better impact potential.

And so we want to follow that pathway as opposed to having the one-time visit. Not that that's not powerful. We could get more numbers that way, but we have to be able to explain that change. So we have a little bit of tension that we're lucky enough to be able to absorb from our leadership. And we have a lot of broker trust within our direction in that space.

Julie:

You know, something that has been really prevalent in our conversation with you, Travis, is how critical the role of brokering is. And it almost seems like if you do it well, nobody ever knows later that it was done. And I wonder if you have any advice for organizations who are trying to support this brokerage activity. You know, kind of how do they claim success with assigning people to broker these relationships? How do they know that it's working?

Travis:

That's a deep question, partly because you have those that you might be reporting out to. So we do ask, you know, for the researchers that we co-develop or help support their broader impacts development, their planning, let's share out and see the positive and negative spaces that the broader impacts find might have been judged in and then we can share that to our external reviewers.

We can also, during that time just talk with researchers themselves, like how did our interaction as brokers or, you know, discovery connections professionals helping you connect to the STEM ecosystem. How did that make a difference for you in terms of developing your program? And we'll get some formalized responses. And the thing that I know we're not always doing the best job at is, we do have a lot of mutual appreciation that happens in these discussions as people develop new thinking about broader impacts and they come through with awesome emails like, thank you that was really helpful.

I never really was able to map out this journey through time in a way that we're able to do in a half-hour meeting sometimes, you know? So what I think in hindsight that we still need to do better at is trying to find ways to not just collect those anecdotes, but figure out why that anecdote happened and make that happen with an understanding researchers better in the profile of researchers at different career stages and different types of projects they might be putting together and why we were of value at certain points of time, maybe more so than others. And then again, for those that are building towards a legacy like how does that happen for the second and third project and maybe more?

And then how do other partners that come in as things get more interdisciplinary for bigger projects kind of accident? So we're still trying to think about how all those things are informed by our impact on researchers. So that's a work in progress and anybody that has ideas, you're so welcome to learn together in that.

Julie:

All right. So there you have it. Misaligned or missing something. It seems like you're not really missing anything but really approaching these relationships and taking the time to listen and learn and drop assumptions on both sides of the equation seems really critical. I loved Travis's idea about trying to eliminate thinking of partners or audiences or groups you're working with as people who need something.

Just eliminating that thinking from your vocabulary seems like it could be really productive and it seems core to realize that even starting small and even having some tension and missteps can lead to something over time and over the long term, that has really powerful impact on the audiences.

So Travis, if you can kind of walk away from this conversation and really emphasize one or two pieces of advice for our audience, what would you share?

Travis:

Well one I'll say never pick favorites, always have a collection of favorites. So part of that is just your impact identity, find out as a group in a cohort, have those discussions about the change you want to make as an organization, or if you're an individual that makes up an organization, find out for yourself, follow your own journey of how you work with researchers and community partners first so that you have a sense-making of how you want to develop those broker ships of relationship shifts and things like that.

That would be a first step that that just really helps to have that come in alignment and then be open to thinking different about your work. Think about the historic relationships that are built within the existing structures that we have today and knowing a lot of these programs to broaden participation and make a change in who's involved with STEM are because of the way things are.

And if you continue to do things the way things are, we will have things stay the way they are. And so what can you do as an organization, as an individual, to be a change-maker and bring partners together to think differently about the future?

Julie:

Such a core point to shift from coming to the table and asking, what do you need from me? Which in and of itself is an important question. But shifting that to what change can we make together in the world really like that about what you said today, Travis.

Eve:

Thank you so much. Travis It's really been a joy getting to chat with you today.

[Outro Music]

[End Credits]

Eve:

Thanks for listening to Stop, Collaborate and Listen with your hosts. Eve Klein from the Institute for Learning, Innovation and

Julie:

Julie Risien from the Oregon State University's STEM Research Center.

Eve:

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Julie:

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