

Reflection Piece, Indigenous Research Methodologies: The role of Human-Centred Design in Indigenous Research

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Introduction

My reflections are mainly based on insights gained from discussions at the Indigenous Research Methods Workshop in Brazil, held at Casa Rio and Museu do Índio in Rio de Janeiro from the 19th to the 23rd March 2019, a partnership between the Arts and Humanities Research Council (AHRC), the Economic and Social Research Council (ESRC) and the People's Palace Projects (People's Palace Projects, 2021). The workshop in Brazil brought together researchers who had undertaken twelve different collaborative indigenous research projects across ten different countries (Brazil, Colombia, India, Mongolia, Kenya, Uganda, Sudan, Kiribati, Papua New Guinea and Dominica). The focus of the workshop was to discuss issues relating to indigenous engagement, research partnerships and knowledge mobilisation. In preparation for the workshop the ESRC and AHRC commissioned case studies from the twelve projects, as well as a think piece from Giovanna Fassetta and Maria Grazia Imperiale (2019) summarising the global literature. There were also follow-on webinars in April 2020 and March 2021 (People's Palace Projects, 2021).

One of the case studies was my collaborative project with Professor Santhosh Kumar, based at Amrita Vishwa Vidyapeetham in India. The project explored how human-centred design (HCD) research methods can be used to engage with and support indigenous communities in rural India, with a focus on how to improve their health and well-being (Loudon et al., 2019). The project was a collaboration with researchers from Amrita Vishwa Vidyapeetham in India; villagers from indigenous tribal communities in the Kerala State of India; medical doctors and healthcare workers who work in these rural communities; and experts in eHealth solutions. Human-centred design is a problem-solving process that is often used to create new products, systems or services based on the needs, desires and context of a community or a particular group of individuals (Giacomin, 2014; Brown, 2019). Human-centred design is inherently collaborative and interdisciplinary, bringing together methods and skills from disciplines such as anthropology, design, economics and engineering.

Many important topics were discussed in the workshop in Brazil and the subsequent webinars, including access to academic literature; how funding structures can lead to unequal relationships between researchers in the Global North and the Global South; and the importance of engagement in forums held in the Global South (People's Palace Projects, 2021). I will touch on some of these discussions, but mainly focus on issues raised relating to self-determination; the importance of creating tangible benefits for indigenous communities; the role of interdisciplinary research; and the emphasis on building capabilities. The reason for the focus on these particular issues is that I believe the key principles and practices of human-centred design can be used to help address them. However, there are significant implications for how research should be funded and organised if such an approach is to be successful. I initially lay out some of the key

points made by participants at the workshop in Brazil, followed by a brief explanation of why I believe that human-centred design principles and practices can be effective, including an example of work undertaken by Amrita Vishwa Vidyapeetham with an indigenous community in India. Finally, I address some of the challenges raised at the workshop, the webinars and through the case studies and suggest possible ways forward for the field.

Insights from Indigenous Methods Workshop in Brazil

Theme: Self-determination

An important theme that emerged from the workshop was the importance of self-determination for the indigenous communities, but also the desire for support from universities and other organisations.

“One of the most fundamental issues of indigeneity is self-identification and self-determination”

Stanley Kimaren, Indigenous Livelihoods, Enhancement Partners, Kenya

“We must be the protagonists of our own research. But with your support, of course. We need support from the universities.”

Eliane Potiguara, Indigenous writer and activist, Brazil

This links with the approach of ‘development as freedom’, advocated by Amartya Sen (2001), where he argues that development should focus on “the promotion of overall freedom of people to lead the kind of lives they have reason to value” (p10). This also implies that indigenous communities should have the freedom and self-determination to change how they want to live their lives and has implications for western researchers in terms of how they view and work with indigenous communities.

“Indigenous peoples apparently remain indigenous if they are isolated, so that we appreciate them as representing places we have been, where we have left as civilised societies, you know, the past we have left; and observing them from a vantage point of a developed, advanced, modernised civilised society. I just wanted to say that Indigenous People make choices on what technology works for them [and] what education serves their interests.”

Stanley Kimaren, Indigenous Livelihoods, Enhancement Partners, Kenya

Theme: Creating Tangible Benefits

Many comments made during the workshop related to the attitudes of, and promises made by, western researchers when looking to undertake research with indigenous communities and the subsequent impact of the work on the indigenous communities.

“They [the researchers] gave to our community and kids expectations of work with us, but when they finish their thesis, they forget about us.”

Caludia Maigora, Emberá-Chamí, Colombia

“[we were] flooded with researchers because of Climate Change. What for? For whom?”

Pelenise Alofa, Kiribati Climate Action Network, Kiribati

“We pick the wounds of communities and we leave them open afresh. We offer really hardly nothing in research to respond to this other than a publication summary in Northern Europe.”

Stanley Kimaren, Indigenous Livelihoods, Enhancement Partners, Kenya

“Many times I hear communities saying ‘what is in this research for us?’ And people say ‘advocacy - we are going to make awareness’. But sometimes awareness is not enough. What is the tangible benefit in the community? Not for individual people in communities, but community resources.”

Lilly Sar, University of Goroka, Papua New Guinea

“The indigenous person remains in their designated space, still as the informer, the object.”

Anápuáka Tupinambá, Radio Yandê, Brazil

“What happens to them when they’ve gone? Have they forgotten the people that gave them all the information, all the data that was given?”

Lilly Sar, University of Goroka, Papua New Guinea

These comments mirror points made by Giovanna Fassetta and Maria Grazia Imperiale in their think piece (2019) and Adam Branch and Laury Ocen in their case study (2019) on the inequalities and injustices that are still prevalent in collaborative research between western researchers and indigenous communities. They are also in line with findings by Dawson, Toombs and Mushquash (2017) who highlight that indigenous research “has historically been completed on, rather than with” indigenous communities.

Themes: Holistic Thinking and Interdisciplinary Approaches

Giovanna Fassetta and Maria Grazia Imperiale (2019) highlight that indigenous knowledge, beliefs and practices are often holistic in nature and therefore suggest that international development research with indigenous communities should have an interdisciplinary dimension. However, much of the indigenous research conducted to date has been by western researchers from a particular discipline (historically anthropology).

“The western way of thinking germinates, it eats people’s minds. One moment you are here with me, then the next second you are running away from the centralism of the indigenous ways of thinking.”

Eliane Potiguara, Indigenous writer and activist, Brazil

“Why is anthropology in the mix and not any other scientific discipline involving research?”

Carlos Fausto, Brazilian National Museum, Federal University of Rio de Janeiro, Brazil.

Pamela Mason, strategic lead for International Development at the ESRC, also highlighted the need for an interdisciplinary dimension in indigenous research.

“Learning needs to extend beyond the Social Sciences and Humanities’ communities and we need to be engaging with engineers, we need to be engaging with health researchers and medics. We need to be talking to natural scientists, environmental scientists, so that question of interdisciplinarity, I think it’s really critical.”

Pamela Mason, ESRC

Themes: Building Capabilities

Another theme that emerged was the importance of building the capacity and capabilities of indigenous communities.

“What can indigenous research contribute to the development of communities?”
Lilly Sar, University of Goroka, Papua New Guinea

“How to establish knowledge centres, research and knowledge hubs where this knowledge is collected so that it is not just taken away?”
Stanley Kimaren, Indigenous Livelihoods, Enhancement Partners, Kenya

Again, this theme resonates with the arguments put forward by Amartya Sen (2001) about the importance of “the expansion of the capabilities of persons to lead the kind of lives they value - and have reason to value” (p18).

Human-Centred Design

Giovanna Fassetta and Maria Grazia Imperiale (2019) propose that indigenous research should be driven by “questions or problems raised by Indigenous communities”; should “demonstrate full inclusion of Indigenous people at all stages of the research process” and “include an interdisciplinary dimension” to “ensure engagement, knowledge mobilisation and sustainable impact”. A similar argument is made by Amartya Sen (2001) who emphasizes that people (for example, from indigenous communities) should be “actively involved ... in shaping their own destiny, and not just passive recipients of the fruits of cunning development programs” (p53). These arguments were reinforced during the workshop discussions in Brazil.

“Before we design a project or a proposal, there should be a collaborative effort at the grassroots level and to ask one question ... what exactly would you want to portray?”

Cozier Federick, Ministry of Kalinago Affairs, Dominica

“The lessons we have learned is really about building truly equitable partnerships, to facilitate co-creation, co-production [and] co-ownership of research outputs. To do that, you need to think of research from design to dissemination. Because every moment in this cycle is a moment of exclusion otherwise.”

Stanley Kimaren, Indigenous Livelihoods, Enhancement Partners, Kenya

My response to these comments and suggestions is that human-centred design follows these principles and practices and therefore should be seriously considered as a method for approaching indigenous research. Human-centred design is about co-creation and co-production and has its roots in methods such as rapid rural appraisal (Chambers, 1981) as well as participatory rural appraisal (Chambers, 1994). During my project with Amrita Vishwa Vidyapeetham I saw an example of this approach in action (Sreeni, 2020) where K.R Sreeni from Amrita helped an indigenous community (Sadivaial) in the Tamil Nadu state in India produce and sell organic rice (as well as other crops). Sreeni's approach was about enhancing the capacity and capabilities of the villagers so that they could become a 'Self Reliant Village' (Amrita SeRVe, 2021). At all times, the villagers decided as a group what strategies they wanted to take and were active participants throughout. The collaborative work spanned over two years, having started in 2016. The work involved fundraising; securing land rights; interdisciplinary collaboration (such as working with Kerala Agricultural University on the development of lost-cost organic fertilizer mixes); developing natural pest control solutions; core farming work; cost analysis; marketing; and selling the crops. The research programme resulted in income stability for the community and a significant improvement in the villagers' health and wellbeing (Sreeni, 2020). During my visits to Sadivaial in 2018 I saw first-hand the love and appreciation that the villagers had for Sreeni, but what was also evident was the respect and love Sreeni had for the villagers. A short video highlighting the project work is available to view online (Sadivaial, 2020).

I believe that human-centred design methodologies can help address some of the major issues raised during the workshop in Brazil and the subsequent webinars. However, to enable the effective implementation of such an approach, there are some key challenges that need to be addressed by universities and funding organisations.

Challenges and Possible Ways Forward

Stanley Kimaren posed the following question during the workshop in Brazil:

“How do we bring tangible consequences? ... scholarships are kept in the North, but data is abstracted from the South. So how do we therefore then create meaningful, equitable, genuinely positive partnerships and collaborations?”
Stanley Kimaren, Indigenous Livelihoods, Enhancement Partners, Kenya

This also links to Stanley Kimaren's other point, quoted previously, about the need to establish research and knowledge hubs. Adam Branch and Laury Ocen (2019) highlight their concern when western researchers are trying to gain indigenous or traditional knowledge. What can happen is that local academics are bypassed with western researchers choosing to collaborate directly with indigenous communities instead, leading to the “downgrading” of local university academics. Instead, they suggest that western researchers should attend and join (if invited) academic debates and agendas happening in local universities and research centres so research projects can then evolve from long-term relationships. This idea was also supported by Giovanna Fassetta and Maria Grazia Imperiale (2019) who propose “knowledge exchange/building workshops for researchers and practitioners aiming to work in international development projects with indigenous communities”. Such an approach can help avoid another issue that can arise when western academics define a research question before

they have found local partners or collaborators. That is, the project ends up being directed predominantly by the western academics and there is not an equal collaboration with local partners or collaborators in terms of setting aims and objectives for the research, or in terms of the resultant allocation of research funding.

These comments and suggestions match my own experience of working with Amrita Vishwa Vidyapeetham that evolved from the long-term connection I have with Professor Santhosh Kumar and discussions we had about the work that Amrita was already undertaking with indigenous communities in Kerala and Tamil Nadu states in India. Therefore, I propose that western universities should look to work with local universities and academics who have close links with indigenous communities (where possible), or perhaps researchers based at local Non-Governmental Organisations (NGOs), as this could help strengthen local knowledge centres and research hubs. It can also help “create meaningful, equitable, genuinely positive partnerships and collaborations”. The AHRC and ESRC already have funding calls for research networking grants that provide a mechanism to help establish collaborations and support knowledge exchange. But perhaps this type of funding needs to be strengthened and designed in a way that supports the establishment of longer-term relationships rather than short-term activities and include scholarships for academics based in the Global South, so that local knowledge centres and research hubs can be more easily established and sustained.

To my knowledge, the current grant review processes only include UK-based academics. However, if we want to build “truly equitable partnerships, to facilitate co-creation, co-production [and] co-ownership of research outputs”, as pointed about by Stanley Kimaren, it seems inappropriate to exclude the voices of indigenous communities and universities and NGOs from the Global South (working with indigenous communities) in the review process. Whether that be for networking research grants or other types of funding schemes such as the Global Challenges Research Fund (GCRF, 2021). Therefore, I suggest that there are more appropriate ways of conducting peer reviews for indigenous research. There was a strong desire from participants at the workshop in Brazil to play a role in helping to find solutions to this challenge.

Another proposal made during the workshop in Brazil was to have a two-stage process for funding calls: the first stage being for detailed planning and exploration of ideas, and the second stage for implementation.

“How do you bring a change in community? ... I think we should make a point that any indigenous research must have enough funding or second phase funding, when you have to have some form of development that is tangible in a community.”

Lilly Sar, University of Goroka, Papua New Guinea

“We propose a two-phase approach for consideration to funding cycle. One, where there is a pre-sort of qualification and some resources, small resources are allocated for communities to inform the design tools.”

Stanley Kimaren, Indigenous Livelihoods, Enhancement Partners, Kenya

A two-stage funding process would fit well with a human-centred design approach, where the first stage of HCD typically focuses on gaining a deeper understanding of

people's needs, behaviours, motivations, beliefs and values to help gain a clear understanding of the problem(s) to address together with a plan of action. The second stage of HCD is the implementation of the plan that includes an iterative process of idea generation, fast prototyping and evaluation by all key stakeholders considering aspects of desirability (people), feasibility (technical) and viability (financial sustainability). An added benefit of the two-stage process is that funds are initially available for the participation of groups and organisations that would otherwise be excluded from the project due to prohibitive costs. A two-stage funding approach also reduces the financial risk for UK Research Councils.

Human-centred design uses multidisciplinary teams including domain specialists and potential end users to make sure that ideas proposed and developed are desirable, feasible and viable. This is because it is highly unlikely that any one discipline (or person) has all the necessary skills to address complex challenges, for example indigenous communities, and create tangible benefits for them. As highlighted above, participants at the workshop in Brazil emphasized the need for interdisciplinary approaches and holistic thinking for indigenous research that human-centred design can potentially offer. However, there are challenges in successfully implementing such an interdisciplinary approach. The first is described by Adam Branch and Laury Ocen (2019): "the technological infrastructure of western disciplinary scientific knowledge makes it hard for it to enter into conversation with those outside its narrow disciplinary bounds". Therefore, I propose one of the key actions for UK Research Councils is to run training workshops and networking sessions for academics so that there is greater understanding of different disciplines; the skills and role they can play; the language they use; and to address prejudices that can exist amongst western academics about the role and contribution of other disciplines.

The second challenge to the successful implementation of an interdisciplinary approach such as human-centred design relates to the ways funding applications are currently peer-reviewed. The UK Research Councils already have mechanisms in place to consider interdisciplinary research applications through 'The Cross-Council Remit Agreement' (CCRA, 2021) and through their targeted funding calls, such as those supported by the Global Challenges Research Fund (GCRF, 2021). However, this can mean passing applications between different research councils for review and has the potential to slow the review process down. In addition, there is still the challenge of having academics on peer-review panels with limited knowledge of different disciplines. Linked to my previous point about the need for indigenous research expertise in the peer-review process, I think there needs to be a fresh look at the peer-review process to explore new possible mechanisms and approaches. For example, perhaps training in interdisciplinary collaboration should be mandatory for all academics undertaking peer reviews for the UK Research Councils.

Conclusions

My proposal is that the interdisciplinary principles and practices of human-centred design can help address some of the key issues raised during the Indigenous Methods Workshop in Brazil, namely self-determination; creating tangible benefits; holistic thinking; taking interdisciplinary approaches; and building capabilities. However, change is needed in the way funding schemes are structured and project proposals

assessed to support such an approach more effectively. In addition, more training is needed for western academics to help them better understand the benefits of interdisciplinary research and how best to undertake such work.

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