

TEACHING CASE

# Balancing the Link: Link4 and the Community of Santa Catarina Palopó, Guatemala

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equitable world

# Acknowledgments

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## Authors

This case was written by MIT D-Lab students Cayanne Chachati (Harvard College '20), and Ghada Amer (Harvard College '20) as an extension of their January 2018 field work in Santa Catarina, Guatemala for the D-Lab: Development course.

## About MIT D-Lab Teaching Cases

This case was developed as part of the MIT D-Lab Case Writing Initiative, managed by Laura Budzyna and Melissa Mangino. The goal of this initiative is to produce classroom teaching cases that provide students and practitioners with the opportunity to explore the messy, real-world challenges of design and development work. To accomplish this, the initiative engages student case writers to deeply investigate and communicate a MIT D-Lab field partner's dilemma.

MIT D-Lab Teaching Cases are developed solely for the purpose of class discussion and are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective practices.

## Acknowledgments

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## Introduction

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In the summer of 2017, Oscar Quan and Omar Crespo met at their office at the Universidad del Valle in Guatemala (UVG) to discuss their plan of action. As professors at UVG, they had both just finished teaching the spring installment of their “Design for Development” course through the university’s engineering department. Oscar and Omar had tried to design a course that would give students an opportunity to work with community members in the town of Santa Catarina Palopó near Lake Atitlán, co-designing low-cost technologies that would address local challenges. Through regular trips from Guatemala City to Santa Catarina, their goal had been to have students engage with community members at different stages of the design process, creating opportunities for them to design technologies for and with the people of Santa Catarina, while leaving the community members with the confidence and tools to continue to design for themselves. Instead, the students visited the community only twice: once during the first few weeks of class and once to return with a final product. Oscar and Omar realized that their goal of co-design had not been achieved.

In light of this disappointment, Oscar and Omar were determined to redesign the course in a manner that would provide “open space [to] create ideas together.”<sup>1</sup> To do this, they had to reflect on what — and why — things went wrong. They had limited resources: both money and time were in short supply. As a result, they felt they “were not able to do more” and were forced to “focus on the students and UVG instead of the community.”<sup>2</sup> With no prospects in sight for a significant increase in these resources, Omar and Oscar had to get creative. They would need to investigate new ways to achieve their goal of co-design and overcome the barrier of limited financial and logistical resources. At their office in UVG, they began to brainstorm: how can we actually create opportunities for students and the community to engage in participatory design methods?

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## Economic Context

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Omar and Oscar recognized that the problem they faced was exacerbated by the existing economic conditions in Guatemala. As the largest economy in Central America, Guatemala had witnessed significant economic growth in recent years. Following the end of the civil war in 1996, the country managed to recover and achieve economic stability as a result of major macroeconomic reforms. As of 2016, the Guatemalan GDP stood at \$131.7 billion in Purchasing Power Parity with a projected growth rate of 3.4% in 2017.<sup>3</sup>

However, this economic growth did not yield significant improvements in the quality of life in Guatemala. Rates of income inequality and political corruption increased while rates of extreme poverty, malnutrition and maternal-child mortality remained high. In 2016, Guatemala ranked 125th

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1 Interview with Omar Crespo, January 2018.

2 Interview with Omar Crespo, January 2018.

3 The World Bank in Guatemala

on the Human Development Index.<sup>4</sup> At that time, GDP per capita in Guatemala was approximately USD 7,900 — approximately half the average of the Caribbean and Latin America. Over 50 percent of the population lived below the national poverty line, and 23 percent lived in extreme poverty (below USD 1.90 a day). This situation was worse among indigenous groups, comprising 40 percent of the overall population, for whom poverty levels reached 79 percent.<sup>5</sup> Additionally, Guatemala had the largest levels of income inequality in the region.<sup>6</sup> Overall, these indicators illustrate the lack of progress Guatemala has made in improving the welfare of its population.

In Guatemala, economic growth had not translated into equitable economic development for all segments of society. Indigenous communities saw high rates of unemployment, income inequality and poverty. Despite the fact that most development efforts targeted indigenous populations, they remained the most vulnerable segment of the population. Development and policy groups had grown increasingly aware of this reality and began focusing on creating more inclusive development efforts that actively engaged rural indigenous populations as a part of the solution. Link4 hoped to be a catalyst of this change.

## Link4

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Omar and Oscar wanted to find ways to more effectively engage indigenous groups in Guatemala's development. Together, and in collaboration with other entrepreneurs, they founded Link4, a “design company that fosters local innovation and development through product design, capacity building and cross-learning experiences across the corporate, international development, and educational sectors.”

Link4 was founded on the notion that participatory design is essential for successful development and that the most successful projects occur at the intersection of relationships among different stakeholders. Co-design is a development approach that consists of the involvement of all stakeholders in every stage of the design process and entails designing in collaboration with the end users. Using Link4 as a platform, Omar and Oscar hoped to forge a relationship between the UVG students and the community members in Santa Catarina.

Link4 chose to focus their efforts on Santa Catarina Palopó, one of the 19 municipalities that comprise the Western Department of Sololá Guatemala. Home to 5,000 indigenous inhabitants and surrounding the lake of Atitlán, this community was led by women. The women of Santa Catarina had assembled into six organizations, each comprised of 200 members, to discuss and implement different strategies for improving their town's well-being. The organizations' leaders served as intermediaries, relaying information from the government to the community, and vice versa. While men were not involved due to their employment in neighboring cities, the organizations sought to be as representative as possible.

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4 Human Development Report 2016

5 The World Factbook: Guatemala

6 Human Development Report 2016

It did not take long for visitors to discover who these leaders were. Lidia Florentina Cumes Cumez, the president of one of the organizations, was always found standing outside the office of Pintando Santa Catarina. Pintando Santa Catarina was an internationally funded project whose goal was to paint the community's houses using culturally inspired designs. Having recognized Lidia's leadership abilities, the founders of the project hired Lidia as the community director for the initiative. Described by Omar as a "visionary" and a "superstar," Lidia became a role model for the women of Santa Catarina. To the left of Lidia's office, Rosa Nimacachí was usually found standing on the porch of the local coffee shop – Café Tuk. In addition to running her family business and leading a women's organization, Rosa managed the café. Finally, María Gómez Sahon, a local wood chopper and seller, would be seen either bustling around the central plaza with her newly-chopped bundle of wood, directing an organization of women or working on a project that aimed to improve the living conditions of children in the community.

Omar and Oscar were introduced to Rosa, Lidia, and Maria through the owner of Café Tuk, and over time they began to forge a strong relationship with the women. This relationship was the most crucial factor that enabled them to continue working in Santa Catarina.

To promote their mission in Santa Catarina, Link4 organized and executed the Hogares Sostenibles International Development Design Summit (IDDS), a 17-day co-design summit in 2017 that brought together 52 participants to design solutions for sustainable living in the sectors of water and sanitation, waste management, energy, and cooking. Through IDDS, Link4 encouraged members of rural communities, academic professionals, entrepreneurs, and community leaders from Guatemala to prototype and co-design solutions. This summit initially proved successful in inspiring innovative solutions and empowering community members to improve their own conditions and expand their creativity. However, the success of the summit was short-lived. A few months later, most of the prototypes had been abandoned. The materials that had been used were unavailable, and community members lacked a sense of ownership to further pursue the projects.

In face of these challenges, Omar and Oscar decided to use their classroom as a way to revive and continue the co-design process. They knew that they needed to challenge any pre-conceived notions students held about potential community partners. They believed it was only through interpersonal relations with stakeholders that they would "drop any misconceptions ... [and realize] that it's not just a stereotype that you're talking to, but a family."<sup>7</sup>

Finding ways to tackle such misconceptions had broader implications than just creating a meaningful course at UVG. As co-founders of Link4, Oscar and Omar had dedicated themselves to enabling co-creation and co-development among people from diverse backgrounds. Link4 wanted to ensure that people did not feel like "subjects of study" but rather "participants in the process."<sup>8</sup> This could only be achieved through a genuine participatory process that involved a reciprocal relationship between community members and outsiders. Moving forward, Omar and Oscar had to figure out how to balance the relationship and create a co-design process.

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7 Interview with Omar Crespo, January 2018

8 Interview with Oscar Quan, January 2018

## The Problem

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Omar and Oscar recognized that the challenge they faced with their group of students was not an isolated incident in Link4's work. In many past instances, they had seen communities treated solely as sources from which outsiders could extract information. They came to the realization that they, too, had experienced this imbalance, and perhaps even perpetuated it. Oscar and Omar came to acknowledge that they may have unwittingly contributed to a deeply pervasive issue that they had tried so hard to avoid: relationships between community members and students or development workers tend to be one-sided, often bordering on exploitative. In an effort to mitigate this, Oscar and Omar began by identifying key sources and results of the disparities in such relationships:

### 1. Insufficient communication with community members

Due to a lack of time and money, Oscar and Omar's students were limited to two three-hour visits. Community members viewed the students as "tourists," as they seemed to only gain a superficial understanding of the community.<sup>9</sup> In one instance, Omar and Oscar had asked María to arrange an activity resembling a scavenger hunt in which the students tried the different tasks community members engaged in on a daily basis, such as washing clothes in the lake and chopping wood. To Rosa and other community members, the reasons for the students' visit remained unclear: were they actually there to learn how to chop wood? If so, why were they asking so many questions about waste disposal that seemed irrelevant to what they were doing? It was clear that insufficient communication had given community members reasons to question the intentions of the students' visits. Oscar and Omar knew that they had to find ways to improve the communication with the community.

### 2. Lack of engagement with community members

Since visits were limited in time, community members felt neglected and excluded from the design process. Lidia noticed that there was no collaboration between the community and the students. As a result, the relationship became one-sided, and noticeably so. Students conducted interviews to collect information and returned months later to present their work. Rosa, María, Lidia, and the rest of the community were left wondering what had happened in between. Continuous cycles of students "taking and receiving" from locals without giving "anything in return" left the people of Santa Catarina disheartened.<sup>10</sup> Families no longer wanted to participate in the students' interviews. With the community beginning to turn away from supporting student work, what could Omar and Oscar do to balance the relationship and engage all parties involved?

### 3. Misaligned expectations of community members

The lack of communication and engagement with community members gave rise to false expectations. Rosa met frequently with other locals who expressed disappointment at not receiving any material compensation for engaging with the students. Rosa, Maria, and Lidia were aware that a strong aid mentality existed in the town: the people of Santa Catarina were accustomed to receiving material benefits from politicians, development workers, and others in return for their partic-

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9 Interview with María Gómez Sahón, January 2018

10 Interview with Rosa Nimacachí, January 2018

ipation. After being involved in IDDS, Rosa, Maria, and Lidia discovered that they could benefit personally and intellectually from their participation in such projects. They wanted to show their community that they too could reap the same benefits. However, the lack of communication and engagement between the students and community members did not help the women with that task. Instead, community members grew increasingly skeptical — why were the students actually here? With some members expecting money, others expecting gifts, and others completely unaware of the work that was being done, Link4 was faced with a gross misalignment of expectations. Oscar and Omar knew that they had to address such expectations immediately.

Having identified the sources of the distrust that had prevented them from achieving their goal, Oscar and Omar knew that they had to pave a path forward.

## Future Directions

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Confronted with such a challenging situation, Omar and Oscar began considering various areas of change that might address the existing impediments to success.

### Engaging community leaders

Since Omar and Oscar had formed successful relationships with influential community leaders, they began considering the possibility of engaging a wider range of community leaders that could assist Lidia, Maria, and Rosa in their efforts. These leaders could broaden participation of other women in development projects by reaching out to the different social organizations, running and coordinating meetings, and spreading information regarding the progress and possibility of involvement in ongoing projects. This possibility had several advantages. Concentrating the responsibilities in such a way would instill a sense of empowerment and ownership among the women, allowing for the implementation of more sustainable projects. The unique structure of the women's organizations would also allow Omar and Oscar to work with members that were representative of the larger community.

However, this model also had drawbacks. Omar and Oscar wanted to be conscientious of inciting trouble within the communities. Rosa and Lidia had been victims of recurring hostility from the community due to their leadership positions. Despite all the effort they put in, Rosa had witnessed firsthand the fact that “some people see others participating in different meetings or activities, and criticize them.”<sup>11</sup> The community members erroneously assumed that Rosa was incentivized by monetary benefits (this was not the case) and saw her as selfish. While Maria, Lidia, and Rosa did not mind this level of responsibility, the structure was alienating many women.

In addition to these misconceptions, Lidia had recently brought another challenge to Omar's attention. She had come to realize that community members were finding it difficult to comprehend and appreciate the projects and were thus unmotivated to participate.

### Creating a representative board

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11 Interview with Rosa Nimacachí, January 2018

A second possibility was the creation of a board that would comprise different leaders and serve as an intermediary between community members and other organizations. Omar and Oscar believed there were many advantages to having a board. A board would mitigate many of the problems that the community leaders were facing. By distributing the responsibility among many women, leaders such as Rosa and Lidia would no longer be targets of hostility. The redistribution would also incentivize members to be involved in the decision making process and would make it “more transparent, more open to everyone.”<sup>12</sup>

In the midst of debating the role of community leaders, Omar and Oscar received an urgent phone call from Maria. She had just attended a meeting with other community members, and she informed Omar and Oscar that the women had decided not to create the board for the time being. The leaders felt that having a board would be challenging because the municipality would not offer its assistance. The town's mayor had refused to lend any support because it did not benefit him politically. Lidia also believed that apart from the challenges of organizing and disseminating information, it would be difficult to choose the board's members. Many women were either not a part of the organizations or did not attend meetings regularly, making it difficult to obtain a consensus on the representatives. Lidia feared that women who were not a part of the organizations would be at a disadvantage and would not be fairly represented.

On the other hand, Maria was also hesitant to disregard the possibility of a board. She believed that a board would legitimize the social organizations and potentially encourage the municipality to grant them benefits.

Omar and Oscar were once again faced with a dilemma. While there were clear challenges and public opposition to having a board, they both believed that “if the board was there, then the projects would have gone differently and [they] would have managed expectations more clearly.”<sup>13</sup>

### **Bringing community members to the city**

Confronted with these considerations, Omar and Oscar decided to consult Link4's third co-founder, Majo. Majo had a unique take on the situation. Instead of worrying about the logistics of transporting so many students, why not bring community members to the city? This would prove beneficial to both the students who signed up for the course in hopes of gaining exposure and to the community members who would be empowered to teach others about their culture. Oscar realized that this would “change the way people see a teacher in the city ... you are bringing the knowledge and the context in a person to the city through the way they dress and the way they speak.” With this idea, Omar and Oscar turned to the community leaders for advice. While Lidia embraced this opportunity, she still agreed with Rosa that there were many logistical barriers. The community members had families and jobs; they could not afford to be away from the community for days at a time. Guatemala City was a three-hour drive from the community, requiring resources for both transportation and lodging. Would Omar and Oscar be able to design a flexible curriculum to accommodate varying schedules?

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12 Interview with Oscar Quan, January 2018

13 Interview with Oscar Quan, January 2018



## Conclusion

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With these new insights, Omar and Oscar did not know what path to take. Could creating a representative board adequately address community expectations in the future? Could a board that is fully representative of all interests be formed in the first place? Should they continue to identify and collaborate with community leaders despite the local backlash they faced? Or instead, should they focus on reversing the structure by bringing community members to the city? How could indigenous communities be brought to the forefront of sustainable development work through reciprocal and non-exploitative relationships? With all these questions and no definite answers in sight, Omar and Oscar sat down in their office at UVG, with a Gallo Cerveza (a typical Guatemalan beer) in hand, mapping their future as professors, designers, and Link4 founders. Could they balance the link once and for all?

## Works Cited

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“Human Development Report 2016.” Human Development Report, 25 Mar. 2018, doi: 10.18356/b6186701-en.

“The World Bank In Guatemala.” Country Overview, World Bank Group, 24 March. 2018, w w w . worlbank.org/en/country/guatemala/overview#2.

“The World Factbook: Guatemala.” Central Intelligence Agency, Central Intelligence Agency, 24 March 2018, www.cia.gov/library/publications/the-world-factbook/geos/gt.html.

Interview with Omar Crespo, January 2018

Interview with Oscar Quan, January 2018

Interview with Rosa Nimacachí, January 2018

Interview with María Gómez Sahón, January 2018

Interview with Lidia Florentina Cumes Cumez, January 2018