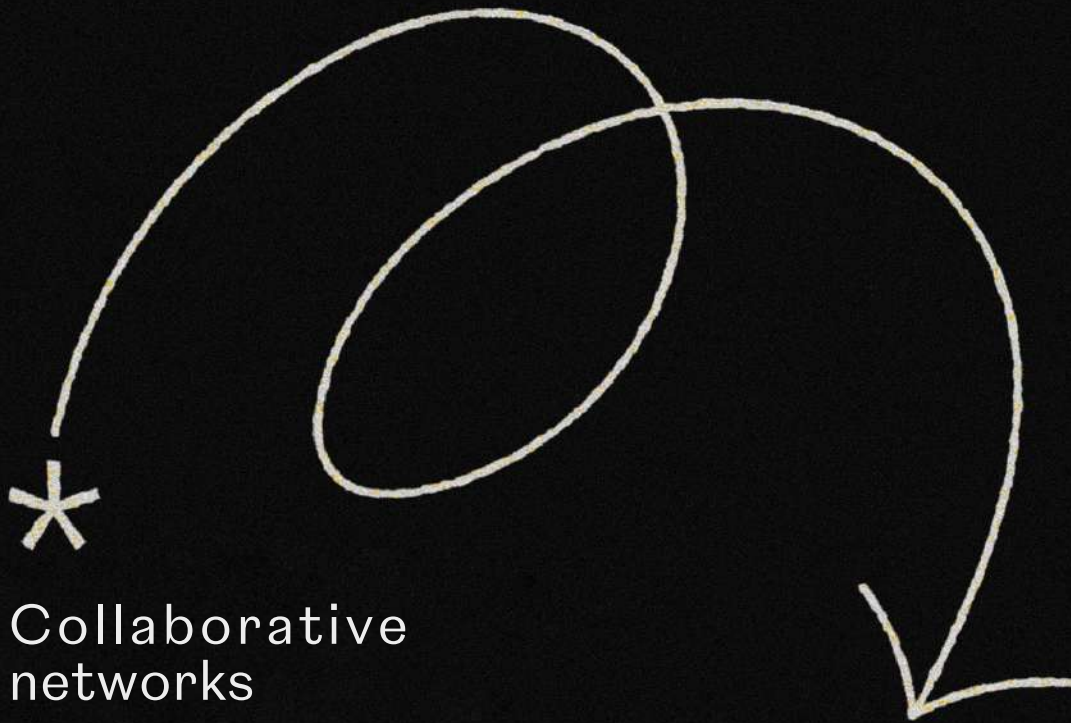


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GRADUATE INSTITUTE  
OF INTERNATIONAL AND  
DEVELOPMENT STUDIES

**Juntanza.**  
Hilando redes colaborativas

Submission to:  
The Geneva Challenge 2022, 9th Edition



Collaborative  
networks

# Juntanza.



### Juntanza\*



**Juntanza:** for centuries, people of Latin America have had practices of collaboration and self-management to improve their living conditions. In Colombia, the word Juntanza is the representation of the ways in which our people have faced the multiple forms of poverty and have gained spaces of social, political and institutional agency, strategies of resistance to confront the crisis and pursue a dignified life. Therefore, the expression Juntanza defines the proposal of this project.



# Collaborative networks.

## Abstract

In Colombia, a country with ecosystemic variety, enough territory for wide food production and a strong sense of community organization, hunger is still one of the biggest problems that affect early childhood, as a consequence of poverty, as well as the cause of irreparable damage to the country's human and socioeconomic development.

That is why Juntanza seeks to fight against malnutrition in children from ages 0 to 5 in the city of Medellín, through a collaborative network made up by 5 parties: Academia, NGOs, local food producers, care providers (caretakers) and centers for early childhood attention. The initiative promotes the generation of knowledge of proper food environments, which are contextualized through a "Geovisor" or map, and also strengthens vulnerable communities and empowers them, through a forum in which people can share their knowledge. Just as well, the app encourages the fair trade of local products in a marketplace and it also promotes solidarity with donations gathered through an integrated virtual bank. Finally, with the possibility of scheduling counseling with specialists in attention to early childhood, Juntanza tends to the priorities and needs of children.

This app promotes the strengthening of community bonds by integrating collective efforts from different areas of society, with the aim of decreasing child malnutrition and also, favoring optimal conditions for cognitive development. Without a doubt, Juntanza contributes to the reduction of poverty by looking to facilitate access to healthy eating, democratize and communicate knowledge in a horizontal manner, pay special attention by prioritizing basic food needs and, collectively generate information on the living situation of vulnerable populations, allowing for informed decision making that is oriented towards the creation of public policies.

### **Keywords:**

Child malnutrition,  
collaborative network,  
data spatialization, fair  
trade, early childhood.

## Biography- Team



### Sebastián Aguirre Orozco

I am a professional in education, with emphasis on Social Sciences; I am currently studying a Masters in Socio Spatial Studies at the University of Antioquia (Colombia). I work as a teacher at an international school. I have won scholarships to study in Brazil and Germany and I've participated in social and educational projects, both at national and international levels. I've been a speaker at different academic events in Latin America on education and pedagogical research, geography, and didactics of Social Sciences. I am also co-founder of "Reto9" (Challenge 9), a youth formation program, focused on the development of skills for active citizenship, in which we also promote the creation of new social action initiatives.



### Natalia Matute Aguirre

I am a political scientist from the University of Antioquia (Colombia); and I'm currently studying a Masters in Socio Spatial Studies at the same University. My academic experience has been linked to the internships done by me for the past 8 years, which have directly related to social management in the framework of building new infrastructure projects. This exercise has allowed me to take theoretical knowledge into the field, and vice versa. During this time period, I have attended different academic scenarios on both national and international levels, in which I have been able to participate as assistant, speaker and coordinator of knowledge tables, providing input on topics related to early childhood, education and development models in Latin American contexts.



### Edwin Alberto Múnera Ortega

I am an architect from the National University of Colombia, class of 2018. I'm currently studying a Masters in Socio Spatial Studies at the University of Antioquia. Throughout my undergraduate degree, I developed an emphasis on History and Theory of Architecture. I have special interest in contextual architecture design and research, analysis and conservation of patrimony, housing and rural habitats. I did my undergraduate internship through Prácticas de Excelencia (Internships of Excellence) from the Governorate of Antioquia in the town of Ituango, working on matters such as the improvement of rural habitats in post-civil war times. I'm interested in projects where the location is widely understood as a design premise, generating discussions and questions in topics such as: territory, landscape, society and local development. I have been a speaker at an international event on local patrimony, and a member of the Spatial Studies Seminar of the National University. I like working with communities and I have a special taste for geographic and geocultural matters, as well as urban and regional planning.



### Simón Palacio Zapata

I am an anthropologist from the University of Antioquia (Colombia). I am currently studying a Masters in Socio Spatial Studies in the same university. I did an online academic exchange with Universidad Autónoma Metro-

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### María Alejandra Salazar Botero

I am a Sociologist graduated from the University of Antioquia, and I'm undergoing a Masters in Socio Spatial Studies at the same university. I have been accompanying farming communities in different parts of the country for several years, focused on labor and activism, which has allowed me to have different experiences in the countryside in other places in the world, such as Central America and Norway, with organizations such as La Vía Campesina and Latin American Coordinators of Countryside Organizations. Other interests of mine are gender and intersectionality affectations to communities by extraction projects and the armed conflict.



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## List of abbreviations

Name	Abbreviation
• Colombian Food Bank Association	• ABACO
• Non-Government Organization	• NGO
• National Statistic Administrative Department	• DANE
• National Planning Department	• DPN
• Multidimensional Poverty Index	• MPI
• Non-Profit Organization	• ESAL
• Sustainable Development Goals	• SDG
• Colombian Institute for the Evaluation of Education	• ICFES
• Oxford Poverty and Human Development Initiative	• OPHI

## Preface

Once we found out about the announcement of The Geneva Challenge 2022 and its intention of covering the subject of poverty, we as a team reflected on the matter, starting from the different ways in which we have lived and/or witnessed it: the life experiences of people; the very little access and low permanence in the school system for children who live in the more secluded parts of the country; the increase in unemployment, especially after the sanitary emergency generated by COVID-19 began. There has also been a rise in environmental disasters, caused by the climate crisis that the planet is undergoing and, which have affected groups of the population which, due to being vulnerable, have a low response capacity. The previous, as well as others, are ways in which poverty is manifest in our social context and that we have witnessed.

During the conversations we had, we found however, that education and hunger are two elements that were transversal to our opinions and life experiences, which is why focusing on the relationship between them and poverty pointed us towards the current proposal. For this, we saw the need to delve into the contexts of poverty that are replicated or reproduced from hunger. We found that -as detailed in the following sections- that these have particular incidence in children from ages 0 to 5, given that in the long term it affects their ability to acquire the necessary competences to properly perform in school and work contexts, propitiating the reproduction of poverty circles.

For the construction of this project we started by acknowledging the globality, depth and complexity of hunger in the Colombian reality and, in the same sense, the limitations that we as a group have to have a determining effect on this problem. However, as citizens, professionals and students, we have responsibility in our society, which causes us to reflect and build strategies conducive to constant betterment. Our action ultimately means a contribution against the very thick entanglement that are poverty and hunger in our country.

The project we devised aims to have children from between 0 and 5 years of age that live below the poverty line in Medellín have better food conditions, which we understand as “those physical, economic, political and sociocultural characteristics that interact among one another and, determine opportunities and conditions related to the consumption of food, food choices and, therefore, the nutritional state of people” (Varela and Méndez, 2021, p. 145). This is achieved through the creation of a mobile app that is used as a means to connect different people who make up the collaborative network. We expect that this app can contribute to the improvement of both the mental and physical development processes of children between the ages of 0 to 5, who are the ones on which the burden of the reproduction of poverty falls and therefore are, a portion of the population

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(Varela and Méndez, 2021, p. 145).

→10 that requires better conditions for its development and incorporation into different areas of society, citizen participation and employment.

This document is made of the following items: in the first place, there is the relation between the specific needs that our proposal tends to, with emphasis in the affectation caused by malnutrition in children between 0 and 5 years of age. Subsequently, those who are part of the collaborative network are described. Later, the development of the mobile app is detailed; that is, the operational functions that are linked to it and the direct relation with each of the parts involved. Further on, and keeping in mind that launching this proposal requires considering financial aspects, the means of sustenance are explained, as well as its costs.

On the other hand, the results and the scope that are expected with the materialization of the app and its operation are outlined and, in the same sense, the foreseen challenges are also outlined, associating them to the management measurements that lead to overcoming said challenges. Later, the way of making this proposal replicable and scale it in other contexts and levels is explained, as well as the way in which Juntanza can contribute to the creation of public policy.

Finally, the conclusions are given, as well as the bibliographic references that support what is stated and outlined throughout the document.



## Poverty

<p>↘ Monetary poverty</p>	<p>↘ Multidimensional Poverty</p> <hr/> <p><b>5 dimensions of poverty</b></p> <ol style="list-style-type: none"> <li>1 Home educational conditions</li> <li>2 Childhood and youth conditions</li> <li>3 Saud</li> <li>4 Emploment</li> <li>5 Access to public utilities and housing conditions</li> </ol> <hr/> <p>Children between 0 and 5 years of age (early childhood) who, due to their multidimensional poverty condition, are at risk of suffering from hunger and its effects.</p>
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Chart 1  
Source: Self-made, based on the National Planning Department (2012)

verty have in children and teenagers, we concluded that is is necessary to create a proposal that contributes to the reduction of hunger in children from 0 to 5 years of age in Medellín, Colombia; thus helping establish the conditions that facilitate the nutrition required during early childhood (see chart 1).

One of the great problems that exist currently in the world, especially in countries with high and medium levels of poverty, is malnutrition in children from 0 to 5 years of age. This situation has been raised by the local governments and the problem has been contextualized by different institutions on continental and global levels, which translates into great challenges in terms of public policy and accompaniment processes in early childhood, that aim to generate comprehensive solutions in a world where greater actions, directed to the care and access to the basic human right to food are desperately needed.

“Malnutrition” has been brought up as a fundamental explanatory category of poverty and complex contexts for children. It is understood as a “socially originated disease and the ultimate expression of the food safety and nutritional situation of a population” (Ministry of Health, 2016). This situation is, at the same time, expressed

**According to the research group from the Colombian Food Bank Association (ABACO) 5 million people that suffered from chronic malnutrition during their early childhood, and suffer from its aftermath, have lower IQs and poorer due to hunger**

through an acute deterioration in the bodily composition and a systematic alteration of organic functions.

The problem of malnutrition in early childhood in Colombia and other countries in Latin America is a structural one, a deficit maintained in time, which has increased since the Covid-19 pandemic and the inflation economic phenomena.

According to the research group from the Colombian Food Bank Association (ABACO) 5 million people that suffered from chronic malnutrition during their early childhood, and suffer from its aftermath, have lower IQs and poorer due to hunger (Revista Semana, 2022b, par. 1)

In Colombia, there are approximately 560.00 children under 5 that are suffering from chronic malnutrition and 15.600 that suffer from severe chronic malnutrition; the latter being deathly (Hernández & Vargas, 2020). Although this all depends on the access that children have to optimal, healthy and balanced food, there are other circumstances that are also connected and require that nutrition in children be thought of in more comprehensive terms, considering social determining social variables. According to the research made by Hernández and Vargas (2020), the problem of child malnutrition is a matter of public health, not only in Colombia, but in other parts of the world as well. It is because of this that its causes are, in most cases, previsible; that is, they can be tended to by different government strategies and public policies.

A report made by the Defensoría del Pueblo (Advocacy for the people) (2021), after a study on the state of the right to nutrition and food of children in Colombia, talks about some structural causes:

- **Food availability:** This has to do with two aspects. The first one is the amount of food produced in a country and whether this food is enough to cover the needs of the country’s population. Despite the fact that Colombia has enough territory to have an adequate supply of food, said food does not make it, in most cases, to children with nutrition deficiencies. Added to this, is the fact that numbers of food waste in the country is quite high, being that “in Colombia there is a national supply of 28.5 million tons of food, of which 9.76 million tons are wasted (34% of the national production) (Defensoría del Pueblo, 2021)”.

- **Access to food:** In Colombia, the economic variables, the very same levels of poverty and high unemployment make access to food limited.

- **Food consumption:** This has to do with the quality and quantity of food eaten by children in their first phase of growth and development.

- **Biological exploitation:** References nutritional and living habits, which are directly related to access to proper nutrition, matters such as coverage from public utilities, water sanitation for human consumption and proper nutritional habits. Currently, with the su-

## Description of the context and assessment of needs

Thinking of strategies to contribute to the decrease of poverty led us, first, to inquiry about its definition. According to the National Statistic Administration Department (DANE), in Colombia, there are two official and complementary indicators for its measurement. First of all, monetary poverty, which measures the percentage of the population that gets a lower monthly income than the minimum established income required to cover their basic needs; second, multidimensional poverty, which is calculated with the Multidimensional Poverty Index (MPI), and which measures the households that suffer deprivation in 5 basic well being dimensions: household education conditions, childhood and youth conditions, health, employment, access to home public utilities and living conditions (National PLanning Department, 2012).

Based on this, we reviewed in which of these dimensions we considered it viable, as well as pertinent to intervene in. Due to the incidence that conditions of vulnerability and reproduction of po-

pply and offer of processed foods, decisions made on optimal food become more complex.

Additionally, in several studies (Alcaraz, et al., 2006; López-Sáleme, et al., 2011), it is mentioned that the children that exhibit a deficit in their nutrition during their first years of life, suffer from problems associated with growth, physical and mental development, which can mean problems in their adult years when being competitive within the current employment system. This situation generates an insertion in poverty dynamics and an inability to get out of them.

Taking all of this into account, when poverty is not taken care of through comprehensive social programs, it can be repeated and inherited from generation to generation. Breaking the chain of inequality and impoverishment is a crucial matter and a constant question in the mind of academics, governments of different countries and institutions that work toward better living conditions for people.

Based on the previous context and outline of concrete needs, we have proposed a digital app for mobile devices in which it is possible to establish collaborative networks in which different parties converge with others in the same territory, or can also become involved in pushing forward strategies to reduce hunger in children and contribute to their mental and physical development.

We opted for a digital model after considering that through this means, the possibilities of third parties that we consider can add to the collaborative network can be expanded, which are: caretakers, attention centers for early childhood, food producers, NGOs and academic institutions. Also, this type of tools allows for replicability in different contexts and scales (rural, urban, local, regional and national), given that access to internet and smartphones is not as complex or limited, and has rather been understood as means to reach better access possibilities in more equal and equitable terms.

Thus, the decision of promoting said type of tool was reached understanding that the percentage of active internet users in Colombia is of 69,1% and, that this trend is rising, as shown by the fact that between 2020 and 2021 there was an increase of 4%, that is, over 1'300.000 new users and, between January 2021 and 2022, there was an increase of 2,2% in the country (we are social & Hootsuite, 2022). Also, according to this report, 94,8% of internet users in Colombia go online through mobile devices, and one of their main reasons to go online is to get information on healthcare, being Colombia one of the countries with the highest numbers that indicate looking up information regarding health problems online (we are social & Hootsuite, 2022). All this data supports the idea that a virtual platform enables a bigger number of users.

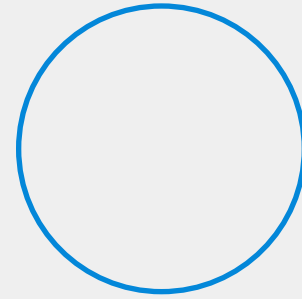




# Parties involved and roles

## Children:

As it has already been established, this proposal has as direct beneficiaries, children in ages from 0 to 5 years old that live in vulnerable conditions in the city of Medellín, where in 2019, the number of children in these conditions was calculated at 102.954, out of 176.282 children in the city (Medellín Cómo Vamos, 2020), that is, roughly 58%. Considering however, that a mobile app with the characteristics described cannot be operated by children between 0 and 5 years of age, the caretakers are linked so as to make effective use of the app and, therefore, benefit the children.

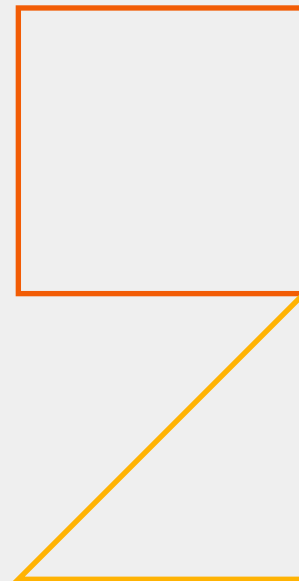


## Caretaker:

The use of the app is directed towards the caretakers, who we understand as anybody who takes on the responsibility of taking care of children. On the platform, the caretaker has the option of directly purchasing food from a farmer, getting lower and more fair prices, as well as food of high nutritional value. Also, at times where there is availability, the caretaker will receive donations for the children under their supervision or themselves.

Additionally, the caretaker shares their experiences with other people registered on the platform, thus generating a collaboration and solidarity scenario where success, as well as mistakes and learning experiences in nutritional strategies can be shared.

Finally, caretakers access a virtual nutritional consulting room where they expose their inquiries and get to know, guided by professionals, proper eating habits for the children under their supervision.



## NGOs:

Non-Governmental Organizations, to the extent that they are involved with different social projects, are a party that adds to the platform. In Colombian legislation, NGOs are identified under the figure of Non-Profit Organizations (ESAL), which are defined as those organizations that have within their objectives, achieving social benefit. In Colombia, 104 of these organizations, which have adding to the fulfilling of the Sustainable Development Goal (SDG) No. 1<sup>1</sup> assisted, in 2019, 3'544.801 people. Just as well, in that same year, 61 organi-



zations that contribute to the SDG No. 2<sup>2</sup>, assisted 466.148 people (National Statistic Administration Department, 2021).

Because of the previous, NGOs' participation becomes relevant in the sense that, through the mobile App, the different work trajectories of these entities can be focused, achieving joint action, directed towards people who are the center of this proposal, for the improvement of their nutritional environment.

### Participation of NGOs is possible from 3 different angles:

1. The purchase and donation of food: through the App, an NGO can purchase food from the food producers registered on the platform and donate them to the virtual food bank managed on the platform itself; in this way, the labor of the food producers is encouraged with a direct purchase and add to consolidating the food bank at the same time.
2. Supporting the generation of knowledge: As one of the objectives of the App is to propitiate the generation a social appropriation of knowledge, NGOs focused on assisting early childhood can, through the App, participate with their experts in virtual forums available in the App, as well as in teaching training workshops that are given (in person) at the care centers and schools.
3. Direct attention to the population through virtual nutritional counseling: The NGOs registered on the platform, and through their experts in nutrition, dietetics and related areas, can support people who need assistance in matters of the mentioned areas.

## Food producers:

It is not possible to project food supply programs without considering those who produce said food, for they are also part of the food supply chain. Because of this, this proposal involves people who, in a sustainable way and with low processing levels, produce food that provide high nutritional components. This is important if we take into account that the public policies in our region do not know of the persistence of unsustainable ways of food production (University of Antioquia, 2019).

Just as well, this proposal subscribes to a line of reduction of big intermediaries that have incidence in the commercialization of food, and this is fundamental to the balance of the prices and for the producers to get a fair price for their products and labor. In order to achieve this, the app allows the producers of food to offer the food they produce directly. Also, food producers can donate to the virtual food bank.

1 Overcoming poverty.

2 Zero hunger (Hambre cero).

On the other hand, by conceiving a collaborative strategy for the generation of knowledge, this app promotes the participation of food producers in the virtual forums and trainings that take place in the centers for attention to early childhood, with the aim of having them share their experience and knowledge on the food they produce, how they are produced, as well as of supporting any possible self-management (DIY) initiative based on house gardens/farms in the houses of the participating population.

**Academia:**

As one of the objectives of the App is to generate knowledge that adds to the making of accurate decisions when formulating food programs, the app involves academic institutions as follows:

1. The platform allows for students and teachers to link research projects that use the data generated by the app as a source, so that these projects can be useful to the study of the situation in which the target population lives, the causes for said conditions and possible long-term solution strategies. Also, professionals from the institutions can participate in the virtual forums and give training workshops in the centers for the attention of early childhood.
2. People registered in academic institutions can provide virtual nutritional advisory, so that the caretakers who might need them get personalized attention on food habits and how these could be improved. The professional internship for students in their final college semesters, and that are majoring in areas related to the app's purpose is also a possibility for supporting this part of the program.

**Centers for the attention of early childhood:**

One of the places where children spend large part of their time, are those centers destined to taking care of the children, which is why they are included in this proposal. Involving these centers as active parties is important because they are places that allow for the caretakers to come together, where training workshops are taught and, that facilitate spreading information about the platform as a useful tool in its labor of looking after the proper consumption of food by children.

The purchase of products through the platform is possible thanks to these centers, and they are also the places that receive the food donated and is to be distributed within the institution.



## App development

Based on the context described previously, the app seeks to favor connectivity among the parties involved, and aims to reduce children malnutrition, as well as to generate the proper conditions for optimal cognitive development in children, incentivize fair trade and promote the generation of knowledge about the food-education-health relationship.

With the purpose of making things more accessible, the App has a voice recognition system, which translates what is said out loud into written form. At the same time, it includes an immersive reader; that is, a reading assistant. Both functions are transversal and are available in all the services. This is with the purpose of having a barrier-free App design.

Five types of parties can be registered in the App (see image 1), under one of these roles:

- Caretaker
- Academia (Academic Institutions)
- Food producer
- NGO
- Centers for the attention of early childhood

There are two permanent functions for all parties, and they are visible on the Toolbar:

**Geovisor or map:** one of the App's central elements is the spatial representation of information, for all the data that is recorded into it (i.e: parties, events and context information, etc.) are geo-referenced on a map supported from OpenStreet-Map (see image 3). Also, with predetermined layers that can be activated, one can see the areas of Medellín with the highest concentration of children population under 5 years of age, based on based on the DANE (2018); the schools with low performance scores in state tests, based on IC-FES (2021); and the marginal areas according to the data from the Multidimensional Poverty Index, taken from DANE (2022), the DNP (2011) and the OPHI (2011). When overlapping this information in layers, along with the record that each party creates, constantly updated information is consolidated, meaning that data is generated through collaboration and the information is not only limited to institutional sources, but there is a joint effort from all the parties involved that are and interact in the territory.

**Chat:** it is available for everybody; through it, text or audio messages can be exchanged with the App's managers in order to solve technical issues,

as well as to clear doubts about how the platform and program work. This is also the suggestion box, where people can leave their suggestions, requests, claims or congratulations.

Also, there are differentiated functions according to the involved party's role, in order to make navigation more practical:

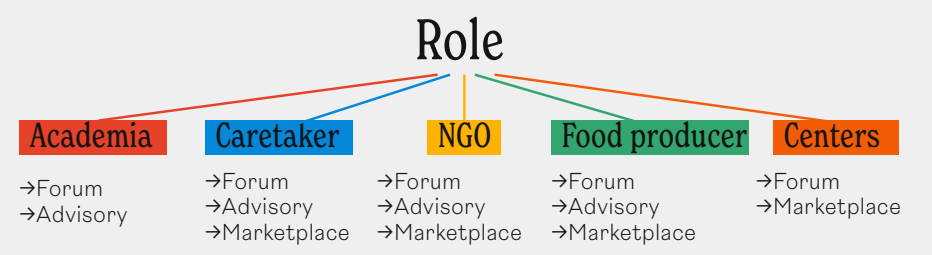


Image 1



Image 2

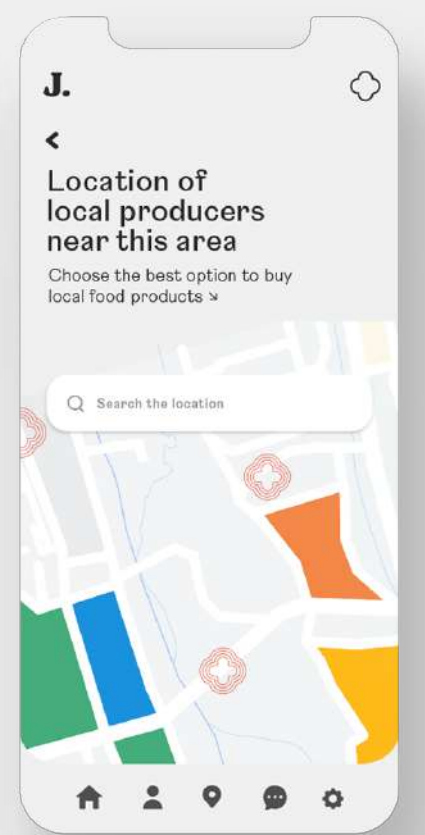


Image 3

After getting done with signing up and choosing their role, the user can select which of the options shown they are going to interact with (see image 2). The options are the following:

## Forum

(See image 4): it is conceived in order to promote the generation and exchange of knowledge, both theoretical, as well as empiric. In this sense, any of the people participating, with any given role, has access and can contribute with the theme contents that are available. Also, the user has the option of initiating new discussions by topic of interest; i.e.: healthy dieting, urban crops, agro-economy techniques, socioecology, solidary economies, children stimulation, strengthening the dimensions of childhood development, etc. The forum has the option of creating and participating in in-person events in the centers for the attention to early childhood, which appear marked on the map and the activity schedule; this helps identify the area where said events are taking place.

## Virtual advisory

(See image 5): it's aimed towards attention to children, through parties involved, such as academia and NGOs, which tend to the requests and inquiries made by the centers for the attention to early childhood and the caretakers, with regards to their questions on nutrition and children's health. For the consultation/advisory, there is a calendar where people can schedule them,

according to the availability that is provided by the interns and professionals that join the initiative from the NGOs and academic institutions. If the Centers for attention to the early childhood or caretakers wish to schedule an appointment, they must create a record of the nutritional profile of the children, based on a preset form. It is suggested to fill the form daily, with the aim of having the professional team follow up each case continuously.

Thanks to this, a record of the diet and food habits of the children is created, and in turn, this will provide valuable information that can be used to promote the generation of public policies and make decisions regarding the needs that the child population has over time, as well as those from care takers and childcare centers. Additionally, by having the data be geo-referenced, the map will show an alert signal visible to the people in Academia and NGOs, indicating the areas and childcare centers where there are children with nutritional problems that require priority attention.



Image 4



Image 5

## Marketplace

(See image 6): e-commerce offers advantages in commercial relations; therefore, having a Marketplace available guarantees:

Direct contact between the producer and the buyer; information is exchanged in real time on the availability, qualities and costs of each product. This also promotes local markets, with no intermediaries that could cause prices to increase.

Through its multimedia format, this function integrates image, text and audio recognition, which allows for better access and easier user interaction; for example, producers can submit their products, whether by name of image, for with the image recognition integrated into the Marketplace, related options will appear, that the food producer will choose afterwards.

Here, food producers offer their products, and caretakers and childhood attention centers can purchase them (see the cost/expense proposal ahead in the item called "Financial proposal"). The app suggests a value to the producer, based on the price consolidation for that said product, according to the area's market analysis.

Just as well, there is an option called "Virtual bank", where food producers and NGOs can make donations, both money, as well as specific products (Details on how donations operate are provided in "Financial proposal"). All who make donations, food producers and buyers are located in the map, which allows to identify distances, types of products offered and consumed in different areas and the type of commercial or solidarity exchange that is made.

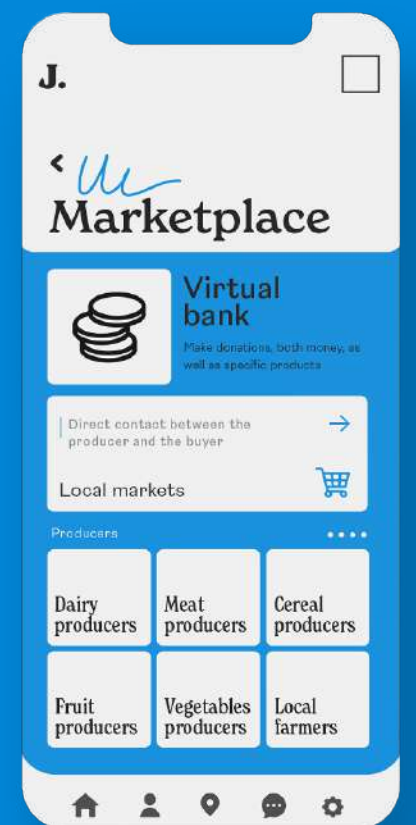


Image 6

# Support and financing

## Commercial model

The purchases made in the Marketplace are made through the electronic payment system called PSE, which is a very popular platform in Colombia with a growth of 41,5% with respect to 2021 and has participation of over 7.500 companies (Revista Semana, 2022a). The money from the transaction is deposited in the bank account registered on behalf of the platform, from which the corresponding money is then transferred to the producer and, at the same time, the shipping of the product is managed with a merchandise delivery company.

All commercial activity is done digitally, taking advantage of the high use the Colombian population makes of the banking system, given that in 2021, it was calculated that 9 out of 10 Colombians use banking services (Infobae, 2022).

## Cost of the project

The platform has two sources of financing. The first one is through the sales generated in the Marketplace, where 10% of each transaction is destined to the sustenance of the App. This percentage is divided like so: 5% is paid by the food producer and 5% by the buyer.

As a second source, the platform can take money donations for the app's expenses and costs from NGOs. Donors can decide whether their contribution goes to the maintenance of the platform and App, or any institution or caretaker in particular, referenced on the map or for the donation not to be destined to any specific location. In this case, the donations will be managed by the App's managers, who will then proceed to supply the donations to the institutions and caretakers, according to the follow-up done to the children's profiles (explained in the "Virtual advisory" section).

Derived from integrating with the payment platform PSE, we have to keep in mind that PSE charges a commission for its use on each transaction (approx. 3,5% + COP\$800), as well as the initial inscription in electronic commerce.

Additionally, the platform has other costs, all of which are described below:

1. Software development.
2. Work teams (**see chart 2**) ↘

a) Platform management:

*Chart 1*  
Description of the platform's work management team. Self-made.

b) Project development:

**Coordinator:**  
Lead the project and look after the completion of objectives.

**Function booster:**  
Visit institutions, reach out to and engage NGOs and universities.



Technical part

**Staff functions**

- Problem solving
- Tech support to users

**Cost of maintenance**

- Operations license
- Domains to be used

- Attention to chat

- Taxes

Operational part

- Training exercises and in-person events

- Logistic expenses

- Donation management
- Virtual bank
- Management and purchase and sales of products
- Updating the calendar

- Logistic expenses

## Expected results and scope

The launch of this App has been a challenge for the work team. To think about it has also meant, to understand what is its actual scope, keeping in mind that the problem of malnutrition and poverty are both very broad issues and have different sides that need to be addressed. We present here the results and scope that demand the actions required by its actions:

**Contribute** to the reduction of malnutrition in children from ages 0 to 5, understanding that malnutrition negatively affects their optimal physical and mental development.

**Enable**, by creating a collaborative network, access to better quality food, while promoting organic and sustainable production processes, for vulnerable children from ages 0 to 5.

**To engage** academia and NGOs with accompanying children's growth and development processes by providing access to relevant information to the caretakers in charge of said children, enabling nutritional attention and preventing the children from consuming highly processed foods.

**Add** to the implementation of alternatives for direct commercialization of food, which benefits the food producers and challenges outsourcing processes that skip prices up and don't benefit the producer.

**Consolidate** a Geovisor that helps improve territory self-management and contributes to the generation of data and numbers on children's poverty and malnutrition, providing tools for the organization and management of projects on a community level.

**Spatialize** the parties involved, contact points and the network itself, being it an innovative tool for the visualization of children malnutrition, spreading information and mapping of those involved; thus providing numbers that are of interest for local and government institutions for the creation of comprehensive attention programs aimed towards reducing the Multidimensional Poverty Index. The App can be improved with investments from international cooperation and government entities.

## Recommendation to public policy

This proposal obtains short-term, mid-term and long-term review. In the short term, it adds to the increasing food safety for children. In the mid term, the platform will have generated consolidated collaboration spaces, as well as between those involved that seek the betterment of food environments. Finally, in the long term, the platform will have allowed for children who have lived in conditions of poverty, to have the physical and mental skills to break the circle of poverty.

Additionally, the platform is also a useful tool in the generation and creation of public policy, where it is possible to erase the stigma of welfare, a characteristic that has been instilled in the programs carried out by the Department of Antioquia, Colombia (Universidad de Antioquia, 2019). The platform allows thus, on one hand, to promote collaborative scenarios between those involved that boost the management capacity in populations affected by poverty, favoring a greater autonomy in terms of making decisions regarding food. On the other hand, the data generated by the platform are used for early diagnostics, needed for the

**The platform allows to promote collaborative scenarios between those involved that boost the management capacity in populations affected by poverty, favoring a greater autonomy in terms of making decisions regarding food.**

creation of public policy, which in turn, are complemented by the research studies carried out using the data from the App as a source.

Participation from NGOs is very important to achieve this, given that the NGO Federation of Antioquia, which is the guild of over 90 social entities, provides the experience acquired through work done in the platform, in different public interest scenarios on the matter, such as: the Public Municipal Policy Oversight Commission for the protection of and attention to childhood and youth of Medellín; the Technical Inter Institutional Committee for the for the creation, implementation and evaluation of public protection policy and comprehensive care to childhood and youth of Medellín; Childhood Policies Council; the Technical committee for the follow-up and updating of childhood public policy in Medellín, and the committee for families. All of these are groups from which assertive programs that face the problem of children malnutrition are generated.

The previous is replicable, in turn, for academic institutions; they are able to participate from their social outreach projection, in different public-policy-creating scenarios, where the experiences gathered from the platform add valuable information for the creation of new programs.

# Challenges

**Chart 3 :** Implementation challenges and mitigation plan. Self-made.

## Challenges

- Transparency in the registration of information by the caretakers and childcare centers.
- Protection of the minors' identities.
- Permanence and participation from parties involved.
- Proper management of monetary donations.
- Failures in e-commerce and payment platform.
- Food transportation, especially food that requires refrigeration.
- People with internet connectivity issues or who don't know how to operate smartphones.

## Mitigation plan

- Information is confirmed during virtual and in-person meetings and advisories.
- The project is covered by the Data Protection Act, or Law 1581 of 2012 of Colombia.
- Active Staff that maintains communication with and follows up with parties involved.
- Via the chat, access to how the money is managed can be requested. Internal transparency policy with all public resources.
- Technical Staff performs constant follow-ups and maintenance.
- Selecting an ideal food transport company after review.
- Mapping of community leaders that act as links between the parties involved and the community.





## Replicability and scalability

From the inception of this proposal, one of the challenges we faced was thinking of an alternative that is replicable in other contexts, different from Medellín. In order to solve this, we present the possibilities of the App being replicated and adapted to different territories and their specific characteristics, and at different scales.

Virtual access to the platform makes it easy to adapt on different levels, meaning, in smaller contexts such as neighborhoods, districts or cities, but also in regions, departments/provinces/states and even nationwide.

Also, pushing for a collaborative network on a virtual platform promotes replicability, for different parts involved, at different levels can become engaged if necessary; these parts involved can be engaged at local- municipal, regional and even national level. All of this will allow, for example, for caretakers from a minimal territorial unit (neighborhood), to be benefited by the actions of a national-level NGO, or regional-level food producers. The previous, will also promote greater exposure for those involved as well as the possibilities for attention to children.

Additionally, despite the platform having defined parties that are involved, it is possible that, depending on each context's requirements and specificity, other actors that might not be fully represented by the roles defined in the App be added; these additions will however, be considered similar enough to the pre-established roles by the functions they could represent, more than because of the way they have been classified; thus facilitating the platform's replicability options.

# Conclusions

Finally, we consider it pertinent to highlight the following aspects as a manner of conclusion, for they widely gather the relevance of the project presented here

The creation of Juntanza is based in the understanding that it is through community organization and solidarity-based support networks, that context transformation is made possible. It is therefore, a need of evidencing and encourage the abilities of those who involved that live in the territory and of contributing to the creation of organizational, self-management and collaborative processes that can contribute in this situation to the reduction of malnutrition in early childhood, which in turn means contributing to making their (the children's) mental and physical development conditions improve and make breaking the cycle of poverty.

In the same sense, we have found out while developing this proposal, about the importance of identifying, recognizing and articulate the parties involved that converge not just in one territory, but around an issue instead. In this way, the proposal,

besides tending to the necessities of children living in poverty and malnutrition, allows for the generation of knowledge in a collaborative way and at different levels, that can help in the improvement of the overall conditions of the beneficiaries, advances in matters of interest and the making of decisions at a political-administrative level, providing information in the making of planning instruments, such as public policies that are conducive to a higher incidence and longer terms.

Considering the relevance that generation of and access to information have in the creation of strategies currently, we have also considered the need of spatializing the data that is generated from the relations between the parties involved in the network, and through the capture, processing and representation of said data, Juntanza can become articulated with concrete actions on State and community levels.

In addition, the mapping of the obtained data and overlapping of the layers that were previously described as preset can contribute to the compression or enhancing the territorialization of poverty, and thus, allowing to visualize not only the parties involved and the network, but also the challenges and opportunities that occur over time.

Lastly, our proposal helps establishing a fair market by progressively encouraging the elimination of intermediaries between producer and buyer within the collaborative network. This way, producers can commercialize directly with the other participants of the platform, and getting also, a more fair set of prices, in comparison to the regular market. At the same time, buyers will have access to higher quality and fresher food, because of the closer relation with the food producer.

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