

# ACHIEVING GRASSROOTS INNOVATION THROUGH MULTI-LATERAL COLLABORATIONS: EVIDENCE FROM THE FIELD

#### Silvia Buitrago Guzmán, Pedro Reynolds-Cuellar

Collaborations with academia, international organizations, governments and civic society are both an opportunity and a challenge for grassroots associations to achieve their mission while maintaining their values and philosophy. Little research has been done on programs leveraging these collaborations to increase capacity for community-based, peer-production and innovation in economically constrained environments. This article presents the case study of a grassroots organization, C-Innova, in its leading role as organizer of two international design summits hosted in Colombia in 2015 and 2016. The goal of these summits focuses on increasing participants' understanding of design and technical skills, while fostering aspects of self-fulfillment and psychological needs. These experiences attempt to support and catalyze the emergence of local innovation initiatives. Both summits were organized and implemented through partnerships with local government, cooperation agencies, universities both local and international and members of civic society. We analyze the success of these collaborations across three dimensions: (1) program's objectives, (2) systemic changes across partners as a result of these partnerships and (3) structural improvements and challenges for C-Innova. We find significant changes across all dimensions, suggesting this as a viable model for grassroots organizations to achieve their goals without significantly compromising their core values and beliefs.

*Keywords:* grassroots organizations, partnerships, design education, appropriate technology, international development

### by Silvia Buitrago Guzmán & Pedro Reynolds-Cuellar

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## INTRODUCTION

There is a long tradition in the field of international development that considers both technology development and innovation change as frameworks that can be arbitrarily applied in new contexts. This tendency is well documented in the literature and has landmark examples (Borland, 2011; Kraemer et. al, 2009) that portrait this dynamic. Development projects across governments, multilateral institutions, NGOs and lately, social enterprises, are known mechanisms for this. In many instances, this view has created a culture of assistencialism which included practices that involve a degree of generosity from one agent to another, reflected in the offering of capital, knowledge or scientific advances for the improvement of the underdeveloped (Rist, 2014), that negatively correlates with the establishment of local capacities, crucial among communities to enable them in addressing their own challenges. It is only until recently that this perspective has started to shift towards more inclusive platforms for development that bridge this gap. This absence of critical mass in bottom-up initiatives is one of the reasons why numerous communities are still left in vulnerable situations. According to the World Bank (World Bank Group, 2016), by 2013, 10.7% of the world's population was still living under the poverty line.

A response to this disparity has taken the form of communities organizing themselves, building their

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own capacity and becoming central players in crafting the story of their development. This approach is not new, with instances dating as early as the 1960's in the context of the Green Revolution in India where local groups started organizing and addressing development issues through communitydriven initiatives. One of the mechanisms that fuelled this revolution was the possibility of taking control over technological change. The impact of agricultural technology for the Green Revolution was significant (Evenson & Gollin, 2003) and since then, technology remains a fundamental aspect of allowing these type of socio-economic dislocations to happen (Smillie, 1991).

In this paper we focus on how these communitybased groups establish partnerships in order to meet their goals. Through the lense of grassroots innovation, and using the case study of a Colombian organization, we provide insight into how these partnerships and its branching actions, can support and disrupt local dynamics.

# BACKGROUND

In our effort to establish how partnerships can enhance and disrupt actions taken by grassroots organizations in achieving their goals, we start by providing context as to what grassroots organizations are and the role they can play as a mechanism of for development and selfdetermination. Grassroots associations can be defined as a subtype of non-profit group. Locallybased, autonomous, with a bottom-up orientation and composed of individuals that manifest voluntary altruism as a group (Smith 2000: 18), they use a formal and informal organizational structures in order to accomplish their mission (Smith, 2000). Smith (2000) establishes three defining factors in his definition of these organizations: associative, local and volunteer-based. These elements can be found in several conceptualizations of the term in the academic literature with differentiated emphases according to particular interests when meeting the needs of specific communities (Thake, 2004) and philosophical orientations (Cairns et al., 2006).

Through participation and membership, grassroots associations have built networks of social bonds in several neighborhoods and communities all over the world (Smith et al, 2017).

A key element in the dynamics of these groups is their autonomy, which is deeply connected to democratic systems and societies that value difference, acknowledge legacies from different cultures and give importance to the diverse use of public goods. Since grassroots associations are constituted and grow from the bottom up, their autonomy, especially related to external linkages with other organizations, is highly valued. This autonomy, translated in being able to act without having to wait for other decision makers, allows them to react more efficiently to local challenges, opportunities and crises. Nevertheless, collaboration, exchange and sharing of different types of resources, knowledge and skills with external agents is in the very nature of most grassroots associations and is a common response to contemporary contexts (Soteri-Proctor, 2016).

Setting up external linkages implies the establishment of structural connections between different stakeholders. This process begins with the establishment of a relationship at the interpersonal level between individuals, in which perceptions, attitudes, philosophies and trust, play an important role. Although good relationships are not a guarantee of partnership success, bad interpersonal relations are definitely a threat. Negotiating what level of control partners can have over projects and reflecting how such partnerships support the achievement of shared goals are necessary steps for grassroot associations to be able to ensure autonomy and independence (Smith, 2000).

In the negotiation process, dilemmas emerge for grassroots associations; to make part of its principles and philosophy more flexible in order to achieve the apparently universal technological tendencies, which are usually the direction government's' innovation policies are targeting. This action will allow grassroots associations to access

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supports and benefits that will make possible the continuity of their initiatives and It will grant a larger scale dissemination, taking into account that the origin of most of grassroots associations the shared perception of social injustices and environmental problems, which have been the result of these conventional innovation models and trends. In other words, insert oneself in the contexts and situations that one seeks to transform substantially. (Smith, Fressoli, & Thomas, 2014).

Regarding what affiliations grassroots associations can pursue, Smith (2000) classifies them in two kinds: polymorphic, that accepts sponsorship from other organizations, establishes general guidelines for action and confers certain levels of control in decision making, and monomorphic, which accept collaborations primarily at a local level and within stakeholders who share a similar status in a given hierarchy. This provides them with freedom to formulate and run their policies, keep control over resources and prioritize autonomy when using external funding (Smith, 2000; Smith et al, 2017).

Partnerships with academic institutions, multilateral organizations, government and civic society are part of the current institutional and social landscape worldwide and may offer the opportunity to achieve grassroots associations objectives. Partnerships have structural advantages such as the prolongation of grassroots associations lifespans/longevity, greater effectiveness in its actions (Wollebæk, 2009) and maximization of resources and skills available in response to the scarcity of financial support. They also offer greater recognition and scale of activities with a multi-actor approach and the construction of a more open and collective decision-making process without this implying losses in autonomy (Berger et al, 2016).

Depending on the actors involved, partnerships can have different characteristics and roles. For example, with regards to collaborations with academic institutions, Stevens, Hayman and Mdee (2013) argue that mediation by individuals who have experience both in academia and in the field is necessary. Referred by the author as 'pracademics', these actors can transit between academic institutions and grassroots associations, articulating and enhancing collaborations between stakeholders and building upon a dialogue between theory and field data and experience (Stevens, Hayman and Mdee: 2013).

Underlying different types of partnerships is the concept of collaboration, understood as a formal or informal exchange between organizations that seek to achieve a set of objectives that each one cannot fulfill separately. A dynamic process of relationship building with various levels of work that is divided, shared or delegated between the actors involved (Berger et al, 2016). Related literature suggests that effective collaboration needs to be built upon conditions and mechanisms that can support it with common agreements and objectives. In addition, developing a shared organizational identity in order to create a common culture, is also necessary. (Berger et al, 2016; Brinkerhoff 2002; Fox, 2010)

Collaborations can also be described in different forms. Najam (2000) proposes a framework based on preferences and interests of each stakeholder in relation with their resources and goals. When both aspects are synchronized and neither party considers their actions and intentions to be challenged, cooperation emerges. When there are divergent strategies but convergent goals and the parties complement each other in the achievement of a shared end, a complementarity relation arises with the possibility of transforming into cooperation. Najam (2000) also includes two other relations in which there is no place for collaboration; confrontation, a case where players consider each other's strategies and goals to be unethical, and cooptation, where goals are dissimilar but resources align, opening the door for a player to attempt changing other players' preferences in order to achieve a goal. These relations are fundamentally unstable and often transitory (Najam, 2000).

Austin (2000) suggests that the articulation between actors is a multifaceted relation that transforms over

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time and usually evolves in three stages as a *collaboration continuum*. A philanthropic stage, when one of the organizations acts as a donor in response to a specific need, which Austin considers a potential starting point for deeper collaborations. A transactional stage, when partners increase their interactions, begin to engage in joint activities and through connections a meaningful relation evolves. Finally, an integrative stage, where organizations work together finding alignment between their missions and activities merging in a single and temporary organization with an identity different from each of the partners (Austin, 2000).

Because of its dialogic nature, collaborative work stimulate a constant exchange of opinions and ideas. Learning and knowledge-sharing processes are at the heart of these interactions developing and progressively building an environment conducive to the emergence of innovation. In other words, collaborative work, and more specifically partnerships, are methodological characteristics of the emergence of innovation and there is an interdependency between collective learning processes and innovation. (Hall et al, 2004). Innovation processes developed at the grassroot level require a deep observation of the local context needs and challenges and a focus on social learning processes and social networks within the community.

Seyfang and Smith (2007) propose a definition of grassroots initiatives as "networks of activists and organisations generating novel bottom-up solutions for sustainable development; solutions that respond to the local situation and the interests and values of the communities involved". Understood as clusters or chains, grassroots organizations are a source of innovative diversity that extend the potential for community development and who found in innovation a natural choice. Meeting social needs is the primary function of grassroots organizations; providing services in circumstances where the market cannot. Their ideological commitment seeks to polemicize hegemonic systems and proposes changes in the priorities of communities and individuals (Seyfang and Smith, 2007). In that sense, grassroots associations question the established relation between low-levels of education, poor economic condition and low-levels of creativity. This implies a political dimension of the organization that translates in a vision for the community embodied in the projects they engage in and the way they instill their communities with a sense of self-sufficiency and confidence.

However, this organization model also has critical views, some authors find cracks in Communitybased and - driven development projects structures, Mansuri and Rao (2004) from the review of impact evaluation studies and ethnographic studies of this type of projects, ask if community participation improves the targeting of benefits, in this respect and following what is proposed by Conning and Kevane's (2002), affirm that community participation can facilitate access to the necessary information and can ensure higher quality monitoring in the implementation of the programs, optimizing their execution, but, at the same time, there is a challenge in terms of the community's capacity to manage information and control the resources in a context loaded with personal interests and affections in dispute. In the same line, evaluations of community-based targeting mechanisms, like the study developed by Galasso and Ravallion (2002) of an Anti-poverty program in Bangladesh (Bangladesh's Food-for-Education Program) affirm that despite the fact that a significant percentage of the poorest population had benefited from the program, the structural characteristics of the communities affected the performance, thus, the most isolated villages or areas with the highest level of land inequality had a lower targeting of benefits. In other words, decentralized benefit targeting processes in which the community participates may be constrained by local inequality. For Mansuri and Rao the sustainability of these community-based initiatives depends on building an enabling environment, in which government commitment, the responsibility of community leaders and a careful and well-designed monitoring and evaluation systems, can prevent

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projects from being dominated by elites and benefiting the most vulnerable population.

In order to dive deeper into the mechanics of grassroots organizations' partnerships and collaborations we will use the case study of C-Innova, an Innovation Center for Appropriate Technologies and Education in Colombia. This initative explores and celebrates the creative capacity of communities and the advantages of leveraging traditional knowledge as a component for innovation. Data from two international design summits organized and hosted by this local innovation center in 2015 and 2016 shows evidence of the aforementioned mechanisms, allowing us to offer insight into how partnerships can play an important role in the design, implementation and continuity of projects led by grassroots associations to reach their mission.

### Case Study: C-Innova, Innovation Center for Appropriate Technologies

C-Innova is an innovation center with the mission of connecting vulnerable communities with appropriate technology and design. It was founded in 2015 as part of the International Development Innovation Network (IDIN) initiative, an umbrella organization created and operated by a consortium[1] of academic institutions led by the Massachusetts Institute of Technology (MIT) and housed at the MIT D-Lab. The organization was created through funding from the United States Agency for International Development (USAID) under its Higher Education Solutions Network (HESN) initiative, part of their Global Development Lab unit.

C-Innova houses a community of close to 200 people most of which have participated in the center's activities. A large percentage of its members are physically located in Colombia with a small group living abroad mostly in Latin America and the US. The center specializes in technology design and design education activities with a strong focus on working with vulnerable, marginalized populations both in the context of poverty alleviation or postconflict transition. C-Innova operates out of a physical space located in Bogotá, the capital city of Colombia, from which members of the center can formulate, design, establish and operate their projects. Because of its close community ties, one of C-Innova's priorities is to implement design education projects in the form of interventions, workshops or summits that can be held in the field along with communities. C-Innova is also growing a number of projects operated from the communities in order to expand its reach beyond any geographical constraint. On top of that, the center is open to community members who can commute to the city. These actions are possible thanks to numerous partnerships the center has grown including collaborations with city governments, NGOs, public and private universities both in Colombia an abroad and local communities.

C-Innova was created in response to two main needs. On the one hand, a desire of members from vulnerable groups and university students to access an open space where they could work in the design of appropriate technologies. On the other hand, a need to create bridges between academia, industry, government, and members of vulnerable groups approaching technology as a platform for development. The organization was established as a local non-profit by Colombian citizens, and operates legally under Colombian regulations. The organization is comprised by a physical space located in Bogotá, where members from vulnerable communities, university students, research groups and general public are engaged in actively participating in achieving the center's mission. The space includes access to non-digital fabrication, electronics design stations, working spaces and storage. The infrastructure does not include digital fabrication given that these techniques are not easily accessible by the communities organization seeks to serve. Along with the physical space, users have access to technical support, mentorship, professional development, training, funding opportunities, networking, as well as multiple mechanisms to become active members and enroll in projects operated by the organization. The center

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sustains itself through a combination of activities that include consulting, product design, grant applications and events. Inevitably, this has led C-Innova to establish a large number of partnerships in order to both achieve its mission and guarantee financial sustainability.

## PARTNERSHIPS AND DESIGN SUMMITS AS TEMPORARY MAKERSPACES

One of the main strategies C-Innova has used in order to achieve its mission is the implementation of a model for technology design education created at the MIT D-Lab called the International Development Design Summit (IDDS). The IDDS summit is a twoweek to one-month educational experience that combines aspects of co-creative design methodologies, technology creation and community building. The summit serves as a platform to mobilize communities around the idea of addressing one's own development challenges. The main goals of the summit are to disseminate the principles of appropriate technology design, to create technology prototypes that can effectively address development challenges and to activate communities by making them participants of the experience and central to the process of technological co-creation. The model was created in 2007 by Amy Smith, and since then it has been implemented 20 times in up to 13 countries.

The summit is built upon a philosophy known as the 'IDDS Spirit' comprised by five main guiding principles: Co-Creation, Empathy and Resilience, Diversity and Inclusiveness, Resourcefulness, Hands-On work and Fun. These principles are embodied and interpreted flexibly by the organizing team of each IDDS. This means that although summits are built upon the same principles, no IDDS has interpreted them in the same way. Each summit gathers between 40-60 participants coming from a diverse range of backgrounds and education levels and connects them with local communities. Summits are conceived and implemented by a local organizing team who acts as a governing entity. Organizing teams submit their summit ideas through a selection process that chooses those who will receive support every year. Support for summits come in the form of partial funding, access to human resources, consultancy and assistance with implementation. As teams build the vision for their summits, other actors inevitably come into play. These actors are usually organizations such as universities, NGOs, governments, industry and selforganized communities. Given this dense network of stakeholders and the fact that summit are built upon a strong philosophy rooted in a unique approach to development, aligning goals, visions and governance becomes a complex process.

The process leading to propose and implement an IDDS summit includes extensive field work with partner communities and other stakeholders. This work includes a number of considerations that go from safety on the ground to needs assessment up to the planning process of continuity strategies after the event is over. In fact, the summit is designed to serve as a catalyzer of previous work from all communities, stakeholders and the organization spearheading the initiative. Also, because these summits require numerous partnerships in order to be deployed, they represent a unique opportunity for grassroots associations to leverage resources, advance their mission, increase their human capital and expand their networks.

### IDDS Zero Waste 2015. Cali, Colombia. Structure and background

Starting in 2014, a group of Colombian professionals from the National University of Colombia[2] and MIT started collaborating with the idea of taking the IDDS model to Colombia. With support from the IDIN network in the form of a formal partnership including access to its network of innovators, financial resources and technical support leading to the summit, the team was able to put together an organizing team comprised of volunteers from more than 5 countries. The local team established a formal partnership with a regional university, the Universidad del Valle[3] who provided financial resources, access to communities, and connections

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with the local government. Because all partners at this stage were academic institutions, aligning goals, expectations, governance and philosophies was a fairly straightforward process. Through previous work done by the regional university in collaboration with the local government, a formal alliance with the City's government was established through the mayor's office and the Department of Environmental Management[4].

This partnership provided a strong connection with local waste picker associations and brought visibility to the summit. Also, it became strategic in order to get buy in from communities given the particular tendency of waste picker groups in the region to operate predominantly at a local level. Lastly, a thorough fieldwork process of establishing needs and aligning expectations across waste picker groups (communities) was carried out together by all partners. Once a shared consensus was reached, an informal partnership was created with communities. Because these groups lack the legal and organizational infrastructure to be able to enter formal partnerships with other entities, they rely on trusted relationships, previous experiences and referrals in order to establish external collaborations.

Given the fact that a good portion of the financial support for the summit was provided by the IDIN network to the local organizing team, the governance of the summit fell primarily on this team. They laid out an initial vision and iterated over it as partnerships were established. Because all government, waste picker groups and academic institutions differ in vision and approach, aligning expectations with regards of what cost-benefit relation each partner will enter by being part of the summit was a complex process. Academic institutions are primarily motivated by advancing knowledge and providing meaningful opportunities for their students. Governments pursue mechanisms that can make the tasks and processes they manage as efficient and economically sound as possible, while maintaining the guality they provide to citizens. Waste picker groups are driven first and

foremost by a desire to increase communal well being across all members including financial benefits, job safety and professional development among others.

The goals of the summit were created through a shared Theory of Change (Weiss, 1995) that combined input mainly from the organizing team. The main objectives were: (1) to provide communities and participants of the summit with exposure to co-creation and design education, (2) to provide a viable mechanism for waste pickers to be technology creators, alleviating investment and making government initiatives geared towards making the waste management system of the city sustainable and efficient (3) to connect both partners and participants of the summit with a global network of innovators as well as with financial opportunities and technical support. One objective that emerged during the summit was the creation of an innovation center as part of the continuity strategy. This agreement became the inception of C-Innova as a grassroots organization.

Following the closing of the summit, C-Innova, the National University of Colombia and the Universidad del Valle, continued to collaborate organizing follow up events, offering technical support to alumni and preparing a forthcoming IDDS summit. Connections with communities were maintained for a period of time after the summit and further work with some of these groups has been done as part of C-Innova's activities. With sponsorship from the IDIN network, C-Innova offered a small *'micro-grants'* program that provided continuity to projects developed at IDDS. The program ran for four months and allowed further product iterations. However, none of these projects became financially sustainable and their development was not further pursued.

## IDDS Education 2016. Bogotá, Colombia. Structure and background

With C-Innova established as a legal non-profit organization, a second summit was formulated in initial collaboration with the National University of

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Colombia. The organizing team was composed primarily by former members of the IDDS Zero Waste in 2015. A good portion of this team belonged to the core group working in crafting and advancing C-Innova's mission. The theme of the summit was decided jointly with the National University of Colombia based on their mandate to support the advancement of education in the country and their commitment to connect the university with elementary and secondary education. Although the summit didn't have financial support from the IDIN network, access to the human resources, branding, technical support and advice was obtained. Moreover, because the main funder was the National University of Colombia with C-Innova acting as the main organizer, governance was shared between these two institutions.

Because both C-Innova and the National University of Colombia were aligned in their interest of connecting arts education with the theme of the summit, a partnership with a local art school[5] was established. Although this partnership was established primarily to guarantee a space to host the summit, alignment in values and philosophy was necessary in order to guarantee a harmonious collaboration between all actors. Finally, and through the networks provided by both the university and the arts school, partnerships with schools were created. A combination of elementary and secondary, public, private and communitybased schools became partners of the summit. Alignment with schools was particularly challenging given their strong positions around education as well as their entrenched politics and management.

A theory of change crafted a shared vision for both C-Innova and the National University of Colombia. The document included the following objectives: (1) to provide communities and participants with the opportunity to experience hands-on, co-creative design methodology applied to the field of education, (2) to provide communities with concrete projects that help advance their academic vision and that are generalizable to other contexts and, (3) to provide participants with project continuity via financial and technical advice.

Following the end of the summit, a number of teams were housed at C-Innova for technical support. Although a shared fund for project continuity was discussed, it was not implemented which resulted in most projects becoming idle or dissolving after their initial deployment. In terms of partnerships, both C-Innova and the National University of Colombia continued to collaborate in advising teams and putting together a proposal for another summit. A handful of partner communities are still connected with C-Innova through projects, technical advice, access to tooling and fabrication space. Because of the eminently transactional nature of the partnership with Estación Arte Viva art school, no further collaborations emerged.

## DISCUSSION

In the context of Design Summits, and in particular in the light of the many stakeholders involved, how did these partnerships unfold? In planning and executing these types of summits, objectives and principles were initially proposed by C-Innova focused on the importance of creating and shaping a community around the idea of co-creation and empowerment through design. Partnerships reshaped these principles according to stakeholders interests and visions creating new agreements shared by all actors. This collaboration continuum. where different activities and dimensions of relationships are tested on a permanent basis (Austin, 2000), provides opportunities for partners to experience changes at different levels, including shifts in organizational structures and the achievement of shared goals.

# Local change and shared program's objectives

Because both C-Innova's and IDDS' goals are aligned in that they ought to connect vulnerable communities with design education as part of a new way to do development work, there is great incentive for achieving objectives from both parties.

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A quantitative analysis looking at outcomes for participants in skills and attitudes pre and post summit from the IDDS in 2016, shows an increase in technical skills, attitudes towards collaboration and learning of design methodologies (figures 1, 2 and 3). Although there is no formal evidence for transfer of knowledge across domains, short term change in participants has been observed through further work done in collaboration with C-Innova. In fact, both C-Innova's core team and volunteer base are comprised primarily by IDDS alumni. In this role, alumni have the chance to become facilitators, support product development, design and manage projects among others. These activities are a great opportunity to transfer abilities acquired during summits and help cementing key principles of design, community work and technical skills. This in exchange provides C-Innova with key human capital to advance its mission.

Partnerships in the context of IDDS design summits appear to be an appropriate mechanism to achieve objectives across partners. Along with the analysis presented above, partners also report having reached their target metrics. For example, the DAGMA group included training on how to build prototypes created at the summit as part of the professional development portfolio offered to waste picker associations. Waste picker associations strengthen relationships among them allowing them to organize applying to larger grants and government contracts.

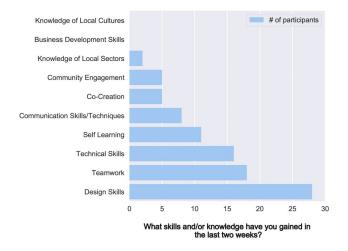
Through IDDS Education in 2016, schools gained access to pedagogical material to be used in the classroom. Projects served as objects to rethink curricula and helped inspire teachers to make changes in their practice. Some of these teachers continued working together after the summit sharing experiences and experimenting with the projects developed throughout the summit.

## Changes in organizational structures

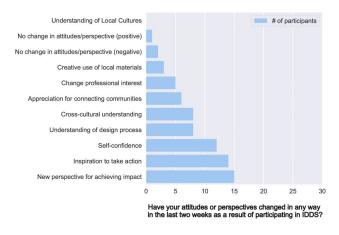
Multilateral alliances like the ones described in this paper also represent a unique opportunity for

systemic and structural change. Because stakeholders become exposed to new frameworks and philosophies of work, it is likely for them to use this experience to reflect upon their own practice. One example of this comes from the IDDS Zero Waste summit where the Universidad del Valle created a new product design course in their Sanitary and Environmental Engineering department called "Art, Design and Sustainable Innovation". The course focused on new designs for waste pickers transportation carts and was the first interdisciplinary effort at the department combining faculty from design, engineering and social sciences. Being able to update curricula based on new methodologies is the type of impact these partnerships should strive for. Another instance of these type of changes was observed in the context of our government partner. Following the positive outcomes of the summit in increasing waste pickers agency in implementing infrastructure and technology changes within their associations, the DAGMA unit used these results to inform new policy towards making the waste management system of the city more sustainable. The National University of Colombia also integrated the IDDS methodology as part of its extended education strategy. Not only they were part of the organizing team for summits in 2015, 2016 and 2017, but they will be running their own summit in 2018. Finally, the establishment of C-Innova as a grassroots organization represents a significant change in how development is structured and approached in Colombia. Because of its strong critique to assistencialism and its continuous effort for bringing local ingenuity to surface, these organizations constitute a tangible and applied counterexample to traditional top-down development approaches. Although further work in systematizing impact metrics for programs implemented by these organizations is needed, especially in the context of multilateral partnerships, we believe these case studies are showing promising results.





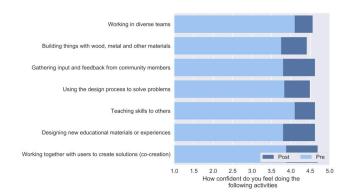






### Challenges

The temporary nature of IDDS summits and the inherent difference in partners goals creates several challenges for grassroots associations entering these type of alliances. Grassroots organizations' main focus are the communities they serve which can make the process of finding shared alignment with partners who hold different agendas complex and draining. A series of interviews carried out with members of C-Innova reveals some aspects of these complexities. As one of C-Innova's members mentioned: "What IDDS has is that it's like a very strong injection of energy but it dissipates, right? Because relationships are built [more] over time [and] there is very little time to say how specific relationships were built"[6]



### Fig. 3: Aggregated data from a qualitative survey from IDDS Education in 2016. Data collected pre and post-summit and coded for analysis. N=49. Scale is 1 - 5.

Particularly, aligning objectives with government instances has proven to be a challenging task. Because governments serve public agendas that are crafted prior to enter these partnerships, they are less flexible when aligning objectives and philosophies with other stakeholders. Also, given the inherent culture of politics in the country, these units have become focused on short term outcomes that can render positive indicators during a given mandate. From the perspective of a grassroots organization, ensuring successful alliances with governments given the aforementioned aspects may require choosing partners in government depending on their particular agendas as well as their timing across mandate periods.

Sustaining continuity, keeping momentum and ensuring that projects, collaborations and transfer of knowledge are happening can become a financial burden for a grassroot organization like C-Innova.

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Because of the difficulties in guaranteeing financial investment post-summit, the organization is left with the task of continuing the work without economic compensation. Partners may differ in their long term impact vision and, because continuity represents financial investment, they may find continuity to be unfeasible. Exacerbated by the fact that most communities needs surpass the organization's operative capacity, C-Innova's mission and philosophy ends up being disrupted. Is the relation cost-benefit fair when projects are difficult to carry over after the summit? What is the long term impact of these dynamics for communities and participants who partake in summits? Is there a better way to structure governance after the summit? Ongoing research by C-Innova aims to answer these questions. Also, considering partners' long term plans, as well as allocating financial resources for continuity purposes may be beneficial for grassroots organizations to be able to fully engage in further supporting work after partnerships are concluded.

Impact metrics also remain a challenge. Because these partnerships cater to several stakeholders objectives, maintaining a structured pipeline for monitoring and evaluating progress is difficult. Generally speaking, each partner holds metrics based on their expected outcomes. However, having different metrics makes the process of quantifying impact problematic. On the one hand, academic institutions such as universities can measure impact using indicators for knowledge production and transfer as well as public and private resources raised for research development and innovation (Sierra, 2012). On the other hand, C-Innova can measure impact through observing changes in individual and collective capacity building, job creation, improved access to services and facilities, greater sense of community and civic engagement. Being able to share instruments and frameworks for measuring impact across partners is crucial to systematize these experiences.

Finally, although there is a deep sense around the importance of local knowledge and the need to establish strong ties with communities prior to the

enter formal partnerships, more work in visualizing this local expertise is required. One reason for this imbalance may be the way governance is established in the context of these partnerships. IDDS summits in particular require financial investment, usually not feasible for communities to provide. Therefore, decision making instances tend to fall under organizing teams which may result in biases when designing curricula and choosing projects to work on during summits. Maintaining a close collaboration loop with local communities is essential to ensure avoiding such biases.

## CONCLUSION

Collaboration between entities is fundamental for grassroots organizations to achieve their mission. In this paper we presented two instances of how these collaborations can unfold. Our goal is to provide insight into what advantages and challenges engaging in multilateral partnerships may bring for these initiatives, and most importantly, for grassroots organizations leading these efforts. From our perspective, generating a flexible framework for negotiating and aligning objectives, making sure that principles and philosophies across partners are compatible and acknowledging the limitations some partners may have due to political or organizational factors, are key aspects to the design of these alliances. Having a structure for measuring impact that is shared among all organizations can help understand in detail how these partnerships add value or disrupt the achievement of each partner's mission. Expanding the Theory of Change framework to include input from all organizations is a logical step. Recently, numerous groups working in the field of International Development are using this strategy with promising results (Vogel, 2012). Partnerships also provide a unique opportunity to shift structures and systems by exposing stakeholders to new approaches, methodologies and philosophies of work. The fact that each organization brings to the table networks, knowledge and resources, represents an advantage when trying to capitalize these opportunities. We hope to demonstrate that, if carefully crafted, these kind of partnerships can be



powerful tools for achievement and change across partners objectives and systems.

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## NOTES

[1]Other universities include Colorado State University, Olin College of Engineering, Kwame Nkrumah University of Science and Technology (KNUST) and University of California Davis (UC Davis).

[2]http://unal.edu.co/">http://unal.edu.co/

[3]http://www.univalle.edu.co/">http://www.univalle. edu.co/

[4]Departamento Administrativo de Gestión del Medio Ambiente (DAGMA) – http://www.cali.gov.co/dagma

[5]Estación Arte Viva La Sabana - http://www.escuelataller.org/index.php/estacion-de -la-sabana

[6] "Lo que tiene IDDS es que es como una inyección de energía muy fuerte pero se disipa, verdad? Porque las relaciones se construyen más con el tiempo y es muy poco tiempo para decir como que se construyeron relaciones puntuales" Interview with one of the IDDS 2016 facilitators

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## ABOUT THE AUTHORS

### Pedro Reynolds-Cuellar

Pedro is a Research Assistant at the Personal Robots Group and a Ph.D. student at the Center for Civic Media both at the MIT Media Lab. He is the co-

founder and Creative Director of the Innovation Cent er for Appropriate Technologies and Education, C-Innova, headquartered in Colombia.



He worked for several years at the MIT Design for De velopment Lab, D-Lab, as an Instructor and Researcher in the areas of intersection between low-cost technology, education, and waste management.

### Silvia Buitrago Guzmán

Film and television producer (Universidad Nacional

de Colombia) and Master in Communication (Pontificia Universidad Javeriana). She is currently doing PhD studies in Social and Human Sciences (Pontificia Universidad Javeriana). Her research project is about practices of appropriation of digital technologies by grassroots c ommunities in Colombia.