

Elevating Voices: Community Partner Perspectives on a Broader Impacts Toolkit

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Abstract

This article offers community partner perspectives on the National Science Foundation–funded Broader Impacts (BI) Toolkit, a new digital tool researchers can use to improve the societal relevance of their research. Partners suggest three ways the toolkit could be improved moving forward, underscoring the importance of relationship building to any BI activity.

At its best, scholarship can both advance knowledge and improve society. As the recognition of a need for research with positive impact beyond academia has grown, sponsors such as the National Science Foundation (NSF) have developed broader impacts (BI) criteria to evaluate proposals and funded projects (NSF, 2024). BI can take many forms and are specific to a given project's research goals, but they often involve outreach and engagement with community partners across various sectors. Recognizing that researchers often receive little formalized training in devising and enacting BI, the NSF-funded Center for Advancing Research Impact in Society (ARIS) developed a BI Toolkit (ARIS, 2023). The BI Toolkit is designed to fill this training gap for researchers with best practices and principles, including what questions to ask when designing a project, how to collaborate with different types of organizations, and how to respond to their needs.

The BI Toolkit was designed by BI professionals for use by researchers while preparing the BI section of NSF proposals. This article seeks to add voices and insights on the toolkit and the overall process of collaboration directly from community partner representatives, the people researchers would approach to create collaborations to implement BI activities. We interviewed five individuals who respectively represent five sectors commonly included as BI partners: educational nonprofits, children's science museums, cultural museums/libraries, Tribal colleges, and university Extension. Our goal was to understand how well they believe

the BI Toolkit reflects their perspectives and needs and ultimately prepares researchers to collaborate with them. We share results and key takeaways from these interviews and propose several ways that the toolkit could be expanded to more fully reflect community perspectives and guide researchers toward mutually beneficial partnerships.

The authors are members of the research and community engagement communities at Montana State University (MSU). From 2023 to 2024, Dr. Daniel Grant served as the associate director of research development for extension and engagement, working to elevate the societal relevance of research at the university. Dr. Nicole Motzer is the director of research development and works with faculty, students, and staff to identify and pursue funding and collaboration opportunities for their research, scholarship, and outreach activities. Dr. Chatanika Stoop is the assistant director of the Center for Faculty Excellence that supports faculty professional development in the areas of teaching, research/creative activity, outreach/service, and leadership. Suzi Taylor is director of the Science Math Resource Center, a STEM outreach center in the Department of Education. All four authors have engaged with ARIS in official capacities. Motzer, Stoop, and Taylor participated in ARIS's yearlong Organizational Research Impact Capacity (ORIC) program, which helps institutions expand capacity to support BI efforts on and off their campuses. Stoop, Taylor, and Grant have delivered formal programming on BI using ARIS materials including the BI Toolkit, and Motzer and Taylor

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have previously attended ARIS BI Summits. All four authors have also previously been funded by the NSF. This combined expertise gave the research team a foundation of knowledge to draw upon in approaching research partners.

Process and Methodology

After the study was approved by MSU's institutional review board, we strategically recruited participants to represent the seven sectors listed under the BI Toolkit's "typical audiences for broader impacts" (government/policy makers, higher education, industry, K-12 aged children, educators, lifelong learners, and public). In addition to sectoral diversity, we prioritized recruitment of individuals in leadership roles who could speak for their organization. We ultimately interviewed five individuals from all sectors except government/policy makers and industry, despite the team's efforts to recruit representative participants. Of the five, four identify as women. Four are in Montana, and one is in the neighboring state of Wyoming.

Participants first completed an online survey about their organization to provide background for the subsequent online interview. The size of interviewees' organizations ranged from one person to 200 people. Consistent with rural Rocky Mountain West demographics, all organizations were in communities of 50,000 people or fewer. Some interviewees had little or no grant or research partner experience, while others had ample. Interviews centered on what each organization seeks from a potential research partner and any prior experiences informing their criteria. None of the participants were familiar with the BI Toolkit, and none were aware of any research partners having used the toolkit to guide their BI interactions. Still, consistent themes emerged across the five interviews regardless of organizational sector, level of research experience, and size.

The authorship team took turns conducting virtual interviews in pairs. Each interview began by establishing context about the participant's previous experiences with research partnerships before introducing the concept of BI. We then provided a digestible BI Toolkit overview. The BI Toolkit is expansive, including four main sections and dozens of subpages, videos, online tools, and external references. We introduced interviewees only to content found within the *BI Wizard* section, where most tools related to community partnerships are found. We then

asked a series of questions inviting interviewees to reflect on how useful and relevant they believe the BI Toolkit would be for initiating research partnerships with their organization as well as how inclined they would be to work with a researcher who had consulted the BI Toolkit. We finally invited interviewees to offer any suggestions for improvements or additions to the toolkit. Interviews averaged just over 1 hour long. Participants were offered a \$75 gift card for their time.

We manually drew meaning from the data via thematic coding of automatically generated interview transcripts. We individually took an inductive approach to code development, identifying key themes as they emerged in interviews, and then met as a team to identify and integrate those themes that appeared most often. We collectively generated themes, including interviewees' broad support for the toolkit and suggestions for refining its content. We report on the three most common themes below. Coding qualitative interviews, as we did for this article, inherently risks misrepresenting the perspectives of interview subjects by filtering their words through the lens of the researchers' priorities and affiliations. This can have the unintended effect of speaking for communities rather than with them—a potential pitfall that would undermine the main purpose of elevating voices in this essay. At the same time, researchers can add valuable context to interview data. To ensure that interviewee perspectives were represented as accurately as possible, we incorporated direct quotes and asked all five interviewees to confirm that a draft of this essay corroborated their experiences and views prior to submitting for peer review. We also asked whether we missed anything or if they had anything else they wanted to add to this study. Interviewees unanimously approved the text.

Partner Affirmations

All five individuals interviewed saw value in the BI Toolkit for helping researchers better think about, prepare for, and eventually work with community partners on BI. For example, the director of the large cultural museum/library expressed support for the BI Toolkit as a way to effectively integrate community partners into projects from the beginning instead of only after a project had been fully conceptualized, when syncing priorities and resources is more challenging:

[The toolkit would be good] just to get people on the same page, organized ahead of a partnership to make it more effective and keep societal impacts in mind. It also creates wonderful common language and common goals that are tied to the National Science Foundation, but also, I think, espoused among most institutions with whom we'd be working.

The Extension specialist, who focuses on rural community development, similarly recognized that the toolkit could be useful prior to partnership-building: "Anything [that helps prepare a researcher] is great," they said. "It would clue them in that this is important, and here's some key concepts to look for and to work towards." All partners also indicated they would be more inclined to work with a researcher who had used the BI Toolkit during project planning stages. The faculty member at a rural Tribal college shared,

If you want to bring people into your project, especially here [in a Tribal community], you really should be paying for their time and supporting them to do that work, not just saying, "Hey, you're a community organization, you're already serving the community. I want to serve the community, so you should serve me." That's not OK.

From their view, the BI Toolkit is a positive step toward encouraging researchers to consider all expenses – financial, time and other – involved in building partnerships.

Interviewees further saw value in having a framework to think about collaboration in a structured way. The *Partnership Should Have Purpose* section of the BI Toolkit gives details on strategic, learning, and transformational partnerships. In fact, two interviewees mentioned that they had not considered different kinds of partnerships and their different goals. Many mentioned that such a section would help in preparing researchers for working with community partners.

Interviewees did share the caveat that the potential value of the BI Toolkit is likely to vary, with some variance related to a community partner's degree of grant experience. Those with a longer history of researcher interactions, for example, might more easily recognize the BI Toolkit's academic language and federal funding

references and constraints, such as "how reviewers might rate the researchers' academic credentials." Still, a comment from the Tribal college faculty member reflected interviewees' overall attitudes that despite some shortcomings, discussed in more detail below, the importance of the BI Toolkit is clear: "It's kind of ludicrous to expect [the BI Toolkit] to be one-size-fits-all perfect for everybody. That's not realistic. But at least it's a starting point. And it puts things in a nice, clear, and communicated way." In other words, while the BI Toolkit can't be everything, it is a significant improvement over nothing.

Partner Suggestions

In our interviews, community partners reported three main ways in which the BI Toolkit could more effectively guide researchers in creating and implementing BI plans: more guidance on initiating partnerships, additional context about NSF language, and a collaborative process or companion guide for researchers to use with partner organizations.

Relationships Before Research

All five interviewees emphasized the importance of personal relationships between researchers and community partners, and two offered specific suggestions for content that could be included in the BI Toolkit to offer more guidance on best practices for approaching potential BI partners and laying the initial groundwork of a BI partnership. The Extension specialist, for instance, shared: "The fear that comes up is . . . they are just like, 'Oh, I'm going to go out, you know, like a robot and get a partnership.'" That a researcher might take the BI Toolkit too literally and bypass the relationships upon which true collaborations are built was a concern shared by several community partner representatives. The director of the after-school nonprofit suggested that clearer framing around the BI Toolkit as a means of building long-term relationships as opposed to finding partners for individual, short-term grant projects could curtail overly transactional applications that could dissuade potential partners: "The objective [of writing a proposal] is to get the money. So that's where the focus has to be, which is hard, because it doesn't always address the problem that is really out there in the world." The director offered that a longer-term emphasis could help to avoid frustrations researchers might experience when trying to initiate new BI partnerships:

It might be a really great project that [the partner] is interested in, but it might not be the right time. Consider in the beginning of a possible partnership, maybe not for this project, but a future project. So, facilitate that relationship building over a longer period of time.

The museum director elaborated,

It's so critical from a point very early on to share with each other the mission, the vision, and the values that you and your institution espouse, not only for the project but on a larger scale, really assuring alignment with goals.

Promoting the BI Toolkit from this angle could be essential for helping researchers know how to proceed with a community partner who is interested but unable to participate or how to proceed when a motivating grant is not funded.

Two more interviewees suggested that the BI Toolkit would benefit from improved guidance on how researchers might “right-size” their proposed BI activities for the unique circumstances and capacity of a given community partner. The lead volunteer at a small science museum with no full-time employees described worries of “taking on too big of a project,” no matter how exciting that project may be. The museum volunteer elaborated, “Most partner organizations also probably have a thousand things going on and maybe don't have enough resources to be doing extra things. ... An acknowledgment of that reality [would be helpful].” The Tribal college faculty member said that “cost” is not always measured in dollars: “A thing to think about is not only how much will this cost, but also how much time do we expect from the people involved?” Increased attention in the BI Toolkit toward helping researchers understand an organization's capacity limits—essential for building strong and sustainable relationships over the long term—could increase smaller, less-resourced organizations' ability to participate in a research partnership and could help prevent awkward and sometimes stressful instances of community partners needing to push back on or ultimately decline an offer to partner.

Reframing NSF Language

Two interviewees recommended that the BI Toolkit could provide more context about the language it contains from NSF's Proposal

Award Policies and Procedure Guide (PAPPG; NSF, 2024). They expressed concern over certain words and phrasing in the BI Toolkit that echo the PAPPG, and they questioned the implicit messaging about BI activities that researchers may receive as a result. For example, the Tribal college representative noted what they felt was an overemphasized need for BI efforts to be “innovative.” To the contrary, they argued the value of prioritizing what a community partner needs, even if it has been done before:

A lot of what we do in our community is we try and develop something and get something going, but then the problem is sustaining that work and continuing it. ... I think part of the problem is we're always trying to do something brand new and novel and unique rather than really, truly giving something a chance to get tested and tried and tweaked, and that's really difficult.

In another example, the Extension specialist took issue with the section titled *How Will I Know if My BI Project is Successful?* This section begins, “A truly successful BI project engages people outside your field to understand the relevance of your research.” According to the interviewee, this framing suggests that the goal of BI is to get communities on board with one's research. “I can't get past that first sentence,” they said.

No. [The community partners] don't care. They're busy. The research needs to be relevant to *them* [emphasis added]. It's not up to them to feel that your research is relevant. This putting the onus on the community members is backwards.

Primarily based on NSF's BI criteria, the ARIS BI Toolkit is informed by NSF's merit review criteria, which emphasize “creative, original, or potentially transformative concepts” (NSF, 2024). Still, interviewees suggested that simple language shifts could better highlight the importance of equally weighting community needs and research goals. Such shifts would help to avoid misaligned priorities. Asked the director of the after-school nonprofit, “[Researchers] are experts in the world, but what can you learn back from [community partners] about how your research will land in the world?”

Community Partner Companion Guide

While all interviewed partners saw value in researchers using the toolkit, two went so far as to say that the toolkit could be useful to them as well. The Tribal college faculty member presented the idea of a companion guide for researchers to use together with partner organizations. This guide could flip from the researcher viewpoint to help community organizations plan and implement research partnerships in parallel, informing how they might engage reciprocally and equitably with researchers according to their values and capacity. In the words of the Tribal college faculty member:

I think there should be a tandem toolkit that a community partner can look at, and that should match or mirror the researcher side. “Let’s look at these together and see how they meet with each other,” or something like that. Because essentially this still seems like, “Researcher, you have all the power.” But maybe a community partner should have some tools [on] “this is how we want to engage with researchers or projects or things like that.” I guess just sort of placing it on a little bit more equal footing.

The museum director also saw value in a BI partner having access to and using the toolkit alongside the researcher:

I think it would be very useful internally as well. We’ve developed documents internally, but they’re nowhere near as comprehensive. This is a great example of an opportunity to leverage well-done work, created externally, to not reinvent the wheel and to have common language.

Discussion

Researchers who keep these three partner suggestions in mind could go a long way toward maintaining relationships, clear lines of communication, and opportunities to continually assess accomplishments and ongoing mutual needs (Key et al., 2019; London et al., 2020).

Combined with this guidance from our partners, our experience conducting this work as trained BI professionals provided valuable insights for us and others in the role of researcher–community partner liaison. For example, while it was exciting to search for new partners and try to build new relationships for this project, we found

more success when we reached out to existing partners or when we leaned on a mutual contact to make an introduction, especially given the time constraints of this study. As we advise researchers on BI and the toolkit moving forward, we will highlight how the BI Toolkit will not accelerate or substitute the critical work of relationship building. Our findings show it can play a role in facilitating new partnerships, but only as much as the allotted time allows and likely only if paired with key institutional resources and contacts, such as a university community engagement core.

Another insight we gained pertained to our positionality as academics. We were careful to meet our partners where they were and limited our use of jargon in the scripted portions of our interviews. We also intentionally considered and discussed with our partners how their participation would serve our own research needs while only potentially benefiting their organizations. Moving forward, when coaching researchers, we will remember our partners’ points about the importance of language and the need to reach a mutually beneficial agreement. We will also remind researchers that while the use of the BI Toolkit is an important step toward more transparent and lasting partnerships, efforts should not stop there. In that regard, we can clearly see how a companion guide could empower our community partners to engage with the BI Toolkit beyond this study.

Finally, this project demonstrated the importance of community-engaged research for BI, and we can see integrating these findings into the BI trainings we regularly lead for research faculty. To many faculty, BI and community-engaged research occupy distinct areas, but much of what we heard in interviews suggests overlapping needs and goals that can be bridged more substantively. Comprehensive BI training for researchers could include a module on community-engaged research principles and encouragement to use the BI Toolkit in consultation with community partners early in a research project’s development, as partner input can help researchers unlock the benefits of BI and community-engaged research simultaneously.

Conclusion

According to the NSF, the goal of BI is to “to benefit society and contribute to the achievement of specific, desired societal outcomes” (NSF, 2024). We believe that incorporating the perspectives of community partners can enhance the potential of the BI Toolkit to facilitate desired outcomes, including more impactful and mutually beneficial

partnerships. Community partners across diverse sectors, organization sizes, and missions expressed unanimous support for the BI Toolkit. To build on the BI Toolkit's success, more guidance on initiating partnerships and refinement of the language and framing used could improve partnerships required for funded research. These changes could also create the necessary fabric of trust and reciprocity to sustain research-partner collaborations over the long term (see, for example, Dostilio et al., 2012). And if an additional companion guide were developed to be used collaboratively by researchers and partners alike, BI could be taken one step further on a line from research professionals to scholars to communities. Partnerships are, in essence, about personal relationships. An online toolkit cannot replace authentic relationships, but it can help facilitate them if it gives partners a voice and places people at its core.

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