



RESEARCH INSTITUTE FOR TECHNOLOGY AND INNOVATION

IPTI

ACTIVITIES REPORT

2019

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ART, SCIENCE, AND TECHNOLOGY TO DEVELOP COMMUNITIES

The Research Institute for Technology and Innovation (IPTI) is a non-profit art, science, and technology institution that seeks to generate innovations capable of promoting human development through the creation of social technologies in the areas of basic education, entrepreneurial education, and basic health in a systemic and evolutionary manner.

IPTI began its first steps in October 2003 in the city of São Paulo. In 2009, the organization decides to transfer its headquarters to Santa Luzia do Itanhvy in the south of Sergipe, one of the municipalities with the lowest Human Development Index (HDI) in Brazil, to work with the local community to generate solutions that are effective in extremely vulnerable contexts and have potential to scale.



MISSION

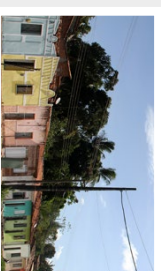
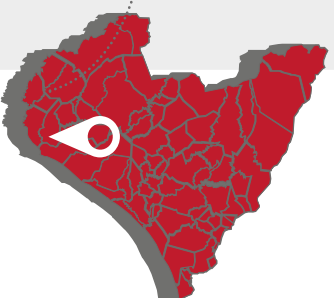
To evoke the transforming role of people, so that they can make a difference in their communities, in Brazil, and in the world

VISION

To be a world reference in social technologies of transformation.

VALUES

- Local grounding for global articulation;
- Commitment to innovation;
- Poetics of difference;
- Visible and invisible dynamic;
- Empathy;
- Confidence, perseverance, and overcoming.



BUT HOW DOES THIS WORK?

IPTI creates strategies, methodologies, and tools to involve the members of the communities in the development of innovative solutions to their own problems. The final product will be called a Social Technology. In the epicenter of these Social Technologies are efficiency, scalability, and sustainability. In other words, we dedicate ourselves exclusively to generate innovative solutions to tackle complex social issues in a more sustainable way – both financially and politically -- so that the beneficiaries are agents of change as well.

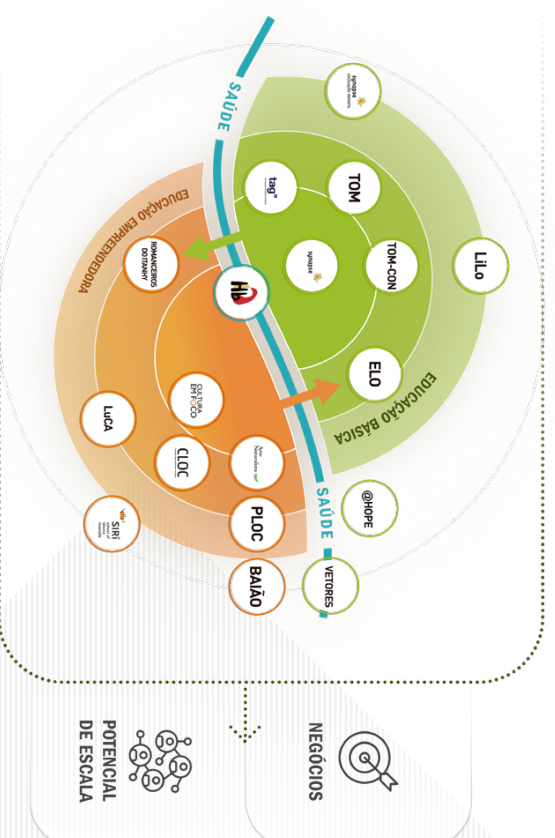
Santa Luzia do Itanhvy is our global incubator of Social Technologies, where we originally conceived, developed, and perfected innovative solutions that may be reapplied in different regions of Brazil and the world.

In these last years, IPTI created eighteen Social Technologies, ten of which are in the phase of scalability and/or sustainability, with reapplications in thirty-three municipalities, in six different states, and has benefitted more than 20,000 people in the last five years.

IPTI'S MODEL OF HUMAN DEVELOPMENT

IPTI believes that the union of Art, Science and Technology, in a joint scope of practice with society, transforms education, stimulates the protagonism of young people, and amplifies the entrepreneurial vision of society, offering a new life opportunity.

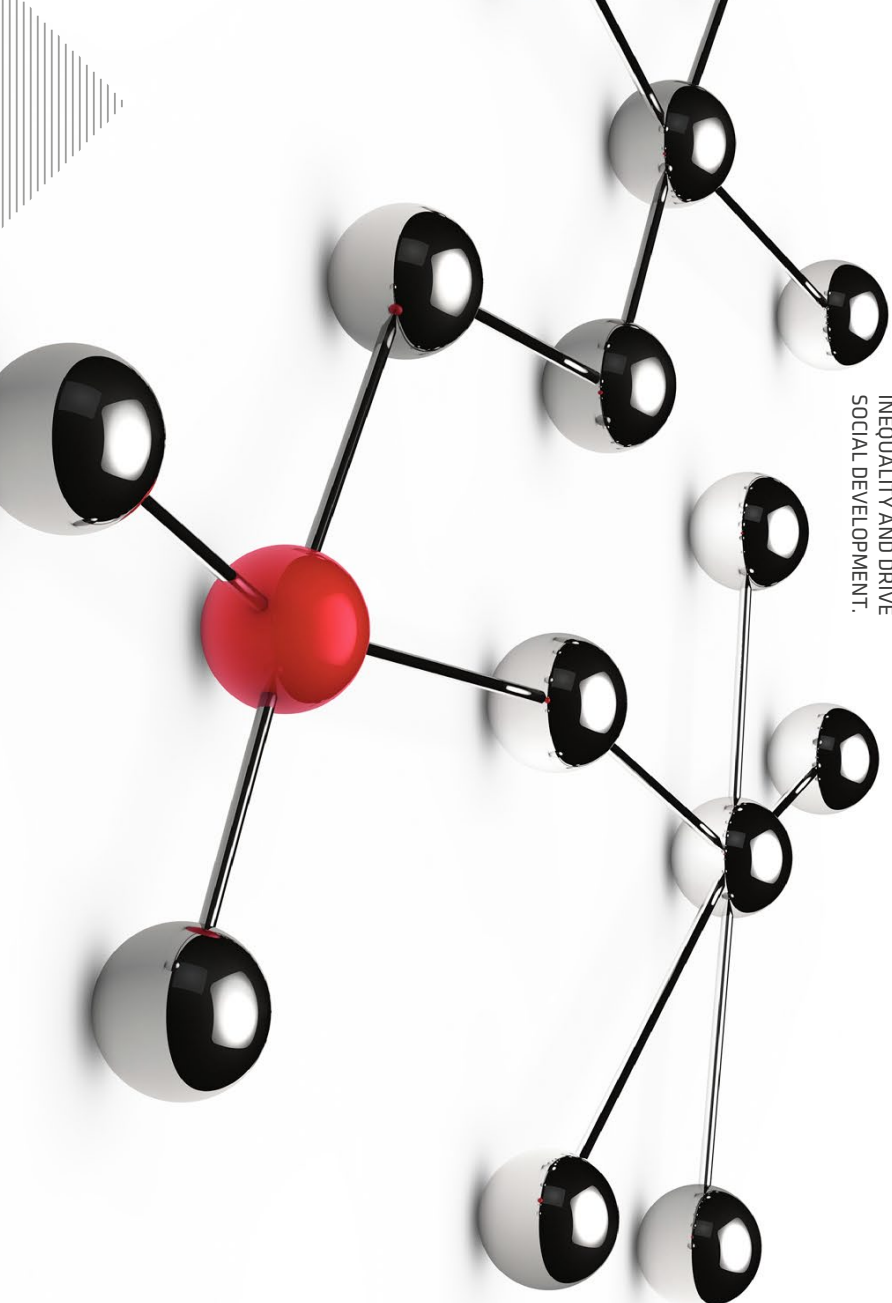
We seek innovative, effective, and scalable solutions that are business-oriented and ensure sustainability.



IPTI

AND THE GOVERNMENT OF SERGIPE

NEW IDEAS TO REDUCE
INEQUALITY AND DRIVE
SOCIAL DEVELOPMENT.



Arquivo pessoal

“ Innovation is a key tool to foster change, contributing to the construction of alternative solutions and to the economic development in various scenarios. With this in mind, the government of Sergipe reaffirms its commitment to initiatives that champion science, technology, and creativity as tools to transform realities and generate social impact.

Because of its goal to face challenges through innovation, the State Bureau of Economic Development, Science, and Technology (SEDETEC) seeks to articulate new and productive social paths, especially in underprivileged parts of Sergipe. It's in this segment that IPTI stands out as a strategic partner and an important agent of mobilization for the state.

From the individual to the community, from the local to the regional, the Social Technologies implemented and perfected by IPTI produce real and noticeable results in the lives of the Sergipian population. It's the faith in IPTI's work that motivates us to believe in cooperation and innovation as propellers of development, driving us to align the economic and social spheres within our government.

JOSÉ AUCUSTO PEREIRA DE CARVALHO

STATE SECRETARY OF ECONOMIC DEVELOPMENT, SCIENCE, AND
TECHNOLOGY



SCAN THIS QR CODE WITH YOUR
SMARTPHONE AND GET ACCESS TO
THE PREVIOUS YEARS REPORTS.



IPTI's Social Technologies

- **SOCIAL TECHNOLOGIES
FOR BASIC EDUCATION**
- **SOCIAL TECHNOLOGIES
FOR HEALTH**
- **SOCIAL
TECHNOLOGIES FOR
ENTREPRENEURIAL
EDUCATION**

IN THE FOLLOWING PAGES,
FOLLOW THE DEVELOPMENT
OF OUR PROJECTS.





synapse

Synapse is a pedagogical methodology that combines neuroscience with the classroom experience of public-school teachers and has as an objective to contribute to the improvement in the education quality of Portuguese and Math in the first three years of elementary school in Brazilian public schools. The Synapse pillars are contextualization and planning based on learning objectives, along with a continuous graduation model where the best teachers in a municipality act as reapplicants in other municipalities, assuming more empathy and efficacy in the process of dissemination of the technique.

The beginning of Synapse's development was from 2010 through 2015, when we generated the first effective and reapplicable version of the social technology, composed of a Pedagogical Notebook and Class Plan, Digital Platform, and playful resources to be used in the classroom (Pedagogical Support Materials – MAP). This whole process was conducted in a participatory manner, involving the IPTI team and a group of teachers from municipal schools in Santa Luzia do Itanhhy.

At the end of 2015, a partnership between IPTI and the Sergipe State Secretary of Education (SEED) allowed for scalability with the reapplication of Synapse to all municipal and state schools in 13 municipalities in the region of Baixo São Francisco, in the north of the state. The effectiveness of this model assured that, in 2018, Synapse counted on the participation of 300 teachers and 6,500 benefited students in more than 110 public schools and, most importantly, that the project had continuity in 2019, even without external support.

In August of 2019, we initiated our first experience reapplying in a municipality in a different state – Baracera, in Maranhão (Project “Legados na Educação do Maranhão”). The project, which lasts 20 months, will graduate teachers, pedagogical coordinators, and school managers in the Basic and Advance modules of the Synapse methodology. The experiment initially involved 60 teachers, five pedagogical coordinators, and twenty-five school managers in fifteen schools, benefiting 884 students.

By the end of December, we had concluded the Basic education module for teachers and Specific education for pedagogical coordinators and school managers. Even with only a few months of reapplication, shifts were noticed in the local pedagogical practice with positive returns for the teaching collective.

Because Synapse is a constantly evolving Social Technology, we took the year as an opportunity to adapt the Pedagogical Notebook to the competence, knowledge, and skills established by the National Common Curricular Base (BNCC).



COMPONENTS OF THE SYNAPSE TECHNOLOGY

- Pedagogical Notebook for teacher support;
- Lesson Plan to support the organization of the teacher's classes with a focus on the Synapse Matrix's pedagogical objectives;
- SynapseEdu – a digital platform with content to support the assessment and learning of students;
- Pedagogical Support Material (MAP) with teaching resources;
- App and Web Portal for teachers to register their lesson plans and activities and share them with the other teachers.

SYNAPSE TEACHER NETWORK (RPS) LAUNCH:

With the support of IPTI, the Synapse Teacher Network (RSP) – an entrepreneurial initiative by literacy teachers that use the Synapse Social Technology to promote quality alphabeticization to all children in the long-term – was created on August 31, 2019.

With the goal of being the main national reference in alphabeticization by 2015, RPS constitutes a body of committed teachers that builds, applies, evaluates, and continuously perfects an innovative methodology that is adequate to the reality of education in Brazil. Currently, the members of RPS act in the public education network of fifteen municipalities in Sergipe and Maranhão.

www.rps.org.br

NUMBER OF PROJECTS UNTIL 2020

- 15 municipalities (13 in the regions of Baixo São Francisco and Santa Luzia do Itanhhy, in Sergipe, and in Baracera, in Maranhão);
- 789 participating teachers (direct beneficiaries);
- 135 schools and 15,780 students (indirect beneficiaries).

PROJECTIONS FOR 2020

- Reapplication to six new municipalities in Sergipe;
- Printing and distribution of the pedagogical notebook aligned with BNCC guidelines;
- Elaboration and application of a tool to evaluate the impact of the Synapse Social Technology;
- Amplification of RPS with a goal of bringing in new teachers from Sergipe and Maranhão;
- Amplification of performance through the creation of Synapse reapplication workshops for teachers already graduated in the methodology.



tag*

Tecnologia de Apoio à Gestão

TAG is a computational system initially developed to help school management, with a special focus on small municipalities that don't already have computerized information management systems.

Developed in a collaborative manner involving administrative staff from Santa Luzia do Itanhv municipal schools, this Social Technology works online and offline, taking into consideration rural areas without internet access, and allows for synchronization via USB Flash Drive and, soon, through the phone. TAG provides more practicality and speed in enrollments, registration of students and teachers, lesson plans, generation of more efficient delivery of documents, organization of reports, and help in managing Bolsa Família, other than being integrated with MEC's Educacenso system. TAG is a complete tool for schools and the only system recognized by the Ministry of Education (MEC) as an Educational Tool in the area of school management.



TAG IN SOCIAL ASSISTANCE

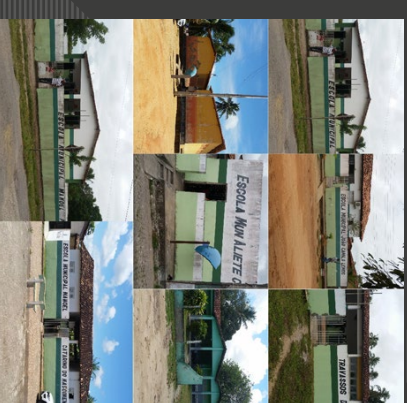
A TAG module developed to aid social assistance at the Social Assistance Reference Center (CRAS), allowing for the management of information of the municipality's referenced families and the services provided daily at CRAS. Development of modules for the computerized management of activities by the Tutelary Council and the Municipal Council for the Rights of Children and Adolescents (CMDCA).

IPTT's plan is to transform TAG into a complete and integrated municipal system for the management of information on education, health, and assistance, with a special focus on monitoring the development of children and adolescents.

In 2019 technical improvements were made to the TAG interface, with improvements to mobile usability, optimized screens, and smoother navigation between functionalities. This necessity was observed and developed to minimize the impact of computer-less schools on the integration with the municipal teaching network. Additionally, the reports issued and the rules for data integration with MEC's Educacenso were updated.

We are in the final stages of implementing an incident management system for schools that require the intervention of Tutelary Councils, in an action that also deepens partnerships with the State Public Ministry, the Court of Justice, and the Secretary of Public Safety.

TAG is a free system (GNU license), that runs on a cloud and is currently present in eighteen municipalities in Sergipe with over 80 thousand students in its database. In 2019 we started our first experiment reapplying it in another state – namely, the Bacabeira municipality in the state of Maranhão.

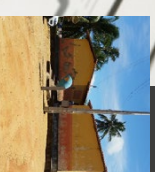


PROJECT NUMBERS

- Present in nineteen municipalities in two Brazilian states;
- 198 schools currently using TAG;
- Over 80,000 students registered in the TAG database.

NEXT CHALLENGES

- Expand the technology to other municipalities in Sergipe and in other Brazilian states;
- Develop new functionalities for social aid and health;
- Use Artificial Intelligence to improve data management and support decision-making;
- Development of an app to synchronize the data from offline schools into the server.



LILO

LANGUAGE AND LOGIC

The Lilo (Language and Logic) project proposes a math curriculum that respects the cognitive development of children, substituting abstract math for contextualization strategies, using language to develop the logic behind math in the first years of primary education.

The pedagogical resources created by Lilo up to 2019 are composed of a Pedagogical Support Kit and a Web Series, which are used in the development of classroom activities.

The Pedagogical Support Kit aims to contextualize math through games and interactive activities, approaching the Synapse Matrix's capacities and engaging in a discussion about the rural reality – all of this using the visual references from the Web Series. This material has been built in a collaborative manner between educators from five pilot schools in Santa Luzia do Itanhý and teachers from the Synapse Teacher Network (RPS). The goal is to use Lilo to integrate all knowledge and resources into the Synapse materials.

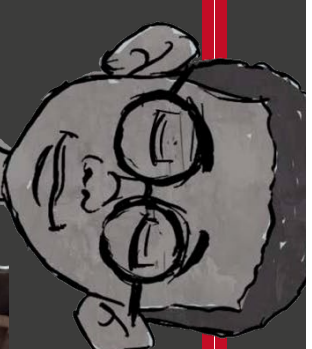
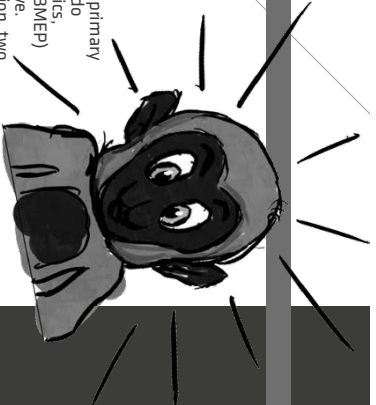


The Web Series, called 1. Pé de Banana Nanica, aims to draw attention to the real use of math in the day-to-day and, thus, stimulate the interest in the subject.

The thirteen episodes from Season 1, available on a YouTube channel, were created and produced exclusively by a group of teenagers and young adults that developed their skills in other IPTI projects, like PLDC, Romances do Itanhý, SRII, and LúCA. This group developed a partnership between different skillsets and had the opportunity to develop an audiovisual product, putting into practice skills like scripting, treatment writing, sound recording, score writing, direction, cinematography, and acting.



In addition to the aspect directly related to teaching and learning maths in primary school, Lilo aims to highlight and expand the possibilities for Santa Luzia do Itanhv's municipal schools' students with a special aptitude for mathematics, offering study workshops for the Brazilian Public School Math Olympics (OBMEP) competition. In its second year, the results of this project have been positive. From a group composed of twenty students from five schools from the region, two qualified to participate in the first phase of OBMEP.



PROJECT NUMBERS

- 1 children's series was created, with the first season available on YouTube at https://www.youtube.com/channel/UCc8_p0w0p4GsmndQ_080q1gw

- 20 students participated in the process of making the Web Series (screenplay, pre-production, production, and post-production);
- Team of 10 RPS teachers participating in the integration of the Synapse pedagogical kit;
- Math study group involving 20 students in the municipality.

NEXT CHALLENGES

- Integrate the pedagogical kit into the Synapse methodology;
- Implement new math study groups with current students of the project as the new teachers, reapplying the Social Technology in their own schools;
- Produce and share the second season of the 1.º Pe de Banana Nanica web series.



synapse

CHILDHOOD EDUCATION

The investment in the education of underprivileged children from birth until the age of five helps to diminish the distortions of learning, reduce the need for special education, increase the probability of healthier lifestyles, decrease the criminality rate, and generally reduce social costs.

Based on this knowledge, in August of 2018, IPTI started the development of an early version of this Social Technology aimed at childhood education. It is aligned with the Synapse methodology and combines non-cognitive knowledge to the experiences of primary school teachers, with the objective of contributing to improvements in childhood education and the formation of a new generation of better-prepared students with a better learning condition for primary school. In this first step, the project involved three rural municipal schools, directly benefitting eleven teachers and 170 elementary school students.

In 2019, the project expanded the number of beneficiaries to six schools, corresponding to 31,58% of the municipal elementary education, 51 teachers (42% of teachers in childhood education), and 480 children (54% of the students in the municipal network), with a focus on the participatory construction of the first resources of the Synapse Childhood Education Social Technology, including the first version of the Class Plan for each age group of early childhood education (three groups), aligned with the National Common Core Curriculum (BNCC) and to the Serapiam Curriculum. Besides that, to aid the teachers in the development of educational and immersive activities with the goal of attracting the direct attention and participation of the children, the Pedagogical Support Materials for Childhood Education (MAPEs) were created.

The class plans are available at:
<https://www.ipti.org.br/app/uploads/2019/12/planos-synapse-ei-vst1.pdf>



TOM-CON

TOM-Con is a Social Technology that seeks to improve the services rendered by the Tutelary Council and by the Municipal Council for the Rights of Children and Adolescents (CMDCA), through the perfecting of management and communication processes, as well as of the integration between the actors that make up the Protection Network, by a computerized system.

TOM-Con involves the mapping of the Councils' communications and management processes and the creation of solutions for the priority concerns. For the Tutelary Council, IPTI created a module linked to TAC that allows the registering and monitoring of complaints by the users and the emission of reports by the Councilors. Besides that, it was designed to allow for the integration with other actors that make up the Protection Network, like the District Attorney's Office, the State Secretary of Public Safety, among others. With this, it is possible to achieve a more efficient Child and Adolescent's Rights Guarantee System (SGD) in the municipalities.

In 2019, the making of the technology prioritized the CMDCA. The developed methodology resulted in the creation of two solutions: a website which allows for better management of the assignments of the Council and the integration with the Tutelary Council database, and a Practical Guide that facilitates the execution of the counselor's assignments, which is set to be concluded in 2020. All of the steps in the process were conducted in a collaborative manner, in partnership with the counselors of Santa Luzia do Itanhhy.

Besides all of these efforts, to facilitate the formation/updating of the members of the Tutelary Council, we initiated the construction of a virtual environment that will make available the explanations of challenging or complex content by specialists as a podcast.

Our goal is to systematize the experiences of TOM-Con to open the door for replications in other Brazilian municipalities, and thus giving the project scalability.

PROJECT NUMBERS

- Involvement of 1 Municipal Council for the Rights of Children and Adolescents and 8 Tutelary Councilors;

NEXT CHALLENGES

- Conclusion of the Practical Guide for the performance of CMDCA members.
- Integration of the CMDCA website into the Tutelary Council system.
- Virtual environment with content as podcasts.

PRÓXIMOS DESAFIOS

- More developed versions of the Class Plans;
- First version of the Pedagogical Notebook;
- Creation of four Pedagogical Support Materials for Childhood Education (MAPEs);
- Strengthening of communication between the family and the school;
- Increase in the number of Santa Luzia do Itanhhy schools served by the project.

@HOPE ART & TECHNOLOGY FOR HEIGHTENED OPPORTUNITIES IN PUBLIC EDUCATION

The @Hope project is a Social Technology proposal to build municipal schools where the environment is suitable for the promotion of the students' human development and where the pedagogical model includes the integration of our Basic Education, Entrepreneurial Education, and Health Social Technologies developed by IPTI. The proposal is that this school be a showcase of IPTI's Social Technologies and that it inspires other schools to follow suit.

The architectural project was developed with the community related to the school (school board, teachers, staff, principal, students, and parents) in Pedra Furada, creating a thorough reference document that can be accessed at <https://www.ipti.org.br/athope/>

SCAN THIS QR CODE WITH YOUR SMARTPHONE
AND GET ACCESS TO THE PAGE.



The project was awarded by the São Paulo department of the Brazilian Institute of Architects (IAB-SP) at the end of 2018 as the best project in the "Institutional Buildings - non-executed construction" category.



SOCIAL TECHNOLOGIES FOR BASIC EDUCATION

WHAT HAS BEEN DONE ALREADY

Through our event in New York, we were able to raise around \$726 thousand Reals in donations, enough resources to build the daycare, childhood educational space, kitchen, cafeteria, multimedia lab, and a classroom. Furthermore, we celebrated a partnership with the Ministry of Science, Technology, and Innovation, thanks to a parliamentary budget amendment by Senator Maria do Carmo for the training of Pedra Furada youth in traditional construction techniques and Social Technologies targeting environmental sustainability (sanitation) and food security (vegetable garden), so that they can develop an entrepreneurial unit and help build the school.

NEXT CHALLENGES

The main challenge is to build the school spaces for which we already have the funds using local labor and to raise the funds to build the remaining parts so that it can be used by students and teachers in 2021.



SUPPORTER

Garcia
Family
foundation

SUPPORTER

CERITY
PARTNERS



Iron-deficiency anemia is the world's biggest nutritional disease. According to data published by the World Health Organization (WHO), it affects 25% of the world's population, with children being one of the most vulnerable demographics, with consequences along the lines of poor motor and mental development.

Hb is a Social Technology to diagnose and treat iron-deficiency anemia in schools. The technology was built in partnership with the Santa Luzia do Itanhy Municipal Secretary of Education and Health between 2010 and 2013, with a success rate of over 80%.

In 2013, Hb won the Banco do Brasil Foundation Social Technology prize and we used the resources to validate the scalability model, with technicians from Santa Luzia do Itanhy acting as replicators in the municipality of Boquim, with a reduction of cases from 24% to 4.8%.

><https://wimeo.com/10377435>

The Hb resources include a device to diagnose the hemoglobin index in the blood, a comic book called "Artery Wars: The Invisible Sabotage" to sensitize the students about healthy eating habits, and a computerized campaign management system, including the health evaluation of students with malnutrition and obesity, all linked to TAC.

PROJECT NUMBERS

- Reduction of the iron-deficiency index in Santa Luzia do Itanhy/SE students from 32% to 6%;
- Reduction of the iron-deficiency index in Boquim/SE students from 25% to 4.8%;
- Reduction of the iron-deficiency index in Santa Luzia do Anixim Borba/AM students from 59% to 3.9%;
- The Anixim (AM) experiment won the 2017 "Mostra Brasil, aqui tem SUS" Notice in the Webdoc Conasems category.

>https://youtu.be/0z_XlnxUYYao

NUMBER OF BENEFICIARIES

- Over 8,000 children.

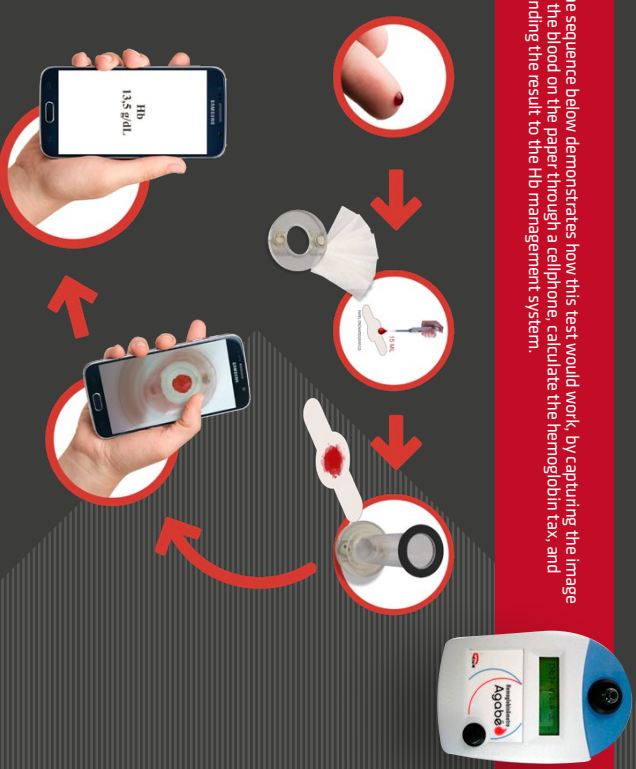


PERFECTING OF HB

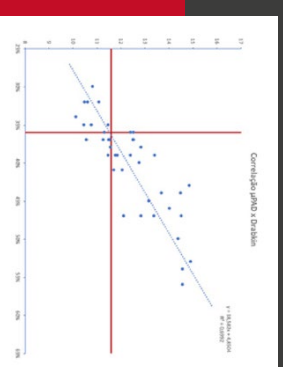
Because of the discontinuance of the production of the equipment used to measure the hemoglobin index in the blood, we started a project to develop a new platform for a quick test based on the µPAD (microfluidic paper-based analytical devices) methodology, in partnership with the São Carlos Chemistry Institute (IASC/USP).



The sequence below demonstrates how this test would work, by capturing the image of the blood on the paper through a cellphone, calculate the hemoglobin tax, and sending the result to the Hb management system.



The proof-of-concept phase was carried out in 2019 with promising results with an average correlation of 83%, compared with the tests carried out with the previous equipment.



NEXT CHALLENGE

The next steps are to improve the test accuracy, aiming to reach a correlation of 95% or more, to develop the test for ferritin (the blood's iron reserve), and to validate these tests to allow for production and mass application, with a goal to implement this testing in Santa Luzia do Itanhy by 2022.



VETORES

VIGILANCE MANAGEMENT SUPPORT TECHNOLOGY

The objective of this Social Technology is to contribute to the control of epidemiological disease-causing vectors, with special focus on the *Aedes Aegypti* – which causes Zika, Chikungunya, and Dengue – through community engagement and mobilization in the monitoring and fight against these vectors.

This technology is based on an app for mobile devices that allows georeferenced registering of vectors and the responses by the community, associating game strategies to stimulate participation. The app also incorporates information related to the development and proliferation conditions of the vectors (i.e. rainfall, temperature, soil type, indexes from previous years, etc.) and predictive models to alert the community and support public officials' decision-making to be more effective or avoid the problem in the first place.

The first step of the process was the planning and drafting of the Engagement and the Municipal Management apps, in partnership between endemic agents in the Santa Luzia do Itanhhy municipality and Citi2, a startup created from the CLOC Social Technology.

In October 2019, with the product already structured, we published the first version of the app on the App Store with the goal of working with local information to monitor and alert public managers, conducting tests for the first validation of the system in four pilot communities in Santa Luzia do Itanhhy.



NEXT CHALLENGES

- Enhancement of Apps for community and endemic agents;
- Construction of the episode The Community Strikes Back, from the Artery Wars comic book;
- Construction of the statistical and probabilistic model for epidemiological monitoring;
- Validate the Social Technology and plan scalability testing for 2021.

Arte Naturalista

The Arte Naturalista project is a Social Technology that identifies and develops local talent in drawing, training future illustrators to be qualified in various illustration techniques (e.g. watercolor, pointillism, graphite, and pastel) with an emphasis in portraying the mangrove ecosystem. The project proposes a new meaning to the mangrove for the local population, which, by turning it into art, shifts the perspectives of teenagers and youth.

Inspired by the local scenery, teenagers and youth from Santa Luzia do Itanhny municipal schools learn to illustrate the fauna and flora of the region, awakening in them the importance of environmental preservation and strengthening the creation of community identity through the appreciation of their lifestyle and knowledge. As the students develop their skills, they also become part of a group of illustrators with the task of reapplying arts teaching in the schools of their own communities.

At the end of each cycle, the group of illustrators should be sufficiently skilled to develop businesses with the principles of a creative economy as its basis, in areas such as fashion, graphic design, product design, among others.

Casa do Cacete is the first startup created from the Arte Naturalista Social Technology.



CASA DO CACETE - CDC

Formed by illustrators trained by the Arte Naturalista project, Casa do Cacete has made important partnerships in Brazil and abroad since 2016.

www.casadocacete.com
 @casadocacete.br
 @casadocacete
 Casa do Cacete



MURALIST PROJECT

The Muralist Project, conceived by Daniel Moraes, visual artist and founder of Criativo Graphique, aimed to expand the knowledge of the Casa do Cacete artists with new large-scale illustration techniques, encourage creative processes with social impact, and open paths for new business partnerships. In addition, the action was focused on awakening the interest of new teenagers and young people from the Santa Luzia do Itanhny region to learn painting techniques offered by the Arte Naturalista project.

Between the months of June and July of 2019, workshops were held, and, from this exchange between the participants and the community, artistic techniques were put into practice that impacted and transformed the local landscape. Through this project, three large murals totaling more than 220m² were produced in the Santa Luzia do Itanhny region.

THE REAPPLICATION OF ARTE NATURALISTA

The potential for the scalability of Arte Naturalista assures the continuity of the formation process and gives an opportunity for the discovery of new talent. This way, the students that stand out in the project share their knowledge in their own communities, acting as illustration teachers in other Santa Luzia do Itanhny municipal schools.

PROJECT NUMBERS

- 1,800 children and teenagers benefited;
- 5 technical training workshops;
- 7 partnerships with businesses.

MURALIST COLLECTION

The launch of the Muralist collection by Casa do Cacete, a product line conceived from the results of the Muralist Project.

For the production of the pieces (T-shirts, backpacks, toiletry bags, and silk scarves), the team prioritized working with suppliers and partners with good social sustainability practices.

The collection was supported by the Lorinvest company, contributing financially and believing that actions like this are transformative and capable of inspiring the next generations of entrepreneurs in the region.



THE PRIVATE APPLE PARTNERSHIP

Launch of the Muralist Collection in The Private Apple store, in New York, in December 2019.

STELLA ARTOIS

Creation and illustration of an exclusive chalice for IPTI US Chamber's annual event in New York.

RED BULL AMAPHIKO

Selection of Genisson Cardoso, Casa do Cacete partner, between 900 applicants to participate in the Red Bull mentorship program, which supports the development of entrepreneurs who propose innovative solutions for social challenges.



ROMANCEIROS DO ITANHY

The Romanceiros do ItanhY began in 2017, inspired in the experience of the First Book Social Project (Projeto Social Primeiro Livro) by Portuguese Language teacher Luis Junqueira, who stimulates the literary and artistic expression in children and teenagers through the production of narratives and the publishing of their own books. Through a selection process, twenty teenagers from Santa Luzia do ItanhY with an interest in literature, received mentorship while developing a deeper comprehension and appreciation for writing, going beyond the orthographic and semantic learning, giving greater focus to the affective and structural processes that involve the construction of a narrative.

Through weekly meetings that explored different languages within literature, music, and audiovisual media, the project resulted in the production of seven books written launched on an autograph night in late 2019.

The launch event was held in Santa Luzia do ItanhY and, among friends and relatives, the authors Tâmara Ramos, Ana Rodrigues, Cintia Santos, Sabrina Santos, Grazielle Teixeira, Suelle Miranda, and Marcos Paulo demonstrated the importance of the Social Technology as an instrument of innovation and transformation for social development.

BOOKS

- "Dois caminhos" (Tâmara Ramos)
- "Anjos do terror" (Ana Rodrigues)
- "O outro lado da poesia" (Cintia Santos)
- "Juntos para sempre" (Grazielle Teixeira)
- "A bruxa assassina" (Marcos Paulo)
- "Vida cruel" (Sabrina Santos)
- "O amanhã é agora" (Suelle Miranda)



PROJECT NUMBERS

- 20 students benefited;
- 7 books written.

GENERAL OBJECTIVES OF THE ROMANCEIROS DO ITANHY

- Offer students a deeper understanding and appreciation of writing;
- Stimulate imagination and creativity;
- Strengthen self-esteem, encouraging the construction and reaffirmation of identity and self-knowledge;
- Provide a safe environment for the exercise of freedom of expression;
- Develop logic and critical skills through reading and classroom debate.

NEXT CHALLENGES

- Increase the number of adolescents participating in the project;
- Develop the dialogue between the PILOC, CLLOC, and LUCA projects, seeking greater focus on the formation of screenwriters with the objective of fostering a creative environment in the audiovisual and games production chain.



“I’m a 10th-grade student in the Comendador Calazans school and being a part of Romaneiros do Itaipu was a great honor and the realization of a dream that until then, I considered impossible. With the release of my own book, I realized I’m able to build everything I’ve wanted. I was able to discover new talents through my writing!”

I was lucky to have been supported by my family, my friends, and the personal incentive by IPTI. The project helped me see the world better, have a new way to act, think, and to evolve as a person. I discovered a new me. Someone who can follow his dreams. I’m very thankful for everything that happened and for IPTI to have changed my life!”

MARCOS PAULO

15 YEARS OLD, PEDRA FURADA VILLAGE, SANTA LUZIA DO ITAIPU/SE

BAIÃO

Created in late 2017, the Baião project aims to preserve traditional regional music through the teaching of the zabumba, the triangle, and the accordion. After the selection process, young people have access to weekly classes, which, in addition to the technical part, seek to explore the musical language to emphasize the importance of preserving our sound memory and discovering the values of our cultural roots through music.

During these two years, we developed methodological and didactic tools based on some conceptual pillars, such as personal motivation, life history, intuitive posture, musical perception. The question of personal motivation arose from the need to reveal what could be behind the desire to learn music through the accordion, the zabumba, and the triangle. Life-history-wise, each person's individuality is born from the intersection of their cultural identity and family relationships; each with a particular relationship with the soundtrack of their own lives, seeking to understand their own cultural roots.

In the pedagogical meetings, the stages of the Social Technology were developed and split into three parts: "The discoveries" (initial concepts, discovering the accordion, panorama of accordion players); "Maos à Obra" (construction of the study habit, applicability, manipulation of sounds and musical concepts, musical creation); "Sharing the Bread" (teaching practice).



In 2019, with the continued teaching and learning of the Baião project, it was already possible to observe the impact on the atmosphere of some people in the Castro community. The students demonstrated a gradual development and increasing skills with musical instruments, in addition to showing that they are able to understand musical concepts, compose, and master musical techniques.



SELECTION AND REAPPLICATION

Two selections were made with twenty applications, and from there, eight students were selected for the accordion and eight for percussion.

Within the scalability proposal of our projects, we generate solutions that can be replicated by adopting a collaborative methodology in all stages of development, with the identification and involvement of local participants.

Because of this and despite being only eleven years old, Virícius Moraes, a student from the first Baião class, displayed proficiency, dedication, discipline, and motivation for a positive performance in music education, therefore becoming the first Baião reapplicators.

PROJECT RESULTS

- Benefitted 16 children and teenagers;
- Presentation of the Pense Grande Biemodley.

NEXT CHALLENGES

- Construction of the Knowledge Booklet;
- Greater integration with the PLOC Imaginary Orchestra for new original productions;
- Development of the group for presentation at national festivals.



CLOC

criatividade- lógica- oportunidade- crescimento

CLOC is a project aimed at structuring a highly qualified team of advanced programming, formed by young talent from public schools, which in turn will enable the insertion of a computer programming course in public schools in a sustainable way generating business in IT that will benefit, mainly, students and their communities.

During the learning process, CLOC students developed their logical thinking and, as they progressed through the stages, learned Scratch, HTML5, and CSS3, and even reached the most advanced level- learning Databank and Javascript. When students reach this level, they are invited to act as coding instructors in the schools of their own villages, assuring the continuity of scale, and creating opportunities for new talent to be discovered.

Within the educational project, in 2019, CLOC included the "Coding Time" methodology as a part of the curriculum even in internet-less schools. Created by Code.org, the initiative shows educators, teenagers, children, or anyone interested in the world of programming and what can be learned about computer science in just one hour in a fun and creative way.

ROBOTICS

Confirming its potential for scalability, CLOC started to reapply the robotics class, allowing the best students to act as instructors in municipal public schools. Thus, it was possible to expand the presence of the project to another 10 villages in Santa Luzia do Itanhhy in 2019.



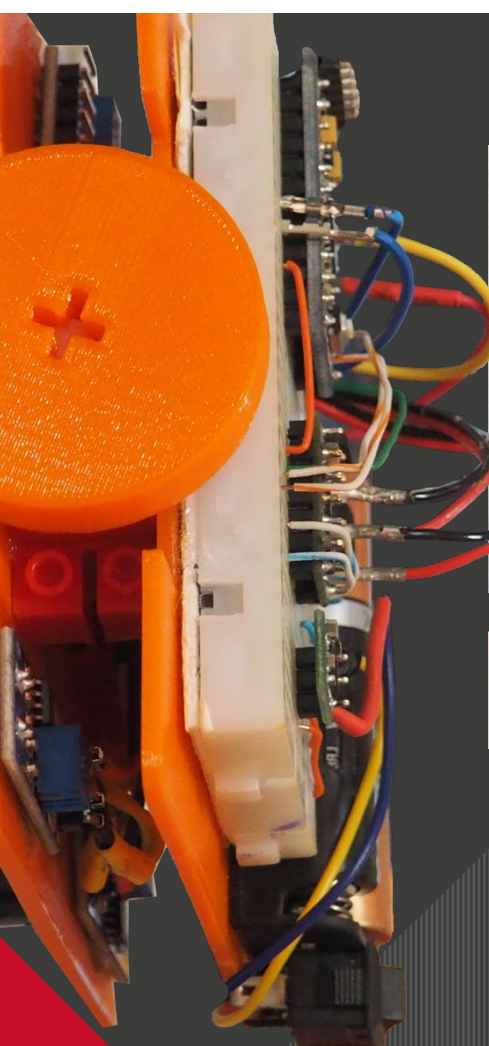
In addition, a new version of the Robotic Kit was developed, consisting of recycled components, 3D printed modules, Arduino electronic platforms, and integrated with the Synapse Social Technology, with the aim of amplifying students' learning capacity in various areas of knowledge, mainly in the teaching of Basic Mathematics.

CTI12

The year of 2019 has been a milestone in CLOC's development. Connected by the knowledge offered by the project, we created CTI12 (Itanhhy's Integrated Information Technology Center), the first computer programming startup in Santa Luzia do Itanhhy. Initially formed by thirteen partners, all students from the first three CLOC classes.

THE MAIN PROJECTS DEVELOPED BY CTI12 IN THIS PERIOD WERE:

- Website development for the Municipal Council for the Rights of Children and Adolescents (CMDCA);
- Development of a community engagement app for the Vêtores Social Technology;
- 2st Hackatiti hackathon.



In 2019, the "Graduation Event" and the "Best Teacher of the Year Award" were included in the CLOC's activities calendar. These activities allow families to get closer to the projects developed by IPTI and get to know the work done in the region. Family participation is essential for adolescents and young people to have a more positive and healthy learning process. During the ceremony, certificates of graduation and completion of the course were given to students of Level 3, and participation certificates were given to students of Levels 1 and 2.



FBB PRIZE 2019

CLOC placed second in the Banco do Brasil Foundation Social Technology Awards 2019 in the National Income Creation category, which had 801 applicants.

E-CIO PRIZE

Prêmio especial "Destaque da Área de TI do Estado de Sergipe", no 12º e-CIO.

SAP NOW BRASIL EVENT 2019

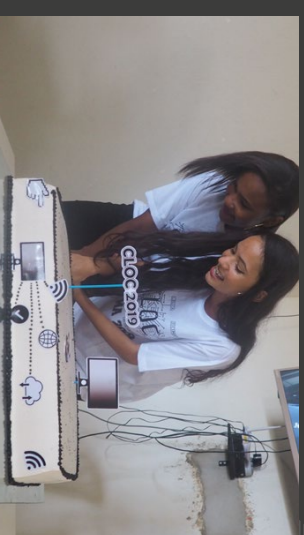
The CLOC project, represented by Vía Tainá, reapplicant of Social Technology and one of the founders of CITI?, participated in SAP NOW Brasil 2019, one of the largest annual SAP technology events worldwide. In the "Social Entrepreneurship and Sustainability" panel, Vía presented the project and demonstrated how technology can be a very important ally in the implementation of sustainable projects and solutions.

CODING HOUR

Participation in the worldwide "Coding Hour" event in December 2019.

PROJECT NUMBERS

- CLOC team formed by 396 programmers, where 15 are already active and 381 are in training;
- 1,196 students benefited
- 10 municipal public schools benefited;
- 3 apps developed;
- 1 robotics kit developed.



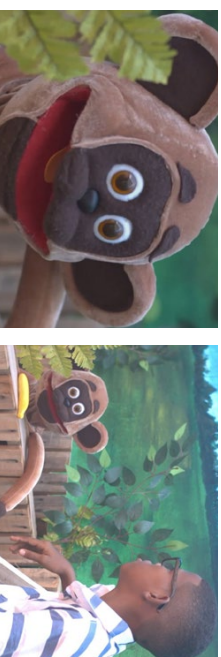
PLOC

PLOC is a Social Technology whose objective is to create opportunities for young people to perceive and explore the local soundscape as a possibility of economic and cultural development.

Since 2017, PLOC has offered workshops in sound capture, editing, production, and composition for teenagers and youth in Santa Luzia do Itanhhy in Sergipe.

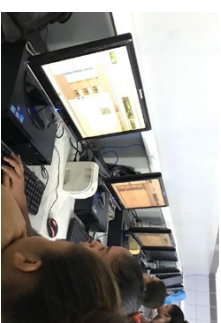
In 2019, PLOC enters the scalability phase with the creation of three new classes, whose teachers were the students from the first phase of the project. Along with IPTI, they built a reapplication methodology aiming to share their experiences and knowledge on sound recording and editing, composition, and musical improvisation with other teenagers.

With the expansion of the project, it was possible to take new steps, and through a partnership with CELSE (Centrais Elétricas de Sergipe), the project crossed borders and experimented with a sound capture workshop model in another municipality in Sergipe, Barra dos Coqueiros.



2019 PROJECT HIGHLIGHTS:

- Two music videos released (Forró em Santa Luzia and Café com Leite);
- Participation in sound capture and soundscape development for the thirteen episodes of the 1 Pe de Banana Nanica web series;
- First year of reapplication in Santa Luzia do Itanhhy, in the Crasto and Rua da Palha villages;
- Participation in the audiovisual workshop with the team from Otiorama Films from São Paulo.



SCALABILITY

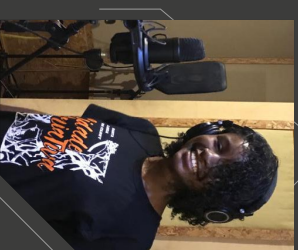
Reapplication of the methodology in Santa Luzia do Itanhhy, Crasto, and Rua da Palha.

PROJECT NUMBERS

- 65 benefited students;
- 2 music videos produced;
- Participation in the production of 13 episodes of the 1 Pe de Banana Nanica web series.

NEXT CHALLENGES

- Start the second stage of reapplying the technology in three villages;
- Record and release a new CD by the PLOC Imaginary Orchestra;
- Create a sound database;
- Strengthen the dialogue with the audiovisual project to create a local production company.



“ I am an 11th grade student at the Colégio Estadual Comendador Calazans in Santa Luzia do Itanhhy, and I had the opportunity to participate in three IPTI projects: Romanteiros do Itanhhy, SIRI, and PLOC.

I got to know IPTI through the Institute's coordinator's visit to my school. In 2016, I was selected for Romanteiros do Itanhhy, the first project I participated in. Because of what I learned in that project, I was able to change my perspective on life, my belief about my future, and the way I perceive the world and myself. The three projects were essential to my knowledge. Thanks to this opportunity, I now know that I have the capacity to get what I want, regardless of what happens, because faith, focus, and willpower will take me wherever I want to be.”

SUELE DE JESUS MIRANDA
18 YEARS OLD, CRASTO VILLAGE

LUCA LIGHTS, CAMERA, ACTION

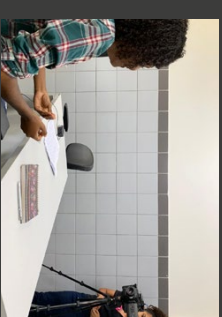
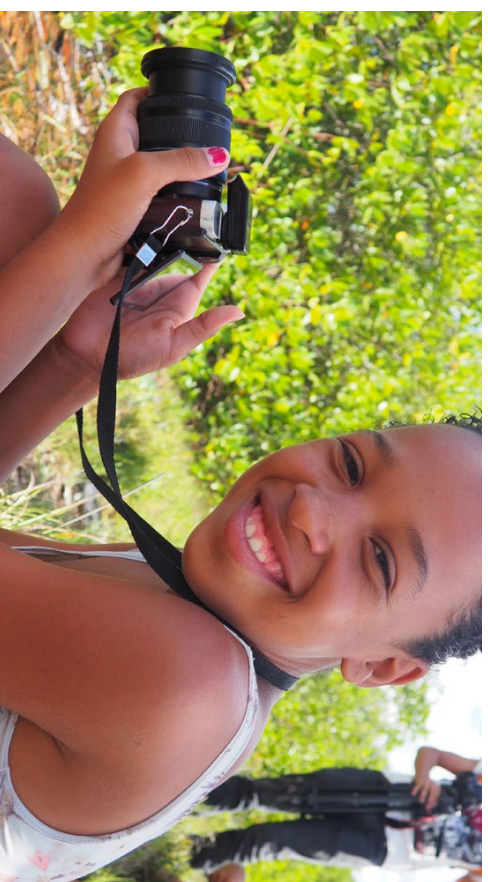
LuCA is a derivation from the Arts with Science Social Technology, whose objective was to capacitate high school students in the production and sharing of educational audiovisual materials.

With a focus on the audiovisual language, LuCA selects and enables teenagers in Santa Luzia do Itanhhy municipal schools. With weekly classes and workshops, the students learned filming techniques with digital cameras and cellphones, as well as how to use recording software, editing techniques, sound capturing, and exporting.

With the project's second activity cycle wrapping up, ten LuCA students were assessed as high-skilled with potential to start the reapplication process. In 2019, the project gained scalability offering Intro to Cinema, Cinematography, Video, Scriptwriting, and Audiovisual Production classes to students in Santa Luzia do Itanhhy municipal schools.

In addition, 2019 was the year to put the acquired skills into practice. The most advanced students formed a working group in partnership with participants from Lilo Social Technology and together created and produced 13 episodes of the 1 Pé de Banana Nanica web series.

This experience was extremely enriching because the work gave the teenagers and youth the opportunity to experience the entire audiovisual production process, including scripting, dramaturgy, cinematography, lighting, costume, and producing. Moreover, through this working group, they were stimulated to promote critical and technical analyses of the work-in-progress using their previous audiovisual language knowledge.

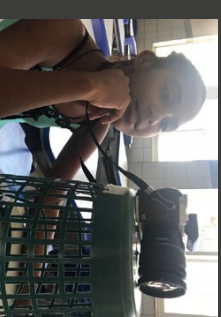


PROJECT NUMBERS

- Directly benefitted 20 teenagers.
- Produced 13 episodes of the 1 Pé de Banana Nanica web series.

NEXT CHALLENGES

- Start the first audiovisual production company of Santa Luzia do Itanhhy.





SIRI

school of idioms riverside

Everyone knows that English is the most widely used language in the world and can be extremely helpful in an increasingly globalized world. With that in mind, in 2018, IPTI started the School of Idioms Riverside (SIRI), an English teaching project that values imagination and interactivity using games and challenges, using the daily lives of teenagers and youth as a reference.

The first class was composed of a selection of students from municipal schools in five villages in Santa Luzia do Itanhv. With the growth in demand for new spots in 2019, SIRI expanded its capacity and offered three classes, one advanced and two beginners.

With the opening of the new classes, the opportunity arose to use the knowledge acquired by the most advanced students and, through the scalability model of our Social Technologies, to offer training so that they could become reapplicators. In this way, the most applied students developed, in partnership with the SIRI coordinator, the first four chapters of the reapplication booklet and acted as instructors for the students of the new classes.

In 2019, the three teenagers in Santa Luzia do Itanhv who had the highest performance in their English classes, got to have experience interacting with fellow teenagers from New York through virtual communication software. The goal of this experience was to evaluate how we could plan a permanent conversation program between teenagers of the two countries, something planned to happen in 2020 as an integral part of the SIRI Social Technology.



PROJECT NUMBERS

- 60 teenagers and youth benefited.

SIRI GOALS

- Expand the possibilities of the development in the performance of global entrepreneurship projects by the youth through learning and mastering English;
- Create a reapplication methodology that allows the best students to act as basic English instructors in the schools in their respective villages;
- Insert English classes in municipal public schools sustainably.

NEXT CHALLENGES

- Finish the first version of the reapplication guide;
- Systematization of the methodology to enable the best students of SIRI to act as instructors of basic English in the schools of their respective villages as of 2020;
- Plan for the possibility of SIRI becoming a language-education social entrepreneurship venture of teenagers and youth in Santa Luzia do Itanhv.



PENSE GRANDE

PenseGrande is a program of the Telefonica Vivo Foundation that aims to create business proposals that use digital technologies. In 2019 the program was implemented in Santa Luzia do Itanhny, training the IPTI team and some young people and adolescents to be further disseminators. Our main interest is in the continued application of the program to students of entrepreneurial education projects, in the perspective that this will help them to elaborate action plans, with the potential to become business plans and new social businesses.

Pense Grande's activities are based on Active Methodologies and Culture Maker, for example. Thus, during the entire learning process, the protagonism of its participants is highlighted through tools such as Ikigai, Empathy Map, Actors Map, Golden Circle and Canvas.

In Santa Luzia do Itanhny, the first contact with the project took place through a set of workshops carried out by the Atados organization, for 20 young people from 14 to 31 years old, during the second half of 2019. Of this group, 4 ideas were created and presented in a pitch, with 2 winning proposals: Aratur (ecological and cultural tourism agency with customized itineraries) and Antidepressant (application to connect psychology professionals and people with depression).

The young people who participated in the training in the Pense Grande methodology, after the end of this stage of the project, became able to carry out its reapplication. That is, with the knowledge acquired, other classes can be led and formed by this team, ensuring the sustainability of the idea, motivating other young people to undertake, in addition to strengthening knowledge about this area through the exchange of experiences.

PROJECT NUMBERS

- 20 young people participating in the training;
- 11 young people trained in the methodology;
- 4 business proposals presented;
- 2 winning projects;
- 1 pitch.

NEXT CHALLENGES

Re-apply the project in 4 villages in Santa Luzia do Itanhny, Sergipe.



FINANCIAL EDUCATION GAMES

Financial education has been considered one of the main skills that must be developed among people. With children and young people, this is no different. Learning from an early age the importance of your money, as well as its proper use, can provide that in the not too distant future, debt avoidance or even frustration for not reaching certain goals due to personal financial organization or monetary limitation.

In the same strategy adopted in the case of Pense Grande, IPTI established a partnership with Bank of America Merrill Lynch (BAML) to reapply a methodology for introducing financial education, based on two board games - Picnic and Good Business - both developed by BAML.

Picnic focuses on consumption decisions, where it is possible along a trail to choose between saving or spending certain values and at the same time obtaining a disadvantage for having committed an infraction or even being rewarded for a positive attitude. Good Business game has as its main element the negotiation, being possible to observe concepts such as interest, entrepreneurship and investments, which makes the products presented to be valued or devalued throughout the game.

The reapplication in Santa Luzia do Itanhny was conducted by the Instituto Brasil Solidario (IBS), and after the training meeting, some of the students reached the necessary requirements to become reapplications, a fact that occurred through the distribution of a kit with the two games for a representative of each village (totaling 4), thus creating small nuclei. The reapplications took place in an experimental format based on their own use among the village's youth, through presentation to teachers and application with students from local schools.

PROJECT NUMBERS

- 18 young people participating in the training;
- 4 groups for experimental reapplication;
- 4 villages reached;
- 30 people reached with reapplication.

NEXT CHALLENGES

Include Financial Education Games into other social technologies developed by IPTI.



CULTURA EM FOCO

The ELO, TOM, and Cultura em Foco Social Technologies did not have activities carried out throughout 2019.

The Cultura em Foco Social Technology aims to preserve the Brazilian traditional handicraft as intangible heritage, professionalize the work of the artisan, and qualify the productive chain of this sector by integrating contemporary design and craft techniques. With the achieved results, Cultura em Foco has been in national and international fairs and exhibitions, with more than 400 created products. Derived from this Social Technology, Origine-SE was created with the objective to merge design and Sergipe's traditional handicraft to create products marketed to tourists as a way to strengthen the identity held in traditional Sergipian techniques.



TOM

The TOM Social Technology aims to promote the continuous improvement of school management, taking into account the competences and difficulties of Brazilian public schools. The steps in developing TOM are carried out in partnership with the schools' management and start with the mapping of processes, which in turn generates the school management self-evaluation tool. The application of this tool seeks to identify the problems and choose the priorities to be dealt with through a collaboratively designed Action Plan. Between 2017 and 2018, the action plans were developed, the bylaws were created, and the School Bylaws and the Political Pedagogical Project (PPP) were outdated.



ELO

The ELO Social Technology aims to improve the relationship between families and schools through integrated mediated integration actions for conflict resolution and for valuing knowledge and education before the community. In the diagnosis made by IPTI and educators, along with families from some municipal schools in Santa Luzia do Itanhy, problems such as low self-esteem, psychological distress, feeling of helplessness, and lack of perspective were observed





IPTI [us] chamber annual event

NYC - 2019

The 2019 Annual IPTI Event happened in The Loeb Boathouse in New York and gathered people who believe in our mission, vision, and values based on human development. The focus of the 2019 edition was the Synapse Social Technology through the perspective of who best understands it: the teachers. Teachers Aline Araújo and Sílvia Regina, the event's special guests, shared their experiences with the application of the Synapse educational methodology in Santa Luzia and the Baixo São Francisco region in Sergipe, and in Barabera, in Maranhão. They also presented future sustainability plans of the newly formed Synapse Teacher Network (RPS).



SPONSOR



IPTI EVENT IN SÃO PAULO - 2019

In 2019, we also held an event in São Paulo, Brazil with the aim of presenting our human development promotion model, with an emphasis on the Arte Naturalista, Synapse and CLOC projects. The meeting took place at the Cantaloup restaurant, where our guests had the opportunity to hear from Genisson Cardoso, one of the beneficiaries of Arte Naturalista, from Klara Ramos Martins, professor and communication coordinator of the Synapse Teachers Network (RPS) and Grazielle Teixeira, student of the CLOC project and who also presented her first book, as a result of her participation in the Romaneiros do Itanhv project.



Microsoft



PARTNERS AND SUPPORTERS IN 2019



PARTNERS AND SUPPORTERS PREVIOUS YEARS



FINANCIAL STATEMENT

Title PROJECTS	Knowledge Area	Contract Period	Contracted Value	Received Value in 2019	Source of funds	
					Public	Private
Alba - Academia de Linguagens e Belas Artes	Basic Education	2017	R\$ 237.893,68	R\$ 9.660,00	-	100%
Arte, Ciência e Tecnologia para o Desenvolvimento Humano - Fase 2	Creative Economy and Education	2018	R\$ 126.000,00	-	-	100%
BAIÃO - 2º ano	Creative Economy	2018	R\$ 26.400,68	R\$ 19.800,00	-	100%
CLOC - Criatividade, Lógica, Oportunidade e Crescimento - (Robótica - Fase 1)	Creative Economy and Education	2019	R\$ 243.000,00	R\$ 243.000,00	-	100%
CLOC - Criatividade, Lógica, Oportunidade e Crescimento - Fase 5	Creative Economy and Education	2018	R\$ 22.500,00	-	-	-
Educação Infantil - Fase 1	Basic Education	2018	R\$ 153.000,00	-	-	100%
Educação Infantil - Fase 2	Basic Education	2019	R\$ 252.000,00	R\$ 252.000,00	-	100%
Gestão e Otimização da Rede de Proteção à Criança e ao Adolescente	Basic Education	2018	R\$ 270.000,00	-	-	100%
Gestão e Otimização da Rede de Proteção à Criança e ao Adolescente (TronCon)	Basic Education	2019	R\$ 256.500,00	R\$ 243.000,00	-	100%
Legados na Educação do Maranhão	Basic Education	2019	R\$ 1.317.300,00	R\$ 395.190,00	-	100%
Lilo	Basic Education	2018	R\$ 81.200,00	-	-	100%
Lilo - Fase 2	Basic Education	2019	R\$ 180.000,00	R\$ 180.000,00	-	100%
Pense Grande	Creative Economy and Education	2019	R\$ 40.000,00	R\$ 40.000,00	-	-
PLDC - Fase 2	Creative Economy and Education	2018	R\$ 198.000,00	-	-	100%
Vetores	Health	2019	R\$ 1.019.330,00	R\$ 638.431,00	-	100%

MANAGEMENT CONTRACT

Management Contract 01/2016	R&D	2016	R\$ 958.568,00	R\$ 209.735,00	100%	-
Management Contract 075/2015	Basic Education	2015	R\$ 7.464.774,92	R\$ 500.000,00	100%	-
DONATIONS		2019	-	-	-	-
Individual and Legal Entity		-	-	R\$ 485.607,43		100%
Assets		-	-	R\$ 168,70		100%
SERVICES						
Execução do Fomento à Qualidade do Artesanato Adequado à Demanda Turística		2017	R\$ 1.513.381,44	R\$ 181.605,77	-	100%
PRIZE						
Prêmio Fundação Banco do Brasil de Tecnologia Social		2017	-	R\$ 30.000,00	-	100%

The financial statements for the financial year of 2019 (January 1st to December 31st) have been audited by Deloitte and are available in our website - <https://www.ipiti.org.br/en/opendata/>

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