# Comparative Insights for Community-Based Co-design: Bi-directional Inclusive Strategies Between Marginalised Communities and Researchers in Participatory Design

KASPER RODIL, Aalborg University, Denmark, kr@create.aau.dk

SHORTY KANDJENGO, the! Khuisi community, Namibia, shortzkadjengoq@gmail.com

DONOVAN MAASZ, Namibia University of Science and Technology, Namibia, maaszdonovan@gmail.com

HASIB AHSAN, IT University of Copenhagen, Denmark, hahs@itu.dk

LARS RUNE CHRISTENSEN, IT University of Copenhagen, Denmark, Lrc@itu.dk

Participatory Design (PD) aims for inclusivity, but the level of inclusion varies widely. Inclusion often means integrating stakeholder perspectives into design processes, often neglecting bi-directionality, where communities also have agendas. True collaboration rests on mutual understanding, acknowledging the dynamic nature of community collaboration and the holistic impact of shaping relationships. This workshop will explore collaboration challenges and practices with marginalized communities. It will draw on the organisers' extensive experiences with diverse groups, including nomadic and resettled indigenous communities in Namibia, Rohingya refugees in Bangladesh, and Syrian war refugees in Jordan. The workshop encourages sharing and reflecting on experiences with marginalized communities, welcoming contributions from participants to enrich discussions and enhance collective understanding of collaborative practices.

## 1 INTRODUCTION

While Participatory Design as a methodology aims to be inclusive, the depth and breadth of inclusivity vary significantly across design contexts. Often inclusion is considered on the ability of researchers to accommodate other perspectives into design processes.

Classic PD emerged in the 1960s and 1970s in the post-industrial work contexts in North European countries as an ideological and collaborative design orientation facilitating the knowledge of technology design partners in the decision-making process of systems design [7], [6]. Since then, this methodology, which we know as Participatory

Design, has been adopted and appropriated in new contexts across the globe. A prominent application called Community-Based Participatory Design/Co-Design (CBCD) is characterised by being situated in primarily rural, under-resourced, marginalised communities - often in the Global South [2] Till et al. [9], [4].

Establishing useful collaboration in communities embodies a change to the PD methodology, for example, while the methods of PD are exported, they have to be appropriated to these new contexts [3]. Both due to remoteness resulting in longer field trips and to establish rapport, "...much more time is spent on conversations that are not directly relevant to the design but essential for building trust and relationships." [8]. One of the distinguishing features of CBCD is the constructional factors, such as the historical, socio-political and economic influences shaping these communities, which ultimately manifest how collaboration can unfold.

One could argue that inclusion is bidirectional, communities have their own agendas, and meaningful collaboration only exists on a bedrock of mutual understanding and acceptance that community collaborative mechanics are dynamic. Collaboration is more holistic than traditional PD and ".. located in a space between the designer's and local views of participation, which are sometimes both ambiguous and conflicting."[5].

Within the framework of Action Research, it is common for academic institutions to form partnerships with local NGOs or government agencies for the purpose of technology design and implementation. Such alliances can inadvertently pressure marginalised communities into participation, particularly if these communities have historically or are currently benefiting from the support provided by these NGOs and government entities. The community may feel a sense of indebtedness or fear the loss of future support for their livelihood, which could compel them to participate in the design processes even when they do not see a necessity for the technology being designed[1].

This workshop will focus on the comparative experiences, challenges and practices of collaboration with marginalised communities across various contexts.

As a starting point, the workshop organisers will facilitate the workshop through long experiences with different forms of communities, such as nomadic and resettled Namibian indigenous communities, Rohingya refugees in Bangladesh (forcefully displaced Myanmar Nationals), and Syrian war refugees in Jordan as exemplar cases. To avoid insularity, other cases, thoughts and reflections on working with marginalised communities brought to the workshop by its other participants will become the subject of reflection and conversation and will be very welcome and facilitated.

## 2 REPOSITORY OF COMMUNITY-BASED COLLABORATION ENGAGEMENTS

At the workshop's core is the repository of community-based collaboration engagements (CBC) stemming from the many encounters the organisers have experienced with marginalised communities in diverse contexts. For example, from participatory projects with displaced war refugees who are now migrants and composed as new communities in new countries or indigenous communities embarking on green energy transformation, and more. Before the workshop, all 9 engagements below will be created with complete backstories and rich audio-visual content from one or more of the contexts as a proper immersive runway for the participants to familiarise themselves with the following topics.

**(1)** Communities may have historical reasons to mistrust researchers due to past exploitation or negative experiences with academic or institutional entities. This history can make it difficult for researchers to gain acceptance and build productive relationships within the community. **(2)** The research agendas, often shaped by academic frameworks, may significantly differ from those of the marginalised communities. These differences can lead to misunderstandings and tensions regarding the goals of the participatory design process. Marginalised groups may have immediate, practical needs that differ from the broader academic goals of the researchers. Aligning these differing priorities is a delicate balance, **(3)** Limited technological access and knowledge can exclude communities from participation as they may lack

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both interest and experience with digital technology, **(4)** legal and political issues, such as land rights and sovereignty, can complicate participatory design. There may be regulations or bureaucratic hurdles that hinder the involvement of, e.g. refugees or indigenous peoples in projects that affect their communities, **(5)** different concepts of ownership and intellectual property may be a challenge when communities have different views on concepts like ownership and intellectual property, especially regarding communal vs. individual rights. This can lead to conflicts in participatory design, particularly in projects involving traditional knowledge or cultural heritage, **(6)** a lack of recognition of traditional knowledge systems and methodologies may also lead to their marginalisation in the design process, and **(7)** managing and aligning expectations about what the design process can realistically achieve may be challenging. Over-promising or under-delivering can lead to frustration and disappointment. Relatedly, questions about the long-term sustainability and impact of the design outcomes can be a source of tension. Marginalised communities, in particular, might be concerned about whether the solutions will continue to serve their needs in the future rather than merely being an academic win for the researchers.

Addressing these challenges and tensions requires a sensitive, empathetic approach that values the perspectives and experiences of all participants, researchers and community members alike. It involves active listening, open communication, flexibility, and a commitment to an inclusive, equitable design process. It is a priority to ensure that the design process and outcomes reflect all participants' diverse needs and voices.

## 3 OBJECTIVES

The workshop organisers have collectively participated in numerous workshops over time, where there is a sense of not yielding meaningful outcomes or lacking actionable results. With this in mind, the organisers have carefully considered the objectives:

- Explore and Compare Inclusion Strategies: Delve into strategies employed with numerous (marginalised) communities with participatory design and CBCD. Understand their nuances, effectiveness, and adaptability across different contexts.
- Identify Challenges and Success Stories: Uncover unique challenges practitioners face worldwide and learn from possible successes and stories of failure. These real-world examples will enrich your understanding of inclusive design practices.
- Hands-On Learning: Engage in practical exercises that allow you to apply comparative inclusion strategies firsthand. Gain actionable skills and techniques that you can immediately implement in your work.
- Establish a Peer Support Network: Facilitate networking opportunities among workshop participants to establish a peer support network. By fostering connections and sharing resources, participants can continue to collaborate, exchange ideas, and provide mutual support beyond the workshop, enhancing the sustainability and impact of inclusive design initiatives.

## 4 WORKSHOP STRUCTURE

**Format: half-day, in-person only**

**Target Audience:** This workshop welcomes designers, activists, community leaders, academics, and practitioners in the field of participatory design, especially those with a focus on diversity and inclusion who have experience with or are curious about Community-Based Co-Design.

The workshop will adhere to any program breaks to allow conference networking and ample rest between sessions.

Opening: Connecting with Community Stories and Contexts: Participants are welcomed and introduced to the workshop themes and objectives. After a 1-minute madness introduction by the participants, the organisers will introduce the CBC repository. The participants will embark on a guided journey and foster empathy by immersing themselves in the stories, traditions, and challenges of marginalised communities and researcher engagements presented by the organisers as rich multimedia.

Challenge Expedition: Interactive Exploration: Participants form expedition teams and set out on an interactive quest to holistically uncover and document bi-directional tensions that lie outside of immediate awareness. Teams contribute to the CBC repository through digital collaborative tools. Meanwhile, engaging in dynamic activities through encountering challenges designed to simulate real-world scenarios.

Cultural Exchange: Sharing and Learning: Expedition teams return to a central gathering space to share their discoveries and insights in a lively, non-formal setting. Participants engage in hands-on activities, storytelling sessions, and cultural exchanges with community members, deepening their understanding of indigenous perspectives.

Reflective Dialogue and Closing Ceremony: Participants engage in a reflective discussion session to process their experiences, share learnings, and discuss the broader implications for participatory design and CBCD. Facilitators guide the conversation towards actionable insights and potential avenues for future collaboration and research.
The workshop concludes by honouring the contributions of participants, acknowledging their shared journey and commitment. Participants receive a token of appreciation, symbolising their ongoing commitment to supporting marginalised communities.

## 5 EXPECTED OUTCOMES

Participants will gain actionable insights and resources to foster inclusivity in participatory design (PD), including a deeper understanding of how different marginalised communities and researchers can introduce inclusivity in PD.

Network building and sharing of opportunities are valued elements of the workshop, and it is envisioned to lead to voluntary involvement in a collaborative journal article and explore joint research proposal development.

## 6 EXPERTISE OF THE ORGANISERS

It is the intention that all organisers are present at the workshop.

**Kasper Rodil** is an Associate Professor at Aalborg University, Denmark. Kasper has collaborated with indigenous communities in Namibia for more than a decade on rurally situated emerging tech innovations, such as mobile systems and virtual reality. Kasper has experience with the Participatory Design Conference through having published several papers, co-facilitated a workshop on community-based co-design, reviewed since 2012 and co-organized PDC'14,'16 and 2024.

**Shorty Kandjengo** is acting Chief to the !Khuisi Traditional Community and project coordinator to Donkerbos camping site. Shorty has facilitated many community-research interactions of both development-type and more blue sky research and brings an important insider view to the workshop.

**Donovan Maasz** is a Ph.D. candidate in Computer Science who adeptly bridges academia and marginalised communities through inclusive strategies. With expertise in participatory design and indigenous knowledge preservation, he

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champions equitable partnerships for impactful collaborations. Donovan has been actively engaged with communities for 9 years, contributing to various projects aimed at fostering mutual understanding and empowerment.

**Hasib Ahsan** is a post-doc at the IT University of Copenhagen, focusing on the intersection of IT with climate change, refugee crisis, agriculture, and healthcare. With a background in development studies and a PhD in digital intervention, he co-designed and developed digital health services for Rohingya refugees in Bangladesh and Syrian refugees in Jordan. Before joining academia, Hasib spent 10 years as an ICT4D practitioner where he led co-designed ICT4D projects in collaboration with governments, NGOs, aid agencies and marginalised communities in Bangladesh and Nepal. These externally funded, large-scale projects in digital agriculture and health have served over 200,000 individuals.

**Lars Rune Christensen** is an Associate Professor at the IT University of Copenhagen, Denmark. With a background in anthropology and software development, he focuses on interventions and co-design in humanitarian settings. His expertise combines human social and cultural understandings with digital interventions, enabling him to address the intersection of technology, healthcare, and societal challenges. Lars has, for example, collaborated with Rohingya refugees in Bangladesh and Syrian refugees in Jordan.

## 7 ADVERTISEMENT, EQUIPMENT AND PARTICIPANTS

**Participants**: Minimum 5 people, maximum 15 (excluding organisers)

**Equipment**: Venue, projector and screen for presentations and visual aids, Flipcharts, whiteboards, or easels for brainstorming sessions and group activities, Markers, pens, and sticky notes for participants to write and share ideas, Access to stable Wi-Fi for online resources. The organisers will enable all digital collaborative tools for seamless documentation.

The workshop will be advertised on individual LinkedIn profiles (almost 4000 followers combined), on professional groups (such as PhD for Participatory Design), through local research institutions (3 universities) and made visible on the PDC2024 website.

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