## Multistakeholder Partnerships and Digital Technologies for Development in Latin America and the Caribbean

Three case studies

#### Multistakeholder Partnerships and Digital Technologies for Development in Latin America and the Caribbean. Three case studies

This publication has been produced thanks to the support of International Development Research Centre - IDRC, Canada (www.idrc.ca), and is part of an international research program promoted by Global Knowledge Partnership (www.globalknowledge.org).

#### Omar Dengo Foundation (Ed.)

Multistakeholder Partnerships and Digital Technologies for Development in Latin America and the Caribbean: Three case studies / Omar Dengo Foundation (Ed.), Acceso Foundation, ChasquiNet Foundation -- 1a ed. -- San José, C.R.: Ediciones Innov@, IDRC, 2007. 98 p. ; 21 x 27.3 cm.

ISBN 9977-11-032-8

Information Technologies. 2. ICT Technologies. 3. Development.
Organizations. I. Title.

© Omar Dengo Foundation 2007 Edited by Ediciones Innov@ San José, Costa Rica Phone: (506) 257-62-77 Fax: (506) 222-1654 www.fod.ac.cr

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> Printed in San José, Costa Rica, by Lara Segura Impresores

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#### Forword

Multi-stakeholder partnerships (MSPs) are a powerful tool to further development projects. They have become particularly critical to initiatives that promote capacity building processes, improvements in health and new forms of employment and entrepreneurship through the use of digital technologies. MSPs contribute to coalesce and make productive use of different types of knowledge, experience and resources that come together around common interests and goals. They enrich and complement the individual efforts of governments. organizations, academia and companies that would otherwise remain isolated and limited. Furthermore, they also lead innovative solutions, better outcomes and opportunities for sustainability. Still, multi-stakeholder partnerships also confront obstacles, limitations and drawbacks. It is precisely for this reason that the rigorous and systematic analysis of the ways in which these partnerships arise and function, become successful or fail, is of great importance to the international development community.

It should come as no surprise, therefore, that the Global Knowledge Partnership (GKP) and the International Development Research Center (IDRC) have devoted particular attention to this topic and have made it part of their research agenda and knowledge-sharing activities. As a matter of fact, the content of this publication is part of a wider research endeavour undertaken by GKP in Asia, Africa and Latin America which had the support of IDRC in some areas. The general design and coordination of this global study was conducted by Paul Greener from the Foundation for Development Cooperation of Australia. The project was implemented locally by different GKP member organizations. Some of the initial findings of this study were presented as a contribution to the deliberations that took place during the World Summit on the Information Society held in Tunis at the end of 2005.

This publication is based on the research project conducted in the Latin American region. Both the research process and the book, were financed by IDRC. This work comprised three case studies conducted by Klaus Stoll and Oscar Maeso from Chasquinet Foundation in Ecuador, Evelyn Zamora from Fundación Acceso, an NGO working in several countries in Central America, and María Eugenia Bujanda, from the Omar Dengo Foundation in Costa Rica. Mrs. Bujanda was also general coordinator of this regional research project, as well as compiler and editor of this publication. We must acknowledge the researchers and the coordinator for their serious work and for the contributions and lessons derived from the general undertaking as well as from each of the individual cases portrayed. Alliances and networks organized to foster collaborative research and exchange can bear fruits of remarkable conceptual and practical value for the development community. This research project is a good example of their potential. The content of this publication would not have been so rich and so diverse, however, without the key inputs provided by a great number of individuals and organizations that made fundamental contributions through their open participation in personal interviews and conversations as well as through the sharing of meaningful insights, references and documents. Likewise, it would not have materialized without the positive synergies that GKP, IDRC and the participating organizations and experts were able to establish and sustain. Thanks to these links and interactions, we can now hold in our hands a production of ample meaning and value.

> **Clotilde Fonseca** Executive Director, Omar Dengo Foundation Member of the Executive Committee of the GKP

## Introduction

This publication presents three case studies about digital technologis initiatives for development in Latin American involving the creation of multistakeholder partnerships.

Multistakeholder partnerships have been defined as partnerships between entities from the public sector, the non-profit sector, and the business sector aimed at resolving the essential challenges faced by society. They are characterized by the strategic combination of resources and competencies of each of the partners and are based on the principles of equality, shared risk, shared contributions, and mutual benefits.

Rather than considering the various sectors that comprise the socioeconomic structure as competitors or rivals, the partnership approach advocates that the challenges faced by our societies can only be resolved through their collaboration. The strengths of some offset the weaknesses of others and vice versa. For instance, only the state may assign initiatives a public policy status and grant them ample coverage, but it is usually prevented from responding in a timely and innovative manner to the emerging needs. Here is where it may find support in the social sector, since this sector, given its closeness and sensitivity toward the population, especially the most socially excluded communities, has a deep understanding of their needs and of the flexibility required to start using rapid and effective response mechanisms. The academic sector often contributes its expertise in work frameworks and proposals founded on and subjected to a rigorous analysis and research process. The business sector contributes with tested and competitive technical solutions and its economic potential.

This mutual complementarity and need among the various sectors is still more evident in the field of the digital technologies for development given the magnitude and complexity of the solutions required by the current needs in this field. Nevertheless, there are few documented cases of successful multistakeholder partnerships devoted to the promotion of digital technologies for development.

In order to close this gap, the Global Knowledge Partnership (www. globalknowledge.org) has promoted a series of case studies about current experiences in several parts of the world, which aim at going beyond a mere description of their activities or outcomes in order to also analyze the process through which these partnerships were created and have withstood the passing of time.

Three Latin American foundations, Acceso Foundation (based in Costa Rica), ChasquiNet Fundation (Ecuador), and Omar Dengo Foundation (Costa Rica) have united, under the coordination of the latter, to apply the same study methodology partnership experiences to three developed in the region. The purpose of this joint effort is to point out certain performance criteria and stress the lessons learned in the process in order to foster better practices for building and sustaining successful partnerships. Thus, the content of this publication may be of interest to members of organizations working in the digital technologies for development area and people interested in organizational issues.

A secondary objective has been to systematize the three experiences for the

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project executing agencies and provide the possibility of analyzing the lessons learned, the factors that could be improved, the aspects that need strengthening, etc.

The first of these case studies is devoted to the project entitled Technical Training for Teenage Mothers and Pregnant Teenagers at Social Risk in Costa Rica. Acceso Fundation documents the partnership built to offer training in technical areas to this population. This partnership involved the participation of Instituto Tecnológico de Costa Rica (a higher education institution of great prestige that specializes in science and technology) and Patronato Nacional de la Infancia (the public authority that oversees children in need). Other entities involved in this project are Instituto Nacional de las Mujeres (the public office in charge of gender issues), Instituto Mixto de Ayuda Social (the public entity in charge of the social welfare policies), and Centro Feminista de Información y Acción (a private, non-profit organization).

ChasquiNet Foundation presents the second study entitled Windows Tool for the Management of Community Telecenters. This is a project that involved the collaboration of the Organization of American States (OAS), Microsoft®, and ChasquiNet Fundation to provide community telecenters in several countries in Latin America and the Caribbean with the possibility of using software that would facilitate their administrative and operational management.

The third study has been carried out by Omar Dengo Foundation (ODF) about the Costa Rican National Program of Educational Informatics. The work documents the genesis, and evolution of the partnership that promoted this initiative geared toward the inclusion of digital technologies in the public educational system of Costa Rica. This partnership was comprised at its core by Omar Dengo Foundation and the Ministry of Public Education (MPE) and by other partners from the business and academic sectors and from the international cooperation.

Although with logical particularities due to the different nature of the projects and the different authoring styles, the three studies result from the same theoretical framework and the same method to gather data and analyze the information.

The analysis made of the three cases expects to respond to the following questions: How are multistakeholder partnerships built? What makes them successful? What helps them withhold the test of time? What advantages does this working method have over other methods? To provide some answers to these issues, the information about each experience has been systematized around three main elements:

- The partnership building process and its activity: how it was created, its objectives, the activities carried out within its framework.
- *The partners:* their motivations to join the partnership, the contributions each one brings into the partnership, the main risks they have assumed, the obstacles they have had to face, the conflict resolution mechanisms that have been set, the types of agreements that put their partnership into effect.
- The outcomes and lessons learned from each experience.

The information that is systematized and analyzed in the three case studies comes from the following sources:

- Personal or phone interviews with key officers of the organizations in the partnership at different timesthroughout their history
- Questionnaires sent by e-mail to members of the organizations that are or were part of the partnerships
- Review of existing information in several formats and internal documents that contributed to rebuild the partnership history as well as the decisions and administrative and financial processes involved
- Literature review on multistakeholder partnerships and on the projects reviewed in the cases whenever books or articles about them have been published

In every case, the initiatives studied here evidence the need to look for synergies among the various partners in favor of a common goal: the fruitful use of digital technologies to improve people's quality of life and development perspectives in Latin America, especially the most socially excluded populations.

## Technical Training for Teenage Mothers and Pregnant Teenagers at Social Risk in Costa Rica

By Evelyn Zamora Serrano, with the collaboration of Christian Hidalgo Acceso Foundation

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### Abstract

The project "Technical Training to Teenage Mothers and/or Pregnant Teenagers at Social Risk" is addressed to teenage mothers and/ or pregnant teenagers (under 18 years of age) at social risk. The objective is to provide them with technical training in nontraditional, highly competitive areas to promote their reinsertion to the formal education system and contribute to their access to work opportunities and alternative means of resource generation. The initiative is lead by the Costa Rican Technology Institute, a public higher education institution. The INAMU, the National Women's Institute, and Mrs. Lorena Clare, the then First Lady, lobbied to channel some of the resources collected by the government through the cigarette taxes (and administered by PANI, the National Institute for Children) to the training of young mothers at social risk. IMAS, the National Institute for Social Aid, becomes involved when PANI and INAMU decide to support the project in order to locate the young women and mothers that participate in its own programmes at the ITCR initiative. CEFEMINA, a ONG working on behalf of gender equity, has lately assumed a role of contact or information source, establishing a link between the project and the young women in the communities they serve. The most significant impact can be observed on the project beneficiaries: underage and underprivileged mothers without access to education have the opportunity of receiving training in a technical area extremely important to modern society, enjoying a space for personal growth, solidarity, exchange and support. Additionally, the project provides the partnership members more effective means to comply with their institutional missions.

## Introduction

The project Technical Training for Teenage Mothers and Pregnant Teenagers at Social Risk in Costa Rica is implemented by Instituto Tecnológico de Costa Rica (ITCR), a public university that specializes in scientific-technological formation. This Project is part of the initiatives undertaken by the Gender Equity Program of this University.

Several stakeholders from various sectors participate in its development: ITCR, which belongs to the academic sector; Patronato Nacional de la Infancia (PANI), Instituto Nacional de las Mujeres (INAMU), and Instituto Mixto de Ayuda Social (IMAS), which belong to the governmental sector; and Centro Feminista de Información y Acción (CEFEMINA), which is part of the civil society sector.

ITCR is in charge of the project implementation from a social outreach perspective. PANI is the public entity in charge of managing the funds for the project and, therefore, of monitoring the technical dimension of its implementation. IMAS has projects addressed to the target population and its role is to contact the target population for the ITCR project.

The courses offered include computer skills, English, business administration, computer maintenance, and graphic design. They range from a basic level to an intermediate level and, finally, to an advanced level. The teenager placement in the different levels depends on their schooling. The requirement for the advanced courses is to have passed at least the ninth grade, which explains why most of the girls take the basic courses.

The basis level includes computer courses that last between four and six months. At the advanced level, more technical courses are taught, including how to use Internet. In the September 2003 to August 2005 period, 401 young women graduated from these courses.

The initiative is addressed to teenage (under 18) mothers and pregnant teenagers who are at social risk in order to provide them with technical training in non-traditional, competitive areas. Their ultimate goals are to promote their reinsertion in the formal education systems and to contribute to their preparation to have access to better employment opportunities or alternate income generation sources.

# The activity of the multistakeholder partnership

## Partnership history and context

Since 1998, ITCR's Gender Equity Program has undertaken technical training initiatives that emphasize the use of methodologies that may be adapted to the population of young women at social risk. The first project was held in 1998 and was financed by the European Union's Women Program Teenage which contributed 80 thousand dollars. This Project trained 120 young women from urban and rural areas: Turrialba, Sarapiquí, Tárcoles, Cartago, and San José (marginal areas).

The training continued during 1999 and 2000 with funds from the United Nations Educational, Scientific and Cultural Organization (UNESCO), which allowed

for the expansion of the experience and the improvement of the model. This organization contributed 30 thousand dollars from its Program for the Prevention of Sexual Exploitation of Children. A total of 128 teenagers from marginal areas of Cartago and San José were trained.

Afterwards, the Technical Secretariat of Programa Construyendo Oportunidades (Building Opportunities Program) of INAMU promoted the allocation of resources to finance the reinsertion of teenage mothers at social risk to education using the public funds of the Childhood and Adolescence Fund managed by PANI. Law 7972, known as the Liqueurs and Cigarettes Act, in its article 14 item c, provides for:

...the allocation of 200 million colones for the Childhood and Adolescence Fund to finance projects to reinsert teenage mothers at social risk to education

The Fund must be managed by PANI and used exclusively on projects that have that purpose.

The Gender Equity Program took advantage of these circumstances to present its training proposal. Not only was INAMU interested in the Project, it also proposed expanding it by involving Universidad Nacional (UNA) in order to have a wider coverage and to benefit a larger number of teenage mothers. Therefore, in April 2002 started the first multistakeholder project financed with resources from PANI<sup>1</sup>.

In the first period (2002-2003), the funds drawn amounted to 370 thousand dollars and 762 teenage mothers and pregnant adolescents, who were registered in the Building Opportunities Program of IMAS, were trained in marginal areas of Cartago and San José. In the second period (2003-2004), the fund amounted to 146 thousand dollars and the projections expected to train 400 pregnant teenagers or teenage mothers.

The partnership between ITCR-PANI and INAMU was headed by Esther Serrano (2002), who had coordinated the Program for Teenage Mothers of the European Union, and Lorena Flores, both of whom worked for INAMU. The common interest of INAMU and ITCR was fundamental to continue the training and to its interinstitutional approach.

When Esther Serrano joined the National Commission (2002) that worked on behalf of teenage mothers, she brought up the idea of channeling some of the resources collected by the government through the cigarette taxes to the training of young mothers at social risk. The idea was approved by the Commission, in part thanks to the participation of Lorena Clare, First Lady at the time, who was very interested in helping this population. Mrs. Clare talked directly to the administration of PANI to request the transfer of the funds for the project. Such political influence was an essential success factor during the negotiations.

In order to invest the entirety of the funds, the Commission also decided to carry out a similar project in another university (UNA) with its Instituto de Estudios de la Mujer as executing agency. Therefore, another project with a less technical approach was promoted at this University. Since then, ITCR and UNA have had some contact, but without developing a formal

<sup>&</sup>lt;sup>1</sup> The project has had resources from ITCR in terms of laboratories, staff, operational expenses, and physical space to run the project.

relationship, as each institution has reached its own agreement with PANI. The only relationship with UNA takes place during the negotiation of the projects, since PANI follows up both projects simultaneously.

INAMU, despite being the entity in charge of issuing policies on behalf of teenage mothers at social risk, is not currently directly involved in the project. However, it is believed that its reincorporation should be considered as a means to ensure the political will for the sustainability of the initiative. Since INAMU is the entity in charge of overseeing the social welfare policies for women, it should be more actively involved in the project.

Summarizing, in Costa Rica there is a law that regulates liqueurs and cigarettes, known as the vice act, which states that each purchase of liqueurs or cigarettes must pay a tax geared to the childhood and adolescence fund. INAMU identified an opportunity to take advantage of this money to finance the ITCR and UNA projects. But as these universities entered into an agreement with PANI (that manages this fund), the role of INAMU started to weaken, since the agreements need to be bilateral. Then, INAMU took on the role of providing technical assistance with no bearing on the agreements.

When the project was supported by the government (through PANI and INAMU), IMAS got involved as well. This institution became interested in participating to locate the young women and mothers that are trained in the Building Opportunities program<sup>2</sup> in order to improve the monitoring of the target population. In fact, the population that participates in Building

Opportunities was considered a priority in the project agreement.

On the other hand, CEFEMINA had contacted the ITCR program since its origins, when it was still financed by the European Union. Its interest was to support the training of teenage women in non-traditional areas, which required a strong component of individual guidance (psychological support, orientation. individual empowerment, etc.). After this stage finished, CEFEMINA continued monitoring the participants. However, once the PANI-ITCR agreement became effective, the organization drifted apart as PANI restricted the target population by age and the condition of pregnancy and/or motherhood, a perspective that CEFEMINA did not share because they do not work with such limited populations.

Since then, the organization assumed a role of contact or information source. CEFEMINA continued establishing a link between the project and the young women in the communities they serve. In some communities, they were occasionally in charge of contacting the population for the program.

In the beginning, IMAS used to hire NGOs, such as CEFEMINA and VECINOS, to recruit the population for the Building Opportunities Program. Todav the contacts are developed by individuals who do not belong to any organization and who are specially hired for that purpose. This situation has changed the role of ITCR, because now it needs to coordinate with each individual instead of dealing directly with IMAS and the NGOs. Under these conditions, ITCR established a screening strategy to hire the staff that

<sup>&</sup>lt;sup>2</sup> The Building Opportunities Program is a joint INAMU - IMAS project.

will coordinate with NGOs and other entities, such as IMAS facilitators, the Equipos Básicos de Atención Integral de Salud (EBAIS), primary and secondary schools, radio, television, etc., as shown in Figure 1.

#### Multistakeholder partnership objectives

The main objective of the partnership is for the institutions to join efforts, projections, and resources and to place them at the service of a vulnerable population. In this particular case, the aim is to help young mothers and pregnant teenagers to develop skills in a technical area so they can be better prepared undertake to productive initiatives. Therefore, it has been necessary to develop a training model based on the specific characteristics of these participants: female teenage mothers or pregnant teenagers at social risk.

The methodology used for these courses is different from traditional university methodologies due to the younger age of the population. Most participants are young women who have dropped out from formal education, not only due to their pregnancy, but also because of socioeconomic reasons and social-risk related issues, such as domestic violence, extreme control, or lack of family support to continue studying. The participants come from homes in which violence is constant, education is not a priority, and there is significant pressure for them to dropout.

Therefore, the training proposal is focused; that is, specific pedagogic modules have been designed to match the participants' profile. The particular characteristics of the young mothers and/or pregnant women have been taken into consideration. For instance, the schedules have been adjusted to their convenience; materials have been designed to ensure their understanding; lessons respond to their interests and, most important, conditions are provided to help them remain in the program; these conditions include a daycare service and a stipend for transportation and meals.

ITCR, the main promoter of the project, expects the partnership to allow for the organization of a new phase to link the initiative to the formal education system; that is, they would like the participants both to participate in the IT courses and to get a scholarship to continue their fo mal education. The goal would be to allow these young women to complete their training technical and high-school education. Completing formal education is important because, despite their having a technical training degree, it is difficult for underage persons who have no high-school diploma to enter the labor market in good conditions.

Because of PANI's special interest, the partnership expects to change the quantitative approach for a more qualitative one. That is, it expects to provide better training even if it means reducing the number of participants. The improvements would consist on channeling more resources to extend the possibilities of for these girls to attend and remain in the formal education system through provision scholarships and the of continued daycare service, but being careful not to use an assistentialist approach.

Additionally, there is an expectation to implement new stages in the project and new training modules linked to the formal education system through high schools or Instituto Nacional de Aprendizaje (INA) with the purpose of providing better opportunities to the young participants.



Figure 1. History of the Multistakeholder partnership

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#### Partnership activities

The implementation and development of the initiative have required executing the following components:

- Preparation of the project planning strategy
- Academic and methodological design of the courses and teaching materials
- · Hiring of teachers
- Awareness-raising and training of the teaching team to use participatory methodologies and the creation of healthy relationships with students that respect their condition
- Recruitment of young mothers and pregnant teenagers
- Guidance to the population regarding technical options in non-traditional areas according to their aptitudes and preferences
- Implementation of the training process
- Opening of the daycare centers for the children of the participating teenage mothers who require this service
- Evaluation, follow-up, and psychoeducational counseling and follow up for the young women to remain in the project
- Development of permanent coordination with the offices of PANI in charge of overseeing the training program both in the technical and administrative areas
- Permanent evaluation of the project in order to assure any necessary improvements

 Nationwide promotion of the Technical Training Program for Teenage Mothers

#### The partners

#### Partners' motivations and expectations regarding the partnership

One of the main points of origin for the project and the partnership that supports it is ITCR's commitment to undertake social outreach projects that benefit not only its students but the community in its surroundings. ITCS is highly interested in strengthening the integration with several social sectors through its outreach projects. In addition, ITCR Gender Equity Program has the overall objective of promoting programs for the empowerment of women and attaches special importance to socially excluded populations and the development of methodologies that are suitable for them This partnership constitutes

All along we thought about developing a strategy like this one (which goes beyond the simple step of offering a free course to actually having an academic offer with specialized methodologies aimed at teenage mothers). We knew it had to be a partnership; it was clear that ITCR could not do it on its own. ITCR has always been focused on a specific population selected through an admissions test. In this case, we wanted to reach a different population, and we needed the contribution of different entities to make it a reality.

Ana Rosa Ruiz, ITCR

a valuable opportunity to receive government recognition and support. It helps ITCR guarantee greater impact in the lives of the young participants, as summarized by Ana Rosa Ruiz's remarks:

The objective of INAMU in developing a partnership with an institution such as ITCR to support teenage mothers is to channel resources towards the implementation of programs that respond to its policies for that population. INAMU works to give public policies a gender perspective; in other words, its goal is to have funds for specific projects such as this one to reach as many women as possible. Its interest in the project is to participate in a program that uses public policies for the benefit of women.

In the case of PANI, there was no initial interest in the project or the partnership. Managing the funds for the initiative was politically imposed since, by law, the resources from the liqueur and cigarette tax must be deposited into the Childhood and Adolescence Fund, which is managed by PANI. Nevertheless, as PANI must report its budget execution to the General Comptroller's Office, it realized that the project offered an opportunity to allocate funds in such a way that it may benefit a larger number of people. Additionally, it is interested in giving the Comptroller's Office a report that reflects not only the good use of resources in quantitative but also in qualitative terms. In other words, it wants to demonstrate that the resources are invested in quality education programs with satisfactory outcomes.

On the other hand, the main objective of IMAS to join the partnership is to

facilitate the participation of more women in the Building Opportunities Program; the ITCR IT-skills training project is an additional option in the formation package offered by this program. The main risk for the partnership at this time is that when the Building Opportunities Program ends, there will no longer exist much of a relationship between the institutions, because the population can actually be contacted through other means.

CEFEMINA's main interest in the partnership was to exercise political vigilance as it is an organization of the social sector with wide experienced in the management of women issues. Therefore, since the project was initiated, it made it clear that female organizations should have a consultancy role over the content offered to avoid victimization of the young women or misunderstanding the fact that they are pregnant. At this time, the organization is not carrying out that role within the project; it only carried out an evaluation that was requested of it given its experience in the field.

Figure 2 below contains a list of the stakeholders involved in the partnership and their specific objectives. It is important to explain that the current partnership between ITCR and PANI is in effect through an agreement signed by these institutions. Other institutions, such as INAMU and IMAS, are not directly involved but have an informal role in the project due to their particular interests. CEFEMINA is not playing any specific role in the partnership and only carries out specific tasks requested of it such as the aforementioned evaluation.



Figure 2. Stakeholders and objectives of the formal and informal partnership

#### Main obstacles or risks faced by the partners when entering the partnership

The first obstacle of the partnership was the lack of recognition of the project by PANI. Initially, PANI did not value the initiative. They felt that although the funds belonged to the institution, INAMU was imposing rules on their use. This was a difficult to solve conflict.

Some legal obstacles appeared throughout the process. One of them was the fact that due to legal requirements the Childhood and Adolescence Fund resources can only be used to train underage persons. This requirement has a negative impact on the population because once the young women turn 18 years old they can no longer remain in the program. In this sense, the partnership with PANI, although fundamental to obtain financial resources, has actually made it impossible for some participants to remain in the program, even when they actually need it.

In addition, since PANI is a governmental entity whose top officials change according to the political cycle, the project needs to be renegotiated and disseminated each time new technical managers are appointed because there are no internal mechanisms for this purpose.

Along the same line, an additional problem is in sight. Public financing depends upon the annual budget of the government, which means that every year at the end of the budget period, ITCR must renegotiate the project. This process jeopardizes its continuity.

Another requirement related to the fact of it being a project financed with public funds is that the partnership needs to carry out a INAMU's technical contribution to the project is voluntary. We do receive a certain degree of respect, and we are allowed to make suggestions. However, since we cannot be a party to the agreement, our decisions are not binding.

Esther Serrano, INAMU

series of formal procedures and enter into certain agreements. However, at the time the partnership with PANI started, such procedures were not clear. In fact, although these procedures do not interfere with the execution of the project, they do take up considerable time because of PANI's slowness in processing the paperwork.

Such formal procedures entail an additional problem. Since INAMU is not officially or legally a party to the agreement, it may participate but not make decisions. This is considered negative because INAMU is the institution with the most experience in dealing with this sector of the population.

## Roles and contributions of the partners

ITCR's contribution to the partnership through its Gender Equity Program is the facilitation of technical aspects, and the development the proposal of academic content, the delivery of the courses. and the management of the scholarships. In other words, ITCR is in charge of the technical and methodological proposal. Moreover. this institution brings about women's perspective about their participation in

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science and technology. It also develops mechanisms to create awareness among the other stakeholders with regards to women's access to technology.

On the other hand, PANI is in charge of financial issues. It has an important role in defining the number of participants, since this depends on the allocation of resources. Additionally, it carries out some of the project audits. Recently, it has taken a more active role in technical aspects as it has made some proposals and has been monitoring the project. Thus, PANI is involved in the decision-making processes together with ITCR.

The role of the NGOs and IMAS is to facilitate the recruitment of the participants. They do not have any participation in the decision-making process.

The participation of IMAS is a clear value added since it contacts the young women who have participated or are participating in its Building Opportunities Program, a personal growth program where they learn to restore their feminine condition and strengthen their personal capabilities.

We manage the funds. The Ministry of Finance collects the taxes and transfers the amounts directly into the Childhood and Adolescence Fund, according to Law 7172, articles 14-15, which specify that part of those resources must be devoted to social risk projects and another part to teenage mothers. Nevertheless, we are not capable of using the funds on our own. We do not have the experience to provide training or manage the resources directly.

Marvin Castro, PANI

This process makes the participants have a perspective when they get to ITCR that is different from that of a young woman who has never experienced a personal empowerment process.

INAMU has played a fundamental role in the partnership. Initially, the influence of the First Lady as well as its contact with PANI was essential. Today, its advice is still important to the project, however its participation has been declining due to changes in the staff in charge of monitoring it.

#### Decision-making mechanisms

The most commonly used decision-making mechanism at the beginning of the project was to organize discussion meetings and reaching agreements that later were turned into legally-binding contracts between the institutions.

At this time, there are no formal decisionmaking mechanisms in place. Follow-up meetings are requested by one of the parties (PANI or ITCR). Technical coordination meetings among PANI, ITCR and UNA take place every time a new project needs to be formulated and implemented.

One of the recommendations to the partnership is to develop formal mechanisms to monitor the project and establish communication channels between the partners.

#### Conflict resolution

The method to overcome conflicts depends upon the quality and level of communication between the parties involved. ITCR reports an almost constant communication with PANI through the organization of meetings and virtual communications.

In this sense, it is acknowledged that the Internet has played a fundamental role in aiding communications. That is, although the meetings are not organized through a formally established communication mechanism between the partners, ITCR and PANI have set their own means of communication.

A situation that bothered INAMU at the beginning was the fact that a bilateral rather than a tripartite agreement was entered into between PANI and ITCR. However, the problem did not pose a serious threat to the project once INAMU decided that it was more appropriate for it to remain external to the contract and play exclusively an advisory role.

Working with a written agreement has proved to be beneficial in the sense that it helps avoid conflicts between the parties.

The agreement itself states that a technical financial report must be presented whenever funds are requested. At that time, a meeting is convened to decide whether to transfer the funds or not. There is also a commission comprised of members from PANI and ITCR that meets regularly. And, since there is also a relationship between PANI and UNA, joint meetings are organized as well.

Ana Rosa Ruiz, ITCR

Regulations establish rules for negotiation and define the roles and functions of the parties. The agreement sets the foundation for agreements signed by each of the stakeholders and helps to reduce conflicts.

## Digital technologies' role in the multistakeholder partnership and in the project

# Digital technologies in the partnership

Digital technologies have contributed to the development process of the partnership and, thus, to the achievements of the project. They have been used as a communication tool between the parties, and they have also facilitated the search for information about similar experiences.

For instance, we have contacted a person in Argentina, and we are transferring and receiving information about a project in Argentina, carried out in a place far away from Buenos Aires.

Esther Serrano, INAMU

The tools most frequently used are e-mail, Internet conferences, and information searches on the Web. The Internet has been a practical tool because the people in the partnership are very knowledgeable of its use and have connectivity at work. Mailing lists have been created to exchange information within the groups. However, they have been used mostly internally at ITCR rather than at the multistakeholder level. To facilitate communication among the trainers, a platform called D groups has been used. Since the instructors who teach the courses are not permanent employees of ITCR, the Internet has been very valuable in the facilitation of communication with them.

The creation of common virtual spaces has been considered in order to visualize the initiative and to understand that several partners are actually building this process. However, the initiative has yet to be consolidated. Both a CD digital presentation of the project was prepared to disseminate the information about it, but the presentation has not yet been uploaded.

Although it is recognized that the Internet is a necessary resource to achieve better coordination between the partners and to provide value added to information exchanges, in this case, it was effective during the consolidation of the partnership but not during its creation or negotiation processes.

Nevertheless, there is still a long way to go before the partners involved in the project can take the most advantage of the Internet and turn it into a valuable tool for the strengthening of their partnership. Its use could certainly boost the communication process and the exchange of knowledge. For this purpose, it would be necessary to design a joint strategy (including all the partners) to embrace those Internet applications that adapt better to the needs and requirements of the partnership and its dynamics. It would also be necessary to establish the resources and capacities needed to implement the strategy.

# Internet contribution to the achievement of the project objectives

It should not be forgotten that the very nature of the training offered is based on digital technologies. Almost all the courses given have been taught in laboratories comprised by computers and networks. The academic offer is based on an information exchange platform. During their Internet training, the young women have been taught how to use the Internet to search for information.

Moreover, the Internet has contributed to achieve the objectives of the project, mainly those of the advanced training levels, because some of the participants have been trained in the construction and design of Web pages.

Although very specific activities have been promoted in some instances, such as helping the girls pay for time at an Internet Café to prepare homework and practice without having to come to ITCR, the tool has not been utilized to communicate with the students because they do not have access to e-mail. The young participants do not have the necessary resources such as

Well, there is a problem with connectivity. I personally thought it would be brilliant to use part of the scholarship given to the girls to pay for time to use the Internet. I thought it was a great idea, first because it would provide them with more options than just going to ITCR and because it would probably give them an opportunity to appropriate a space that probably no one in their circle is using.

Ana Carcedo, CEFEMINA

a computer and Internet access at home. Many do not have free access nearby their homes nor can they afford time in an Internet café.

Outcomes and lessons learned

The organizations involved in the multistakeholder strategic partnership believe that their objectives have been reached since they have obtained the expected outcomes from the population: the teenage mothers remain in the project; they participate in the training; and they have received a diploma. Of the total number of students who started the digital technologies course in the 2003-2005 period 75% graduated and only 23% stopped attending or never attended the course (Table 1).

Furthermore, good team work has taken place among the participating institutions: ITCR has provided training and coordinated the project; PANI has provided the funds; IMAS has contacted the population; CEFEMINA has evaluated the project; and INAMU has been the consultant. As a result, the training offered is of high quality and has been adapted to the requirements of the current society.

# Benefits of the partnership approach

The main impact of the partnership is the one made on the population that takes part in the Project: underage mothers who live in poverty and who otherwise have no access to studying at ITCR, thanks to the project may get some technical training there that is very important in today's labor market.

Moreover, thanks to this project ITCR contributes to the practical application of the University's gender-equity policy. The project has helped to consolidate the Gender Equity Program and has made it obtain visibility in the academic sector as well as recognition from the faculty and the student community. In this manner, the partnership that makes the implementation of the project possible also contributes to the acknowledgment of the Program, which will have a bearing on its validity and development.

## Table 1.Performance data of the IT Training Program³(September 2003- August 2005)

Total number of students graduated from the Program	401
Students still taking IT courses	2
Students who completed the course but failed to pass	10
Students who never attended the course or dropped out	125
Total number of students registered	538

<sup>3</sup> The digital technology training program includes courses in computer skills, English, business administration, computer maintenance, and graphic design.

Likewise, the partnership is helping PANI to divert the destination and use of the funds it manages to attend the needs of a portion of its target population. PANI is directly involved in a program that helps improve the living conditions of the participants. Having the opportunity to contribute with resources for a program coordinated by a higher education institution, allows PANI to channel the funds to an institution that has the technical expertise and implementation capacity it lacks.

The girls that we interviewed explained that the strongest impact of the project is that it is very appropriate because it is not only providing them with technical training, but also personal support; they have the possibility go to the university campus and be a student there. This seems to be very important to them.

Ana Carcedo, CEFEMINA

In the case of IMAS, the partnership is helping this institution to increase its impact on the population it serves. This has a direct influence on the achievement of its goals and, as a result, on the compliance with its mission. If the institution is capable of having its target population to participate in the project, its efforts to improve their lives are enhanced.

Furthermore, the project provides these young mothers a space for personal growth, solidarity, and support. Thus is reflected in the evaluation carried out by CEFEMINA.<sup>4</sup>

*In our case, we would face a great problem if* the partnership did not exist, because there are no other options. There are no other options to provide financial aid for a young woman, give her a stipend for transportation, childcare services, and a space to study without having to comply with many requirements. For our program, there is simply no other option. For instance, the girls remain in the program for six months where they work on building their identity. The project at ITCR opens new possibilities for them because most of these girls live in poverty, and the courses may help them find a better job. We want to increase their technical and educational options to help them improve their living conditions and to improve their employment possibilities.

Mónica Vega, IMAS

INAMU, as the institution that works for and on behalf of women, is strengthened by the partnership because the implementation of a successful experience such as this which can be taught and replicated brings about benefits to young women. It is a way to apply and disseminate the philosophy of the organization, the belief that women need and are capable of participating in technology areas, mainly because of the benefits it provides to the Information and Knowledge Society. Furthermore, the establishment of strategic multistakeholder partnerships with high-level universities, such as ITCR, helps develop its institutional prestige.

<sup>&</sup>lt;sup>4</sup> Evaluation done to assess the impact of the digital technology training on the teenage mothers or pregnant teenagers at social risk carried out by CEFEMINA in August 2004.

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For INAMU it is important to see how public funds can be used to the benefit of young women. We are trying to achieve our objectives beyond formalities. This project has been well structured and implemented. We believe it can be successful and that it is based on a philosophy that we share, which is the need to incorporate women in technical, non-traditional, competitive fields. We believe this is a gateway for a change in sociocultural values. In this sense, it represents an important gain. It is also beneficial for us to build multistakeholder partnerships with prestigious universities.

Esther Serrano, INAMU

Figure 3 on the following page shows a diagram that visualizes the impact theory of the project.

## Costs of the partnership approach

A problem that results from the partnership with PANI is the limitation of the target population by age. Since PANI works on behalf of childhood and adolescence, it cannot contribute funds to projects aimed at persons over 18 years of age. The age limit is a legal requirement that imposes a serious handicap to the development of the project. There are cases in which the young women would like to continue their training or, at least, to conclude the modules they have initiated, but it is not possible due to the age requirement. We have requested legal counsel and all the counterparts have given it a lot of thought. We have been trying to figure out how to justify that it is important for an 18-year old girl to continue the training. However, until now it has not been possible. The Comptroller's Office and PANI are very strict about the age limit. We actually have to follow a special registration procedure to guarantee that no one over 18 enters the program.

Ana Rosa Ruiz, ITCR

This is the reason why CEFEMINA is losing prominence within the partnership and the project. It believes that the orientation of PANI is inappropriate, since it is simply complying bureaucratically with some institutional guidelines and is not open to other approaches.

It is simply absurd that they are asking teenage women who have just given birth to start attending school and to do it before they turn 18. If after a pregnancy, in most cases unwanted and stigmatized, which has already produced a loss of rights, you ask a girl to start going to school, be efficient and finish before turning 18 because after that it is not possible to continue... then something is wrong. Even the girls explained during the evaluation that it didn't make any sense to be asked to withdraw at that moment, precisely when they need it most, when it is the best time to take advantage of the training. If the program has already invested in them, they should be allowed to continue.

Ana Carcedo, CEFEMINA



Figure 3. Impact theory of the strategic partnership In the case of IMAS, a difficult issue that has resulted from the partnership is that the Building Opportunities Program is open to teenage mothers and pregnant teenagers, but also to teenagers that are not mothers, so when the training opportunity is offered to just a part of the group, the participants do not consider it fair. When IMAS first contacted the project, it was not clear to them that the program was just for teenage mothers; they understood that the training would be offered to all the women in the program. When they realized the situation, this affected the motivation of the young women.

There also seems to be a problem with the source of funds. Since the project is being financed with public resources, it is clear that the funds are not only restricted, but also difficult to utilize. The request process is bureaucratic, not because of lack of willingness to transfer the funds, but because of the legal procedures required from public institutions.

The fact that we receive funds from the public sector is already a problem in itself. For instance, since the funds are made available through a law, they are subject to collection by the Ministry of Finance and to their timely deposit in the PANI fund. So it is possible to experience delays. For this reason, sometimes PANI does not have the funds available at the exact time they are requested.

Laura Queralt, ITCR

An unexpected consequence of the partnership is the waiting time or transition period between one project and the next.

The idea was to have a project with an initial period of five years, with regulations and reports for every year of operations. What had not been expected was renegotiating the project after the first year, a process that takes approximately one year. ITCR was not aware of this situation from the beginning of the partnership. For this reason, almost a year and a half went by before it was possible to reinitiate the project. The delay affected the sequence of the project and the continuity of the participants.

For instance, some of the girls started when they were 16 years old. They participated for a year, and then they had to wait because the courses were not offered. When the funds were finally received and the third stage of the project was initiated, they had already turned 18 and were no longer allowed to continue with the training. This affects the target population. There are girls who call asking "when is the project going to start? I am turning 18 in August and if it doesn't start in July, I will not be able to continue." That's how serious things are.

#### Laura Queralt, ITCR

Furthermore, after the consolidation of the PANI-ITCR agreement, there was a work overload due to the fact that the NGOs and IMAS stopped managing the instructor hiring process. Thus, this duty had to be assumed by the staff of ITCR Gender Equity Department. IMAS is still contributing with some specific activities such as workshops to support the staff, but most of the accompaniment process had to be assumed by ITCR.

# Characteristics that have made the partnership effective

One of the factors that have influenced the most the effectiveness of the partnership is the perseverance demonstrated by ITCR Gender Equity Department. This office has made efforts to continue operating in the institution and to keep the project going on despite of staff changes at ITCR, PANI and INAMU.

Without a doubt, the persons involved have played a fundamental role in the partnership. Both the people who participated at the beginning of the project and during the negotiations of the strategic partnership, as well as those who took over subsequently, have assumed the commitment of keeping the relationships current in order to achieve the continuity of the project. Besides their commitment, they have also required a certain degree of synergy.

Additionally, the organizational and institutional structure has been very supportive of the project. The institutional framework and the trustworthiness of the project have guaranteed its continuity, especially by providing resources.

### Conclusions

Lessons learned regarding the factors that contribute to the partnership success

The multistakeholder partnership is very dependant upon the people in charge, their level of commitment, and the degree of empathy developed among them. Partnerships are built on trust.

In the case of PANI the project was imposed to them and; therefore, they seemed to reject it in the beginning. But after Jorge Sanabria assumed the management, the institution became very fond of the project and provided great follow up. However, this person is leaving because he is appointed by the government in power. When new people arrive, we have to help them fall in love with project all over again. It depends a lot upon whether or not the technical administrator designated for the position likes the project. For instance, for the last year and a half, we have maintained an excellent relationship with PANI thanks to the persons that are working in the project.

#### Laura Queralt, ITCR

For instance, I know the colleagues who pioneered the project and they have insisted over and over again to keep the project going. They have great vision and commitment. There is also an institutional framework in place. The support of ITCR and PANI helps them by-pass and overcome the obstacles.

Esther Serrano, INAMU

In this sense, there is another success factor in the partnership: communication. Good communication channels need to be established between the parties, and this is where a tool such as the Internet becomes important because it facilitates fast information exchanges, especially when the circumstances prevent face-toface meetings for long periods of time. A very positive element is the experience accumulated in relation to how to approach different parties, particularly the public sector and the persons in charge of the institutions. Lessons have been learned about the presentation of projects, their outcomes, what they can offer, and what is required. The political support received thanks to this experience, when the project received public financing thanks to a conversation with Lorena Clare (former First Lady), has permitted the continuation of the project.

An additional strength developed as a result of the partnership is how to join the efforts with an institution that works with an important sector such as childhood and adolescence but that cannot deal directly with the issue of young mothers and technology and an institution with the knowledge and the expertise to carry it out. The success factor consists of admitting that it is not possible to solve a problem in isolation.

Multistakeholder partnerships need to have an objective shared by the parties; they must be kept from searching in different directions. In other words, the wish to benefit the target population must be shared. The partners need to develop a genuine concern for the target population. In this case, the objective of providing young women with access and experience in the use of technology is a way to comply with the objectives shared by the partners.

Another fundamental element is the political support provided to the project by the institutional higher authorities. People in technical positions have the greatest stability in public institutions, but this is not true of decision makers. They are the ones who have a good deal of influence on the sustainability of the initiative and are in charge of establishing relationships and developing negotiations at the political level. On the other hand, another motivation for the partners is their participation in a visionary project with an open perspective and time to extend the scope, instead of a short-term project that will end in a few years.

It is a reality that the multistakeholder partnership does not work just because there are formal mechanisms that make it possible, but because there are institutions and persons that are willing to participate, even beyond the formality framework, and provide their large or small contributions.

The experience has been innovative in two areas:

- The multistakeholder administration of funds: this was a first-time experience for PANI. At the legal level, it had to enter into a type of agreements that were different from those it had signed in the past.
- The partnership between different sectors to incorporate technology within the training portfolio of a very restricted sector: teenage mothers at social risk.

# Lessons learned regarding the factors that interfere with the progress of the partnership

A lesson learned during the creation of the partnership is that it is necessary to know all the implications of the project, from the smallest to the largest. For example, although all the partners were aware of the age limitation of the program, neither one of them had realized its possible implications in the continuity or conclusion of the training for some of the young participants. Therefore, an important requirement is that the partners are very aware of the internal regulations of their counterparts.

Another important lesson is the development of a relationship with the General Comptroller's Office. It is important to learn how to negotiate with the institution because, ultimately, this is the entity that through its supervision decides whether or not the project continues. Despite having such a relevant role, during the initial stages of the project, the parties did not perceive it at all as a stakeholder with which they had to negotiate.

Another factor to be considered is the participation of other entities important to the partnership, such as the Ministry of Education (MPE). MPE should contribute to the strengthening of the process since many of the practices implemented as part of the project are related to formal education. Through its support, it would be possible to help the participants conclude their formal education and, eventually, make it easier for them to enter the labor market. Moreover, the Ministry would benefit from the methodology and particular approach developed for this population.

The lack of continuity of the person in charge of the project is another factor that may restrict its success. This condition is especially true in the case of PANI, since the support of the technical director has a direct impact on whether the project moves faster or slower. The main difficulty is that the agreement assigns the technical direction to a politically appointed position, which may change at any time. This situation has a direct impact on the project.

Some of the counterparts of the partnership believe that there is information being exclusively managed at the higher levels, and that there are no mechanisms in place to facilitate the flow of information. An efficient mechanism to inform the partners about the breakthroughs or agreements obtained is yet to be implemented. Moreover, there are no clear guidelines on how to track current events. The outcome has been a reduced involvement of the partners.

An aspect of the partnership perceived as inconvenient by the partners is the lack of definition of the target population from the startup of the project. Some of the conditions of the project were not clear from the beginning, such as the periods for the courses, the available resources and the recruitment requirements.

The initial projects were addressed to young women at social risk in general. It was actually the availability of the funds from PANI that restricted the coverage to teenage mothers. However, there is a valid social reason to develop a fund for this sector, and in the case of ITCR, there is no actual problem with the motherhood limitation. Nevertheless, the age limitation does not respond to a legal requirement, but to the fact that the fund is managed by PANI. As a matter of fact, at some time during the negotiations, INAMU considered the possibility of managing the fund to overcome the restriction.

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## Windows Tool for Managing Community Telecenters

By Óscar Maeso, in collaboration with María Eileen Delgadillo and María de Lourdes Acosta ChasquiNet Foundation

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### Abstract

The project seeks to process and manage capacities building for the somos@telecentros Latin American Telecenters network members through the use of the Microsoft Digital Community Centers tool (DCC), a tool designed to improve the management of services offered by the telecenters. The project was designed by the Integral Development Executive Secretariat (SEDI) of the Organization of the American States (OAS) in the framework of a programme aimed at promoting the use of digital technologies for development in Latin America and the Caribbean. Microsoft became a partner of this project invited by SEDI/OAS. This company developed the tool for the telecenters and provided additional software and licenses to legalize the software existing in the beneficiary telecenters and the economical resources to make viable the project. ChasquiNet Foundation as a center of excellence in digital technologies for development was invited by SEDI/OAS to implement and redesign the project in the field level. The major contribution was the expertise in community development with telecenters, training, technical advisory and installation of the tool. The partnering process was slow and presented several challenges which were overcome with the collaboration of all the partners. The major outcome was that the partnership itself proved to be an effective strategy to reach all the objectives set initially. The win-win model and the innovative implementation approach developed by ChasquiNet Foundation were proven to be key success factors.

## Introduction

This document is a case study on a multistakeholder partnership (MSP) between the OAS<sup>5</sup> Executive Secretary for Integrated Development (SEDI<sup>6</sup>), Microsoft®,<sup>7</sup> and ChasquiNet Foundation<sup>8</sup> of Quito, Ecuador, for working directly with the Latin America and Caribbean telecenter network, somos@telecentros<sup>9</sup>.

The partnership was founded in 2003 for the purpose of installing and training community telecenters in the region in the use of a Windows tool for managing telecenters. The operating agreement was set up directly between Microsoft® and ChasquiNet Foundation.

The project was designed by SEDI/OAS in the framework of a program directed to the promotion of the use of digital technologies for development of Latin America and the Caribbean. Microsoft® got involved in the project due to an invitation of SEDI/OAS. This company developed the tool for the telecenters and provided additional software and licenses to legalize the already existing software in the beneficiary telecenters, also provided as wall the economic resources to make the project viable.

ChasquiNet Foundation was also invited by SEDI/OAS to introduce and redesign the project so that it could be taken into the field. Its major contribution was its expertise in telecenters community development, training, technical consultancy, and installation of the tool. Its creative and innovative approach in the implementation of the project has been an element that all the members in the alliance have praised.

Marriage, according to some authors<sup>10</sup>, is humanity's first universal institution. This social institution among individuals has acquired various forms in existing cultures; it has withstood the test of time, its function unaltered by minor evolutionary changes.

In the literature review of case studies of partnerships for sustainable development in Latin America, the term marriage was used by Spanish-speaking interviewees to describe partnership-based projects. The term was also used several times in the interviews for this paper.

Thus, for the purpose of this case study a narrative model is used that includes parallel texts with anecdotal situations reflecting the similarities and differences in the terms partnership and marriage. These should be interpreted as cultural situations pertaining mainly to Western European cultures.

This parallelism has been used as a literary tool for making it easier to read the case study and understand the term multistakeholder partnership (MSP) in the context of digital technologies for development<sup>11</sup>. To prepare this study, several many diverse information sources were used.

<sup>5</sup> http://www.oas.org

<sup>&</sup>lt;sup>6</sup> Formerly called the Inter-American Agency for Cooperation and Development (IACD) http://ww.oeainnovacionesyalianzas.org

<sup>&</sup>lt;sup>7</sup> http://www.microsoft.com

<sup>&</sup>lt;sup>8</sup> http://www.chasquinet.org

<sup>9</sup> http://www.tele-centros.org

<sup>&</sup>lt;sup>10</sup> http://www3.planalfa.es/irhcordoba/document/elio.htm

<sup>&</sup>lt;sup>11</sup> The term partnership will be used throughout the document.

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It should also be pointed out that, according to Knowledge Resource Group (2002), the term partnership can be applied when:

- There are enough people who recognize the term as an adequate description of their labor relationship
- Those who are directly involved wish to be acknowledged as partners
- Partners continue to accept each other's legitimacy

With these notes to the reader, this document was prepared for sharing the experience and knowledge generated throughout the creation of the partnership, the difficulties encountered, the solutions adopted, and the tools used in the process.

# The activity of the multistakeholder partnership

#### Context of the partnership

While the international arena is preparing for debates on issues such as economics of information, economics of knowledge, economics of attention, privacy vs. liberty, Internet governance, and open source software vs. licensed software, to name a few, the Internet undoubtedly appears to be entering our daily lives, or at least the lives of a privileged few, with an impact on individuals and society, and we cannot say that many of these users really understand the scope of its use. As Shuler (2000) says, although the Internet may be a platform for change, we really don't know yet what kinds of changes it will bring. Undeniably, its development and expansion have been spectacular, but it has not been accompanied by enough studies or reflections to enable us to fully understand what is happening in the relationship between this technology and the people using it, the people who are not, and social change.

As in all major debates, there are devotees and nay-sayers with respect to the possibilities of change offered by digital technologies. The possibility of these tools being used for some type of social change depends on many factors. And the fact is that there are persistent problems in the history of humankind underlying the digital age, including social exclusion in its different interpretations, which have evolved at a slower pace. In this digital age, exclusion has been re-baptized as the digital gap, infoexclusion or infopoverty, to mention a few of the more common terms.

This case study presents a model ChasquiNet Foundation calls researchaction-reflection, for promoting digital technologies for integral human development through the community telecenters experience.

Community telecenters in Latin America and the Caribbean are growing very quickly, in part due to the slow government actions in the field of digital technologies for development. The lack of resources is one of the biggest challenges for the success of these experiences in terms of financial sustainability. Multistakeholder partnerships, as well as regional networks, have demonstrated to be an effective solution to share resources and increase their impact on the communities. In this sense, ChasquiNet Foundation is one of the main Latin American agents in the matter of community development and a key player in somos@telecentros, the biggest telecenters network in the region.
### Paper Anniversary (Two years alter the wedding)

The partnership was formed idyllically, somewhat like those marriages where the couple can't agree on when or where they first felt Cupid's arrows, or on who had made the first move.

In reality an MSP is more complicated than a marriage, since there are more partners involved. They could be called the godparents of the wedding, but they are really much more than that. They are part of that new type of partnership in which everyone contributes (in accordance with their interests and points of view) to achieving a common goal going beyond the partnership itself. beta version of the application and decided to share it with organizations with similar needs.

In 2002 Microsoft® and the Organization of American States (OAS) conceived of a regional project to help with study cases (pilot projects) on electronic government, known as e-government, in Latin America and the Caribbean. In this manner a memorandum of understanding (MOU) was signed in 2003 by both partners. Said memorandum included a component for installing the abovementioned tool, called DCC Microsoft® Solution for Digital Community Centers.

### History of the partnership

According to Rafael Pérez Colón, Microsoft® General Manager for Relations with Multilateral Organizations in Latin America and the Caribbean, the project dates from a long time before the actual partnership was formalized. Microsoft® became interested in the development of a tool for managing digital technologies public access centers, which include community telecenters, cybercafés, community digital centers or information kiosks, as they are more recently called, as part of a development project in Mexico in 2001. The tool in itself, however, was designed for private centers with commercial objectives, commonly known in Latin America as cybercafés.

Microsoft® found that it needed to improve the tool's stability and accountability to make it easier to use and to optimize the services offered by the aforementioned centers. Thus Microsoft® developed a



### Microsoft Solution for Digital Community Centers

The project itself was designed by the OAS through the Executive Secretary for Integral Development (SEDI), which for the first time in its history included a search for private sector partnerships in its mission.

According to the interviews, the partnership creation, like any other process, was slower than what may have been implied up to now by this document. SEDI/OAS and Microsoft® went through a mutual phase of getting to know each other in which the political and social vision of SEDI/OAS confronted the business vision of Microsoft®. At first, in fact, the visions seemed incompatible, but little by little the differences were reduced until they were able to arrive at the aforementioned MOU between the parties.

### When we were dating...

But this partnership, according to the simile we started with, had its dating phase - a phase in which the partners got to know each other. In this phase, as with any couple, the defects and virtues of each became evident. In fact, the families' prejudices tend to come out during the engagement period when the possibility of marriage is foreseen.

The families, that is, the private sector, the social sector, and the political sector have existed for many years in our societies and have always glanced at each other sidewise, giving rise many times to preconceived notions of who each one is.

The centers initially identified as beneficiaries of the pilot project were in areas classified as rural or marginal urban zones. This led both partners to consider the necessity of involving third parties with experience in this area.

With respect to this, SEDI/OAS played a leading role in forming the partnership, since it served as a link between Microsoft® and ChasquiNet Foundation. Due to SEDI/ OAS references on the work of ChasquiNet with community telecenters and their direct link with the network somos@telecentros, Jorge Durán, one of their officials, entered into communication with the Foundation to guarantee the partnership's development with the social sector. It was evident that if the project wanted to ensure social impact, specifically through the region's community telecenters, it had to include in the partnership a partner with expertise (Experience+Know-how) and an adequate social mission.

ChasquiNet Foundation is located in the city of Quito, Ecuador, where it has been

working since 1998. ChasquiNet is a member of the telecenters for Latin America network, somos@telecentros, and is its main promoter worldwide.

Before accepting any kind of partnership participation, ChasquiNet reviewed the documents on the proposed project and noticed that the Microsoft® tool was basically designed for cybercafés. It was on this point that the project's proposal had to be discussed in greater depth among the partners. ChasquiNet needed to make it very clear that the somos@telecentros network consisted of community telecenters and not cybercafés. This type of center is understood as "experiences using digital technology as tools for human development within a community. The stress here is on the social use and appropriation of technological tools as part of a project for social change aimed at improving living conditions. Technology and connectivity are important but not sufficient for the proper functioning of community telecenters, and the achievement of their development

### Two's company, three's a crowd...

"...My mother-in-law came to visit for a few days and stayed indefinitely..."

Some marriages have gone through this situation, and they have been worse or better off with respect to the dialogue they had before and their ability to conceive of family beyond the married couple.

In a MSP the exchange of know-how is part of the partnership. With more partners participating in the union, the know-how of all of them, their different points of view, and their ways of working contribute to the ultimate goal of the union. In the case under study, this is development. objectives. Community telecenters provide training for facilitators and promoters, covering not only the technical aspects of information and communication, but also the strategic uses of digital technologies for social change. The community telecenters are places for social encounter and interaction, for learning, for personal growth and for mobilizing efforts to address community problems and needs" (Delgadillo, Gómez & Stoll, 2002: 8-9).

The dialogue, mutual know-how, and discussions continued among the parties, but this time with the active participation of ChasquiNet Foundation. The foundations of this dialogue showed that the proposed project could strengthen the somos@ telecentros network with respect to updating and improving existing software at the member community telecenters. So ChasquiNet invited the members to participate, through a competition, informing them with full transparency of all the details of the DCC tool, and the conditions, objectives, and background of the partnership. The response was fairly warm, and through a process of selection, the beneficiary telecenters were chosen for participating in Microsoft's action plan for installation and training. Up to this point ChasquiNet's only function had been to inform of a tool that could benefit the region's telecenters.

We might say that this was the moment the partnership was born.

*One is nothing, but together we make a difference.* 

Karin Delgadillo, Executive Director, Foundation ChasquiNet

### Partnership objectives

As it was said before, Microsoft® DCC tool has the purpose of contributing to the good management and administration of the telecenters. It is an application that tallies anything from time and costs, to broken and offline machines. The cost of the application, the software, the installation and training, as the respective licenses for an unlimited amount of time were offered free of charge to the telecenters participating in the project. Furthermore, since the tool did not work with the Linux servers, the project also included the installation of the necessary commercial software to make the application run for free<sup>12</sup>.

Specifically, the objectives of the partnership are the following:

- To foster the development capabilities for members of the telecenter network somos@telecentros, by using Microsoft's DCC.
- To develop technical abilities for the use of the tool.
- To improve the provision and management of services offered by the telecenters.

It is important to point out that, in the agreement, SEDI/OAS stated as a condition of the project to have an effective impact in the local communities that were going to participate in it.

This condition traced the course of the agreement becoming an objective of the partnership. It was formalized with

<sup>&</sup>lt;sup>12</sup> In the Server, Windows 2000 Server with Active Directory, ISA Server and SQL Server 2000. In the workstations, Windows 2000 Professional or Windows XP, and Office 2000 or Office XP.

It is important to seek local impact, not a project that does not leave behind any know-how.

Miguel Porrúa, SEDI/OAS Coordinator of the e-Government Program in Innovation and Partnerships for Development

two purposes: first, to guarantee the transfer of knowledge to the participating communities; and second, to guarantee the local remuneration, which means, the generation of local income.

### The partners

### Partner's motivations and expectations regarding the partnership

According to Table 1, this partnership consisted of different partners with different motivations, depending on their missions and visions as described in several of their own communications and broadcasts.

Table 1.Partners' motivations according to their own visions and missions

Sectors	Motivations
Private	Microsoft®
Sector	<ul> <li>a. Corporate Social Responsibility<sup>13</sup> (CSR): private sector companies, especially the large multinationals/transnationals such as Microsoft®, have developed strategies for communication and/or participation in the communities where they operate.</li> <li>b. The strategy of Microsoft® is called Corporate Citizenship<sup>14</sup> and has as its mission to be an exemplary citizen where it is doing business. The strategy has four basic action areas: community support, education, habilitation, and support for the labor force and local governments (e-government).</li> </ul>
International	SEDI/OAS
Organisms	<ul> <li>a. OAS Members States have agreed to push for actions to promote the development of their scientific and technological capacities by strengthening research and assimilating technological knowledge.</li> <li>b. OAS/SEDI mission is to professionalize and expand technical cooperation and training programs to help the peoples of the Americas overcome poverty, take advantage of the digital revolution, and further their socioeconomic development.</li> </ul>
NGOs and	ChasquiNet Foundation
CBOs (Community Based Organizations)	<ul> <li>a. ChasquiNet feels that the use of digital technologies goes beyond tools and that basically the reason for technology and its sensible use must be reconsidered. With this understanding, the discourse and practice of the Foundation argues for the appropriation of digital technologies based on the needs and demands of the communities themselves, so that they themselves are the ones to be strengthened - as well as their processes, aided by diverse, updated tools.</li> <li>b. ChasquiNet Foundation believes in working in a network, so that for years it has strengthened the experience of the telecenter network in Latin America and the Caribbean, somos@ telecentros. The idea of community is latent in this network, where the learning circle has been potentiated by the integration of various stakeholders with similar needs and common goals.</li> <li>c. In the same network concept framework, ChasquiNet has prioritized work with the community telecenters of somos@telecentros and in this manner has directed its actions at a real, established collective with a latent concept of collaborative work.</li> </ul>

A contract is like a marriage and you can fill it with words, but it's better to have more flexibility with these types of agreement.

Jorge Durán, SEDI/OAS Coordinator of Municipal Development and Training

In reality, one of the lessons learned in this case was that a partnership cannot be conceived without the participation of all the partners involved in the process, according to the win-win model (World Council on Social Development, 2004).

# Roles and contributions of the partners

According to the interviewees, the biggest innovation produced was in the definition of roles. In fact, prior to establishing any partnership, SEDI/OAS asked ChasquiNet Foundation to invite members of the somos@telecentros network to access the Microsoft® tool. This invitation was not part of any agreement, since it is part of ChasquiNet's usual role in the region. This organization usually disseminates information on competitions, resources, and workshops that may be of interest and benefit to its members.

Thus, the installation of the tool was planned as one of the roles of Microsoft® through its national offices in Latin America and the Caribbean. Each of the Microsoft® offices in the different countries would designate

### Innovations in the concept of marriage

Recently the government of Spain has enacted legislation legalizing same-sex marriages, giving them access to the same rights this legal form grants to all citizens

personnel for installing and training in the use of the tool, once it had the list of beneficiary community telecenters.

When the ground was prepared for the project's next step, Microsoft® underwent some internal changes that momentarily caused it to withdraw from the process. This withdrawal led to uncertainties among the community telecenters chosen to benefit by means of the competition conducted by ChasquiNet through somos@telecentros. The Foundation began to insistently pressure Microsoft® and SEDI/OAS to follow through with the timeline they had proposed to the network's telecenters, since these were already doing the same thing directly with the Foundation. This led to a radical change in the process, and Microsoft® and SEDI/OAS proposed a role in the partnership to ChasquiNet Foundation.

*That's one of the bad things about multilateral organisms - a lot of agreements, but no roles are established.* 

Miguel Porrúa, SEDI/OAS Coordinator of the e-Government Program in Innovation and Partnerships for Development

<sup>&</sup>lt;sup>13</sup> More information on the term at: www.pnud.cl/republi.htm www.pnud.org.co/noticias/noticiasemanaMar252004. htm www.undp.org.ar/boletines/septiembre/Notas/Nota1.htm

http://www.wbcsd.ch/templates/TemplateWBCSD5/layout.asp?MenuID=1

<sup>&</sup>lt;sup>14</sup> http://www.microsoft.com/emea/microsoftEMEAProfile/corporateCitizenship/inTheCommunity/default.mspx

The role proposed to ChasquiNet consisted of installing the tool and training community telecenters in South America in its use. The work in Central America was entrusted to the Honduran Council on Science and Technology (COHCIT), a topic not included in this case study as it is a component still in the works.

Microsoft has learned a different way of approaching reality. Nobody at Microsoft is trained for social work.

> Federico Andrade, General Manager of Microsoft® Ecuador

This innovation led to increased knowhow and better distribution of knowledge among the organizations in the partnership. Thus, the principle of mutual benefit was achieved, and the goal set initially was reached: to leave behind local benefits.

# Types of agreements between the partners

In the partnership under study no tripartite contract was signed. Nevertheless, two types of agreements were achieved: 1) the memorandum of understanding between SEDI/OAS and Microsoft and 2) the verbal agreement between SEDI/OAS, Microsoft, and ChasquiNet Foundation.

The MOU was reached under a basic code of ethics between both institutions, based on the principle of knowledge-sharing, which consisted of the following elements:

• The application code

- The software and licenses required by Microsoft®
- The support for its implementation
- A monetary donation to comply with the objectives proposed by the partnership

#### The marriage

The contract used for legalizing the union of two individuals is known as marriage and is normally used to obtain social and legal approval in the society and culture to which the couple belongs.

For operational purposes, however, ChasquiNet Foundation and Microsoft® did sign a working agreement to start the installation of the DCC Tool for managing telecenters, accompanied by training for the operators in charge.

# Main obstacles found by the partners in the partnership

The partnership under study went through different problems, which we refer to as challenges, to see them in a positive light. These are summarized around the following three points:

- a. Misunderstanding of the partners' roles or tasks.
- b. Differences in *modus operandi* between the different sectors: different work methodologies and accountability; various communication strategies; different languages (referring to concepts that apparently mean the

same thing but which in practice depend on who is proposing them); diverse decision-making styles.

c. Mismatch in compliance with timetables and administrative aspects.

### The marriage goes through its first crisis...

After the first days/months/years of passion end, the couple goes through difficulties and, in some cases, when dialogue doesn't happen in time, the first crisis comes up.

The history of a partnership is written from day to day and difficulties come up daily.

Below is an explanation of these challenges and how they were dealt with.

### a. Misunderstanding of partners' roles

This being an unusual working relationship between the parties, partners tend to assume certain things that are predetermined in other partnerships. Role definition is recommended as vital in order for two or more partners from different sectors to carry out their work cooperatively.

### Assigning roles

The newlyweds arrived back from their honeymoon and went to the apartment they were making payments on. After unpacking their respective suitcases and looking at their fantastic digital photographs, recalling their best moments since getting married, not many minutes went by before they both said at once, "I'm hungry."

### b. Differences in the modus operandi of the organizations

The existing mechanisms within each institution are different, as are their structures. When a relationship is established between two or more partners, there will also be friction between working methods and mechanisms. In this case, these difficulties, according to the interviewees, did not turn into irresolvable problems. On the contrary, they produced the first crisis in the partnership, which served to strengthen it even more.

### I like it in a glass...

After enjoying a delicious meal they had prepared together, they made coffee for after dinner.

When the coffee was served in the porcelain cups they had been given as a wedding gift, one of them said "...in my family we drink coffee in a tall glass, with sugar but no milk ...".

It's not a problem; it's something we have to improve... Some things don't require management or follow-up. I think we can improve some things, like the project status list. This project is different from the ones Microsoft® develops. It's one with a regional, social nature. There's distance between ChasquiNet, the communities where the tool is being installed, and Microsoft in the U.S.

**Rodolfo Fucher,** Regional Community Affairs, Microsoft® Latin America

Unfortunately we didn't have a dedicated person or equipment for supporting the program, which caused delays.

> **Rafael Pérez Colón,** Regional Manager for Government and Education at Microsoft® Latin America

ChasquiNet Foundation noted that their work did not depend solely on the other partners actions. Here they demonstrated their independence and autonomy in the project.

Absolutely not; we continue doing the same things we've been doing up to now, and we haven't changed our way of doing things.

### c. Mismatch in compliance with timetables and administrative aspects

In a partnership, partners tend to have contrasting paces. Many times administrative aspects determine the speed - or lack of speed - of the planned activities. In many cases the process comes to a halt, but not in this particular case. Operational processes continued even though others had been paralyzed. The ideal thing would have been to consider the risks if activities were not carried out in a parallel manner. In reality, much depends on the continuity of actions; many can occur at the same time, others should wait until the others have ended, and still others can continue regardless of whether previous ones have been completed.

### Turn off the darn alarm clock!

After their vacation, the couple returned to their respective jobs/routines. At around 6:00 AM a shrill, penetrating ringing issued insistently from the alarm clock. One of them said, "Turn off the alarm clock..."

Several months went by before the couple's schedules gradually started to match, until finally they were breakfasting together before going off to work.

*María Eileen Delgadillo,* Administrative/Financial Director, ChasquiNet Foundation

### **Conflict Resolution**

Miguel Porrúa's impressions refer to a specific moment in the process when Microsoft® and SEDI/OAS were having dialogue problems which in turn produced delays in the work timetable. From the author's point of view these differences were due to existing differences in the *modus operandi* of the organizations.

There was a moment when almost everything went overboard (...). Once the understanding part was surmounted, implementation was relatively simple, ChasquiNet worked very professionally, documenting each and every one of the installations.

> Jorge Durán, Coordinator of Municipal Development and Education, SEDI/OAS

According to SEDI/OAS, the problem was because Microsoft®, as donor of the tool, had not adjusted its financial system for implementing this type of process.

### The lack of dialogue between the couple

Many couples start their first crisis when dialogue is lost. Communication between the couple is a vital issue for the survival of the marriage; the word divorce becomes a latent idea circulating in the mind of one of the members of the couple.

One of the main challenges seen in the development of a partnership is the absence of a good communication strategy to guarantee the flow of ideas rather than a budding of interpretations.

One of the biggest risks, threats, or opportunities directly affecting the independence of this partnership was that it had to address issues about which there is still great controversy. In the case of this partnership, this element has a global scope with respect to two different tendencies in the use of information: proprietary software versus open-source software<sup>15</sup>.

From Microsoft's point of view, open-source software does not affect the partnership, since it is one more alternative on the market, which itself is open and should offer room for all.

### Marriage divided by soccer...

Some couples are fans of different soccer teams, and even, on some occasions, of rival teams. This generates heady debate and discussions that in some cases maintain communication between the two, providing an excuse for dialogue and illustrating unity in differences. ChasquiNet Foundation's position with respect to this is based on its principle of understanding the "what for" of technology. The organization's vision does not see the tool as its sole priority, but rather directs attention to its sensible use based on the needs and requirements of the communities that are directly affected. Therefore, regardless of who it may be produced by, the tool should address the user's requirements and guarantee as much as possible its technological, political, social and economic sustainability over time.

There are no risks, but benefits (...) establish a strong best practice and a replicable model to follow.

**Rafael Pérez Colón,** Manager, Multilateral Organism Relationships Latin America and the Caribbean, Microsoft®

Thus the potential differences within the partnership have not been an obstacle for reaching its objectives, or at least this is the perception the interviewed partners have with respect to risks.

### Direct beneficiaries' opinions regarding the outcomes of the partnership

The outcomes of the partnership can be measured quantitatively: fifty tools installed for managing telecenters in rural and marginal urban areas. However,

<sup>&</sup>lt;sup>15</sup> La Pastilla Roja. Software Libre y Revolución Digital. Alfredo Romeo, Juantomás García. (2003). Capítulo 2. Conceptos Básicos.

there are other, qualitative, results which are intangible and not easy to express in figures or numbers. It is easier to check the

#### Weaving networks: The creation of

communication spaces could the product of a good partnership. These spaces open the possibilities for more discussion on the results of a partnership's project. Here, in these afterward spaces, goals are reborn that will most certainly find the support of multi-stakeholders.

This training has been very important for all of us here working at Telecentro InfoDes and has been very useful for us, not only in the use of the tool but also for uniting us even more in our work as Latin American telecenters, maintaining us in contact through the mailing list.

> Rocío Ara, New Technology Program, ITDG Cajamarca, Peru

At the end of the day the living situations of people, communities or areas are affected or improved.

> Javier Peralta, Manager, Academic Section of Microsoft® Ecuador

Make the community center a better place, stronger and safer, so that our communities can communicate with the world.

> **Rafael Pérez Colón.** Manager, Multilateral Organism Relationships – Latin America and the Caribbean, Microsoft®

perception the partners have about them. Recapitulating, the concrete results achieved by the action and/or the perception of these by the partners have exceeded the initial expectations either proposed or imagined by them. *Everything flowed beyond my expectations. Absolutely...* 

Miguel Porrúa. Coordinator of SEDI/OAS e-Government Program

The project became equally beneficial for the mission and the interests of each of the partners.

**Rafael Pérez Colón.** Manager, Multilateral Organism Relationships – Latin America and the Caribbean, Microsoft®

The different lessons learned have been discussed throughout the document but, in the words of Rafael Pérez Colón to this respect:

Much to learn. I think ChasquiNet has the best practices to ensure its execution and quality. On our part, we have flexibility, creativity and dedication to making things happen.

> **Rafael Pérez Colón.** Manager, Multilateral Organism Relationships – Latin America and the Caribbean, Microsoft®

### The first child...

The arrival of the couple's first child requires both individuals to make an effort and give the most of themselves as parents. The abilities of both should be balanced for this to happen, but it is important to share the work of caretaking so that the marriage does not suffer from an imbalance of power. The partnership under study has not ended, as tends to happen with some projects. ChasquiNet Foundation decided that the installation of the DCC tool was not sufficient for the project's success. For this reason, it included the components of accompaniment and follow-up. Among other points, it created a Web page with FAQs for the DCC tool and a discussion list on the tool. This list served as a Help Desk to solve problems arising after installation, and to evaluate the use being made of the tool.

According to ChasquiNet Foundation<sup>16</sup>, the basic principles with respect to the use of telecenters as tools for community development should be considered, primarily within the framework of

### Eight's enough...

The couple has to decide, according to their financial capacity, family and other outside factors, the number of children they want to have. According to some writers the couple's ultimate goal is the reproduction of the human species.

technological, political, social and cultural sustainability.

On page 49, there is a table which summarizes the key aspects of the partnership established in the framework of the Windows Tool for the Administration of Community Telecenters Project.

<sup>&</sup>lt;sup>16</sup> Telecentros... ¿Para qué? Lecciones sobre community telecenters en América Latina y El Caribe. Karin Delgadillo, Ricardo Gómez, Klaus Stoll.

### **Opinions of direct beneficiaries of the partnership - from Peru and Ecuador**

**Follow-up:** The most successful social experiences tend to fade away over time when training, for example, is understood as something depending on an agenda of days or weeks. Still worse, when the partners distance themselves from each other before responding to all the questions of the communities involved, the processes tend to decay from a lack of answers. A true partnership requires a commitment in time that does not allow actions to be shelved, but on the contrary stirs them up.

The changes we're going to make to this machine will be the purchase of: 512mb RAM hard drive memory, a new video card NVIDIA, a new board, a UPS, and an AMD processor. I hope you can help us with this information, if the DCC can be used, for example, with Win XP, or if there have to be more updates for the server to work better with some programs. Thank you in advance. Regards,

Martín Zárate Cacho

Responsible Telecentro InfoDes, Cajamarca-Peru

Hello Martín,

I just received your message about the problems you've had. In principle, with more memory the server shouldn't be so slow. In addition, the antivirus I recommend is AVG in the purchased version or free version, which is lighter than secure or MacAfee. You can find it at www.grisoft.com. I also recommend you download the updates for Windows 2003 periodically to minimize the risk of a virus getting into the system.

With respect to the work stations, don't forget that these are Pentium III with 64 to 128 MB of memory, what I'm recommending, and I recommended you update the memory. Don't forget that with Windows XP more memory is needed for better performance. My recommendation is that if you can, install 256 MB of memory in each station in addition to the installation of Windows XP Service Pack 2. You'll get better performance.

I'll be happy to help you with whatever you need, even if it's just through Messenger.

Warm regards,

**Carlos Delgadillo** 

## Summary table of the partnership established in the framework of the Windows Tool for the Management of Community Telecenters Project

Expected development outcomes	Design parameters	Partners	Resources and competencies
Capacity building at the somos@telecentros network for processing and managing through use of	Infrastructure <ul> <li>Updating of obsolete equipment</li> </ul>	Microsoft®	<ul> <li>Project development in conjunction with SEDI/OAS</li> <li>Resources: economic and</li> </ul>
the DCC tool:	Content and applications		material
Technical abilities for using the tool.	Installation of the DCC tool		Vision and mission
Improved processing	Human resources		<ul> <li>Installation of the DCC tool</li> </ul>
and managing of services offered by the	Training of telecenter operators	ChasquiNet Foundation	Training in the DCC tool
telecenters.			Coordination and communication with beneficiary telecenter members of the somos@telecentros network
			Development and maintenance of the virtual help and support network for the DCC tool
	Parameters not included in the design and implemented:	SEDI/OAS	Joint development of the project with Microsoft
	<ul> <li>Content and applications</li> <li>Virtual help and support network for the use of the tool<sup>17</sup></li> </ul>	Community telecenters, members of the somos@ telecentros network	<ul> <li>Feedback for proper installation of the DCC tool.</li> </ul>

<sup>&</sup>lt;sup>17</sup> Distribution list: herramientatc@chasquinet.org

### Summary and conclusions

"You'll forget," said the Queen, "unless you write it down". Alice in Wonderland

"... those poor kids who rebel against their parents and abandon their home on a whim! Nothing good can come of their world, and sooner or later they'll wind up regretting it bitterly..." Jiminey Cricket to Pinocchio

During the interviews, it was determined that a partnership cannot be conceived without the participation of all the partners involved in the process, according to the win-win model.

A partnership must have three basic principles<sup>18</sup>:

- Equity
- Transparency
- Mutual benefit. This benefit can be measured in different terms, depending on the participating partners<sup>19</sup>.

The partnership went beyond the originally stated initiatives. The overall experience must be considered as highly positive or successful. Its success can be synthesized in the following aspects:

#### Success factors

- Transparency
- · Equity
- Integrity
- Independence
- Trust
- · Mutual benefit
- · Search for customized solutions
- Flexibility
- Commitment
- · Transference of know-how

The factors that made the progress difficult in this partnership were minimum and did not turn out to be problems.

The innovations found in this case study are:

Innovation	Partner propitiating the innovation		
Delegating execution to an organization with experience and know-how in working with the social sector	ChasquiNet Foundation		
Going beyond the design parameters and its objectives. The role of ChasquiNet Foundation in this was fundamental, according to information collected throughout the study	ChasquiNet Foundation		

<sup>&</sup>lt;sup>18</sup> "Formación de Alianzas para el Desarrollo Sostenible. Pautas generales." Fundación Interamericana

<sup>&</sup>lt;sup>19</sup> Togetherness: *How Governments, Corporations and NGOs Partner to Support Sustainable Development in Latin America.* Beryl Levinger & Jean McLeod. (2002).

ChasquiNet Foundation feels replicating is not a simple process, since factors within the ecosystem must be taken into account, such as the relationships between the parties involved. This type of research presupposes a change in the paradigm<sup>20</sup> for all known sciences, and in this respect a more multi-disciplinary approach is needed for replicable models of the action, understood from the point of view of carrying out a specific, real project, and not as a process in itself.

ChasquiNet Foundation bases its proposal for an approach to the action on the document *"Carta a la Tía Ofelia: Siete propuestas para un desarrollo equitativo con el uso de las Nuevas TICs"* (2002), in which Ricardo Gómez and Benjamín Casadiego<sup>21</sup> make a series of recommendations in the form of proposals:

- 1. Build concrete solutions
- 2. Move at the pace of the community
- 3. Learn from mistakes

- 4. Localize globalized communication
- 5. Work from the perspective of gender equality
- 6. Speak with your own voice
- 7. Generate new knowledge

For this debate to happen, ChasquiNet feels that it should be enriched by creative practices that enable us to have greater impact on digital technologies projects for regional and global community development.

For this information to be useful in the formation of new partnerships, we recommend clear, timely, transparent dialogue. Take into consideration when setting up a partnership what Niklas Luhmann has suggested, "Note that one cannot see what one cannot see". Or, in other words, in the metaphor of physicist Heinz von Foerster, "If I don't see that I'm blind, I'm blind, but if I see that I'm blind, then I can see".

<sup>&</sup>lt;sup>20</sup> The relationship between science and technology can be studied in more depth in: *The Structure of Scientific Revolutions.* T.S. Kuhn. First edition in English, 1962.

<sup>&</sup>lt;sup>21</sup> Available online at www.idrc.ca/pan

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### **Appendixes**

E-mail sent on July 04, 2003, by María de Lourdes Acosta Cruz, ChasquiNet Foundation Communication Team, to the general discussion list of the somos@telecentros network to announce an invitation to compete for the DCC tool, as originally designed.

### somos@telecentros Network:

This is to notify you that the OAS Executive Secretary for Integral Development (SEDI) (SEDI/OAS) recently signed an agreement with Microsoft whereby a software tool for administering telecenters can be offered to us at no cost to you.

It is important to mention that, although said tool can be used by any type of telecenter, it was actually designed for telecenters charging for their services. Also, for the purpose of not excluding or favoring any specific institution, this is only one of various products that IACD will be offering in the near future from diverse organizations and/or companies.

By means of the agreement with Microsoft, the Agency can facilitate an application of this very useful tool for the management and administration of your telecenters. This tool tabulates times and costs as well as machines that are down and off line. The tool is free (including application, software, training and installation costs, as well as server and PC licenses).

Instrumentation is by means of an agreement between the IACD and ChasquiNet of Ecuador, as coordinator of the TELELAC II project, and would include close coordination with the staff of Microsoft in each country, since they would be the ones who would install and train the personnel of the telecenters chosen.

It is important to point out that evidently this tool will not work with Linux servers, but with respect to licenses for operating systems and work applications<sup>22</sup>, the following software would be installed at no cost whatsoever so that the telecenter management tool can be run:

On the server:

- Windows 2000 Server with Active Directory
- ISA Server
- SQL Server 2000

<sup>&</sup>lt;sup>22</sup> The software licenses and the tool are for an indefinite period, but the beneficiary will have the option of setting up an individual maintenance and/or updating contract with Microsoft.

At the work stations:

- · Windows 2000 Professional or Windows XP
- Office 2000 or Office XP

For the purpose of providing information on this tool to those who may be interested, and with the authorization of Microsoft, the IACD has placed the informative documents and demo (in flash) of the tool in its own webpage.

To see it, you must:

- 1. go to the Agency's page at www.oeainnovacionesyalianzas.org
- 2. select a language
- 3. go to members only
- 4. the temporary log in and password for you are: "guest" and "guest," respectively
- 5. go to the right to the "mis salones" section
- 6. select "Soluciones e-government Microsoft"
- 7. on the left there are two options: "Demos" and "Información (Presentación y Documento Técnico)." The flash demo for telecenters is in "Demo Centros Comunitarios"
- 8. it is recommended you see "Información (Presentación y Documentos técnicos)" before going to the demo

Since the IACD is only authorized to offer a limited number of applications of this tool, interested telecenters should follow the competition guidelines that will be sent to you in the next few minutes by ChasquiNet Foundation from Ecuador, who will act as the channel for this process.

Sincerely,

*Jorge E. Durán* Senior Advisor to the General Director Inter-American Agency for Cooperation and Development Organization of American States Technical Report on Installation and Training in the DCC Tool in Telecenters in Venezuela and Colombia prepared by Carlos Delgadillo, ChasquiNet Foundation Technical Team, on December 2003. It includes a description of the software and hardware, actions taken and problems encountered. All installations of the DCC tool by ChasquiNet Foundation were accompanied by a report similar to this one.

In the first week of December of this year, ChasquiNet proceeded with installation of the Microsoft DCC Telecenter Administration Tool and its respective training in the following telecenters:

- Paulo Freire Valera, Venezuela
- Aguablanca Cali, Colombia

#### 1. Telecentro Paulo Freire - Valera - Venezuela

This telecenter is located at the entrance to the industrial zone in the city of Valera, on Avenida José Faure and Eje Vial, Sector San Luis.

The Internet connection is by means of a dial-up line with slow response, since the telecenter has 9 work stations plus 1 server.

The telecenter is managed by Mr. Andrés José Hoyos and has two technicians, Xiomara Montilla and Yessenia Laguna.

#### Technical situation of the telecenter:

Hardware:

- 1. Compaq Proliant with Pentium III processor of 1GHZ and 18 GB of USCSI disk and 128 MB in Ram (server)
- 9 HP Computers with Pentium III processors of 1 GHZ, 20 GB hard disks, 128 MB in RAM, 15" monitors.

All the computers have voltage regulators.

The local network configuration doesn't have structured cabling and actually meets category 3 standards for its network. They are connected to a 16-port 3Com Hub and an 8-port switch, so they have large packet losses.

#### Problems encountered:

*Servers:* In the installation of Windows 2003 Server, a problem was detected due to a lack of RAM memory. The problems of error messages in the tool software were solved with the addition of memory.

*Work stations:* The telecenter has 9 work stations in which Windows XP Professional and Office 2003 Standard were installed. The problems encountered were purely software problems. f-secure 5.54

was installed and the stations did not permit access and control of the tool. It was then uninstalled and an AVG free edition downloaded from the Internet was installed. With the installation of the Windows XP Service Pack 2 the firewalls of each station had to be configured. It was also recommended that 128 MB of memory be bought for each station so that they would have 256 MB.

*Installation of services:* The services of Active Directory, Internet Information Server, FTP, SMTP, and POP3 were installed in the server. There were no problems in the installation of these services. In the Active Directory configuration the corresponding security policies were applied for the tool's proper functioning.

*Training:* There were no problems in training on handling the tool, since the personnel had experience in installation of operating systems. The training method used was totally practical. Training was also provided on how the TCP-IP protocol set and the DNS system work.

#### 2. Telecentro Aguablanca - Valle del Cauca - Colombia

This telecenter is located in the city of Cali, in Colombia, in the Eduardo Santos District, Diagonal 28d with transversal 33e-14.

The Internet connection is by means of radio linkage with the Universidad Autónoma del Occidente. No major communication problems were seen in the use of the Internet.

The telecenter's coordinating operators are Aura Helena Plaza and Derlly Pantoja, under the supervision of the Vice Rector of Research and Technological Development of the aforementioned university. The Research on Communication for Development Group, directed by Mónica Palacios Echeverri, is in charge of supervision.

#### Technical situation of the telecenter:

#### Hardware

- 1. Two 2.8 GHZ IBM Pentium IV servers with 40 GB hard drives and 256 MB of memory.
- 2. The work stations have an extremely varied hardware configuration and are as follows:
- Two 2.8 GHZ IBM Pentium IV computers with 40 GB hard drives and 256 MB of memory.
- Two Compaq Presario 7473 computers with 10 GB hard drives and 64 MB in RAM memory and 533 MHZ AMD processors.
- One Compaq Presario 4730 computer with a 1.8 GHZ Pentium IV processor, a 40 GB hard drive and 128 MB in RAM memory.
- Two 233 MHZ DTK Pentium II computers with 10 GB hard drives and 128 MB in memory.

The other computers are Pentium I from 133 MHZ to 233 MHZ with 32 and 64 MB of memory, which do not meet the minimum installation requirements.

All the computers are connected to a 1.5 KVA UPS used to stabilize electrical energy.

The local network configuration does not have structured cabling and actually meets category 3 standards for its network. They are connected to a 16-port switch.

#### **Problems encountered:**

Servers: No problems were encountered in the installation of Windows Server 2003.

*Work stations:* The telecenter has 6 work stations where Windows XP Professional and Office 2003 Standard were installed. The problems detected were basically from lack of memory. It was recommended that more RAM memory be installed in all the computers.

*Installation of services:* The services of Active Directory, Internet Information Server, FTP, SMTP, POP3 and the DDC tool were installed in the server. There were no problems in the installation of these services.

*Training:* There were no problems in training since the personnel were alert and any questions were resolved promptly. The training method used was totally practical. In addition, the persons were trained in the functioning of TCP-IP protocols and the DNS system.

E-mail sent on July 21, 2004, by Rocío Ara Abanto of Infodes Telecenter, Peru, to the mailing lists for discussion of the tool (herramientatc@tele-centros.org) and to the general somos@telecentros network forum (telecentros@telecentros.org) for the purpose of informing about the opinions of one of the telecenter operators involved in the project.

	Original Message
Subject:	[Herramientatc] Installation Telecentro InfoDes
Date:	Wed, 21 Jul 2004 17:59:10 -0500
From:	Rocio Ara Abanto <rocio.ara@itdg.org.pe></rocio.ara@itdg.org.pe>
Reply-To:	herramientatc@chasquinet.org
To:	herramientatc@chasquinet.org, María de Lourdes Acosta Cruz
	<lacosta@chasquinet.net>, telecenters@tele-centros.org</lacosta@chasquinet.net>
References:	<1090429524.27570@chasquinet.org>
	<40FEC1D2.8010901@chasquinet.net>

#### Dear friends,

After catching up with everything left pending after the installation, we are writing to comment on our experience.

Work on the installation started in a very anecdotal manner, since we were expecting Carlos at midday and he surprised us by arriving much earlier. He was here at 8 in the morning on Saturday, so we had to rush to meet him as soon as possible and start the work. Luckily some days earlier our telecenter had already been conditioned for his visit, which allowed for coordinated progress on the work.

Those were four days of intense labor, starting Saturday at 8 am and finishing Tuesday at 7 pm. First of all I want to thank Carlos, who was kind enough to give us his full support in the activities, questions, recommendations and many other things that were not in the training. One of these, by way of mention, was that on Saturday a machine that didn't belong to Telecentro InfoDes developed problems; Carlos checked it out and found a poor installation, advising us to reconfigure it to improve its performance. After this he went with us to the equipment supplier to explain to the local technicians the problem he had found, and he wound up giving them some classes on configuration and networks.

Just as at Llampanet we also had some equipment needs here. The server needed another card and network cable for the installation, and in the end it was recommended that we purchase memory and video cards - since ours was giving us some problems - and a larger capacity hard drive for the future. We also had a bit of a problem with the readers in the work stations because not all of them were working well.

For every new little problem in the installation, Carlos had a good solution, and with all the good intentions, patience and calm in the world he proceeded to explain what was happening and the steps we had to take. The advice he gave us for technical support and his many installation and computer tricks have been very useful to us - in addition to the talks on telecenter administration, management and service provision that he so kindly had with us.

For his part, he was very impressed with the work being done with InfoCentros (rural telecenters) in the SIRU (*Sistema de Información Rural Urbano,* or Urban Rural Information System) Project. As with Telecentro InfoDes, the project is part of the ITDG New Technology Program. We provide each other mutual support in achieving our common objectives - such as "humanizing gobalized communication," a goal we share with ChasquiNet.

This training has been very important for all of us here at Telecentro InfoDes, and it has been very useful for us, not only in the use of the tool but also in uniting us even more in our work as Latin American telecenters, maintaining us in contact through the mailing list.

Until soon, and I wish you success in your next installations of the tool.

A big hug,

Rocio Ara New Technology Program ITDG Cajamarca http://www.itdg.org.pe http://www.infodes.org.pe

Message cited by María de Lourdes Acosta Cruz <lacosta@chasquinet.net>:

> Thanks, Carlitos, for your report. We are always happy to hear from you.

>

> We would like our friends at the Infodes telecenter to tell us about their experience, and above all about all the problems they may have encountered and the solutions they found when installing the tool and during training. This way, our friends in Argentina, Bolivia, Colombia and Venezuela can also prepare.

>

> A big hug,

>

> Lula

>

> Alan Carlos Delgadillo Poepsel wrote:

>

> >Dear friends,

> >

> >With respect to the Infodes telecenter of ITDG, which has already been installed, I would like to thank the work team headed by Rocio Ara for the four days I spent there installing and training in the tool.

> >

> >To our friends at the Centro Tecnológico Comunitario La Cumbre, I will be arriving tomorrow on the Aerolíneas Argentinas flight at around noon. Please confirm for me by e-mail, if you would, my hotel reservation and the taxi to take me to your telecenter.

> >

> >Warm regards,

> >

> >

> >Carlos Delgadillo P.

> > ChasquiNet Foundation

### Costa Rican National Program of Educational Informatics

By María Eugenia Bujanda, in collaboration with Ricardo Castro Omar Dengo Foundation

### Abstract

The integration of technology into Costa Rican public schools took shape in 1987 in the form of the National Programme of Educational Informatics. The project was conceived in a moment of growing concern for the technology gap. The government and other leading political, social and economical actors saw the introduction of technologies in schools as one of the most strategic tools to lead the country into a new, modern, technologybased economy. Since its inception, the Costa Rican Program of Educational Informatics has been developed with the support of actors from multiple sectors that have made it possible to reach and even exceed the objectives for which it was conceived. At the core of these partnerships, there is the collaboration established between the Omar Dengo Foundation, a private non-profit entity, and the Ministry of Public Education. Other organizations from the corporate, academic and international cooperation sector joined the initiative and made significant contributions without which the project would not have been able to continue. Among them, can be mentioned the United States Agency for International Development (USAID), IBM, the Media Lab of the Massachussets Institute of Technology, several Costa Rican public universities and the local communities. The partnership has faced several challenges such as the political changes and transitions between different government administrations and problems regarding project ownership. Among the key success factors can be mentioned the vision, leadership and commitment of the lead partners; the emphasis made on technical criteria, efficiency, accountability and transparency; and the recognition of mutual need

### Introduction

The National Program of Educational Informatics (hereinafter the Program) is an initiative promoted by the Costa Rican government along with the Ministry of Public Education (MPE) and Omar Dengo Foundation (ODF). Since its beginning in 1988, the Program has aimed at contributing to the improvement of the quality of teaching and the betterment of Costa Rican society through the development and implementation of Educational Informatics in the public education system.

The pedagogical foundation of the Program is based on the following issues: first, the use of computers to foster the development of higher-order cognitive processes; and, second, the enrichment of the school curricula creating exploration and meaningful construction of knowledge through projects linked with the official study programs.

Throughout 18 years of uninterrupted work, the Program has benefited more than 1.5 million primary and secondary education students and teachers. Table 1 shows the current scope of the Program in terms of coverage (number of centers and students benefited) in the different areas of the country.

Since its inception, the Program has developed with the support of stakeholders from multiple sectors that have made it possible to reach and even exceed the objectives for which it was conceived. Particularly interesting has been the collaboration generated between ODF, a private non-profit entity, and the Ministry of Public Education (MPE), a public agency. This partnership between the private, non-profit sector and the pubic sector has been joined, at different times, other organizations from the corporate, academic, and international cooperation sector. This case study details its history and operation and relates the traits that have made it successful.

	Centers benefited			Students benefited			Percentage of students benefited		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Educational Informatics Program in Preschool and Primary School	310	355	665	81 391	235 097	316 488	29,8	73,6	53,4
Educational Informatics in Secondary School	80	117	197	31 789	101 129	132 918	46,6	81,5	69,1

Table 1.Coverage Data of the MPE-FOD National Program of Educational Informatics,<br/>according to educational level and area23 (To June 22, 2006)

Source: PRONIE Statistical Information and Coverage Report for Preschool, I, II, and III Cycles. June 2006. Research Department. Omar Dengo Foundation.

<sup>23</sup> The definition of a zone category was adopted from the MPE Department of Statistics which specifies that a district is considered to be urban if more than 50% of the population is located in urban areas and rural if less than 50% of the population is located in urban areas.

# The activity of the multistakeholder partnership

### Partnership history

The idea first developed after a speech given by then presidential candidate Oscar Arias Sánchez, during the 1985/1986 presidential campaign, in which he stated that one of his objectives was for there to be a computer in every school. This idea grew out of the concern for the technological gap which the political, academic, and social leaders of the country began to face.

In November, 1986, after Oscar Arias became president, he requested the Presidential Program for Support in Decision-Making<sup>24</sup>, headed by economist Carlos Espinach, to take the necessary steps for his campaign promise to become a reality. In order to achieve this, a technical commission was created to begin to mold the idea of introducing computers into public schools. The group was initially comprised of members of the Presidential Informatics Commission and several designated specialists bv Francisco Antonio Pacheco, Minister of Education, who immediately supported the idea.

The commission members analyzed different models and experiences for introducing technology in the educational system and established basic guidelines for the Costa Rican project. One determination was to envision Educational Informatics as an instrument for supporting cognitive and social skills needed to impulse the development of the country. The other decision was that the project had to go through an implementation process composed of different stages, but with the final goal of obtaining national coverage. The commission's research led to the realization that the company that would ultimately be awarded the purchase of the computers had to offer a comprehensive solution that would not only include the equipment, but also a proposae about how it should be used in the classroom.

Below is a detail of the steps taken for the creation of the project.

### a) Creation of Omar Dengo Foundation

One of the first ideas of the government team headed by Carlos Espinach and Francisco Antonio Pacheco was the creation of a foundation for providing operational support to the project. The reasons for this were, in the first place, financial and administrative, since a foundation was able to resolve issues more quickly and thereby avoid the bureaucratic red tape that characterizes the government, and helped in obtaining external resources. It was also believed that a structure outside of MPE would prevent the project from turning into a political issue: "The government of Costa Rica created a foundation to oversee the project- an unusual case of a government having the wit to protect a project from its own bureaucracy!" (Papert, 1993:75-76).

On June 19, 1987, ODF was created. In order to select the founding group, President Arias convened 22 intellectuals, university professors, economists and business administrators. The goal was to bring together people who could provide

<sup>&</sup>lt;sup>24</sup> The Program for Support to Decision-Making was created with support from UNDP. Its main objective was to impulse development projects promoted by President Arias.

support at an academic and financial sustainability level.

Another criterion that guided the founding group was that its members included representatives from the main political parties. The same criterion was applied in forming the board of directors of the institution.

Francisco Antonio Pacheco, Minister of Education, was chosen as President of the Board of Directors, Carlos Espinach assumed the Vice Presidency.

*In order to safeguard the project from political* instability and for it to be characterized by technical criteria and not by political interests, it was important to think of a foundation that would support the initiative, that would allow external resources to be received, and that could also provide permanence. I stressed the importance of it being a project that could have continuity. It seems to me that for this reason the idea of establishing a foundation was quickly accepted. When one is at the Ministry, one realizes that there are many projects that face obstacles from important employees who will still be there when you aren't. On the other hand, one realizes that people in the opposition party have an excessively critical attitude regarding anything one does. From the start, there is a feeling of uneasiness about the great effort being done and the future of such effort.

Francisco Antonio Pacheco, Minister of Education (1986-1990) and ODF Founding Member

After it was decided to create a foundation to lead and execute the project, Omar Dengo Foundation assumed the leadership of the initiative. This foundation has been the main promoter of the partnerships that the Program has entered into since the beginning. Despite its original ties with the government and the close relationship it has had since the start with MPE, ODF soon acquired an autonomous and well defined institutionality. Strengthening this institutionality allowed ODF a more technical performance in order to consolidate the Program.

### b) Private tender for proposals regarding the introduction of Educational Informatics in Costa Rican public schools

In June 1987, the government of Costa Rica and ODF organized a private tender in order to find a company that could provide computers as well as a proposal for introducing computers into the public school system, based on the guidelines established by the technical commission.

Fourteen private companies participated in the tender. Each was required to present a proposal that was coherent with the objectives of the Costa Rican project, a consistent theoretical framework, have backing from academic research as well as the support of academic institutions.

The pedagogical dimension of the proposals prevailed over the economic one. Some of the guidelines applied in the decision-making process were the following (Fonseca, 1991):

- The computer must be used as a tool available to students and teachers.
- The approach should not only include learning to operate the computer or use it for repetitive exercises, but as a tool to develop the students' creativity and intelligence.

• Emphasis must be made on training the teacher in the methodology to be used rather than on the computer hardware and software.

Regarding the equipment, the most recent technology and compatibility with other types of commercial applications were requested. Another important requirement was the company's capacity to provide technical support on a national scope. With regards to the software, its quality was evaluated as well as its capacity to enrich the current school curriculum, and the possibilities for the company to produce or adapt programs to the culture and needs of the Costa Rican educational system (Fonseca, 1991).

Five (5) of the fourteen (14) companies were pre-selected; they appear in Table 3.

Table 3.Companies pre-selected for the first stage of the private tender for<br/>introducing Educational Informatics in the public school sector

Company	Content of the proposal
IBM	<ul> <li>Equipment: PS-2</li> <li>Educational Reference: Seymour Papert Constructionism (MIT Media Lab)</li> <li>Software: Logo Writer, educational games, integrated system for teaching mathematics</li> <li>Creation of a Latin American training and research center</li> </ul>
Unisys	<ul> <li>Equipment: ICON II microcomputers</li> <li>Educational Reference: Integrated educational system developed for the province of Ontario in Canada</li> <li>Software: Lessonware type programs covering a large area of shool subjects</li> <li>Creation of a software production center</li> </ul>
Degem System	<ul> <li>Equipment: Central minicomputer with different terminals</li> <li>Educational Reference: Israeli proposal for learning shool subjects</li> <li>Software: Computer assisted educational programs, system for assessing student progress</li> </ul>
Equipos digitales	<ul> <li>Equipment: Tandy Corporation</li> <li>Educational Reference: Learning of shool subjects</li> <li>Software: Programs allowing students to advance in the curriculum according to their own pace, with a system for tracking their progress</li> </ul>
United Schools of America	<ul> <li>Equipment: supplied by Intertech Associates Corporation</li> <li>Educational Reference: Proposal developed by the Dade County, Florida Public School System</li> <li>Teacher training headed by professors from Miami Dade Community College</li> </ul>

Source: Fonseca, 1991.

In October 1987, visits were made to the United States and Canada to observe the experiences *in situ* proposed by three preselected companies: the project developed by Dade County and the University of Florida; the Seymour Papert and his Learning and Epistemology Group model as well as its application in a Boston school and the model developed in Ontario, Canada.

The tender ended in 1987 with the project being awarded to IBM Costa Rica, S.A. Its proposal, which included the use of the Logo Language and Papert genetic epistemology, was the most coherent with the guidelines and definitions of the technical commission and the ODF board of directors.

The decision was made to hire IBM, and this was very fortunate due to the quality of their equipment, ease in dealing with such a universal and powerful company with proven efficiency.

> *Víctor Buján,* Advisor to the Minister of Education (1986-1990), Member of the Technical Commission and ODF Founding Member

In addition, IBM offered important benefits for buying the equipment in addition to having the Papert MIT group train the teachers and establishing a Latin American Informatics Education Center for research and training.

### c) Raising funds for the project

In a parallel manner to the tender process, the technical commission set out to raise funds for the project. In November 1987, a formal financing request to purchase computer equipment for the Program was presented to the United States Agency for International Development (USAID).

The document that was elaborated to support the proposal argued that this initiative would produce qualitative changes in the educational system and the productive structure of the country.

USAID provided the amount of US \$7,700,000 for purchasing computer equipment, divided in three tracts: US \$2,700,000 in 1988; US \$2,200,000 in 1989; and US \$2,800,000 in 1990.

### d) Participation of other partners in the partnership

In addition to the first partnership established between MPE and ODF which has been maintained over time as the central force of the project, other entities joined the initiative. Many of them still remain and although some of them are no longer in the partnership, they made significant contributions without which the project would not have been able to continue.

Among the noteworthy institutions in the academic sector that supported the project, it is important to mention the Massachusetts Institute of Technology (MIT) Media Lab, which established a link with the Program that transcended the original contact with IBM. A relationship with Seymour Papert's team continues to be maintained, and they still are a source for common projects that enrich the Program's pedagogical proposal.

Other academic institutions that joined the MPE-ODF partnership were the main Costa Rican public universities. From its inception, the Minister of Education showed special interest in involving them in the project and negotiated several collaboration agreements. Thus, an important number of college professors trained and followed up the Program's teachers. Universidad de Costa Rica (UCR), for instance, assigned six professionals to the Program for three years to support the teaching and research activities. Universidad Nacional (UNA) contributed with a part-time teacher for two years. Unfortunately, once the term of the first agreements ended, it was impossible to continue the collaboration. In the case of the UCR, the main motive was the lack of interest from the university authorities that succeeded the authorities that had originally been involved with the partnership.

This occurred during my administration as [Research] Vice President of the University. After my term ended, the person that succeeded me did not understand and did not follow the process that was supposed to occur within the institution so that the people trained at ODF could become leaders of a process within the University. The internal process that was needed to create a structure and programs within the University parallel to the Foundation processes did not occur. That was a terrible mistake.

*Gabriel Macaya*, former President, University of Costa Rica (1982-1988) and member of the ODF Board of Directors

# Project implementation context

First, it is important to stress the need felt at the time to prepare for the country's transition into a modern economy. At the end of the eighties and beginning of the nineties, the industrial production models began to transform into new models which emphasized the development of intellectual skills, flexibility and creativity. Given this context, the introduction of technologies in schools was visualized as a process that could lead the country to shift from mainly agricultural models towards the information society. Educational informatics was conceived as an instrument for providing citizens with the attitudes and skills needed for this transition (Fonseca, 1991).

Second, another characteristic of the national context at the time was the crisis in the educational system. When the Program began, Costa Rican education was declared as being in a crisis and in need of urgent solutions. Since its beginning, the Program was seen as a powerful tool for innovation and regeneration of the educational system.

A third contextual element that was a determining factor for executing the project was that Costa Rica was a country that was highly favored by United States policies for international development. This circumstance made the resource mobilization process for launching the Program relatively easy. In the convulsed Central American scenario at the end of the eighties, a country such as Costa Rica whose motto was to "fight for peace" and that strove for educating its children and youth was very attractive to the United States.

With regards to the issue of educational informatics, it is necessary to point out that at the time there were few experiences regarding the introduction of technology in education, especially in developing countries.

At first, the Costa Rican initiative met with skepticism even from USAID which, up to this moment, had only financed more At that time the war in Nicaragua was just ending. As a result, Costa Rica received a daily investment of nearly one million dollars a day for four years which more than supported the budget. This was the level of expense that USAID provided trying to sustain the country which had fallen into bankruptcy after the oil crisis at the end of the 80s and whose neighbor was at war and which faced the a risk of the communist regime expansion in the area.

> Carlos Espinach, Head of the Presidential Program for Decision-Making Support (1986-1990) and Founding ODF member

basic projects. It also clashed with various sectors of Costa Rican society which stated that the country required attending more urgent needs.

Now it seems to be the most usual thing in the world to place technology in learning centers. But then, it was practically a revolutionary project. When ODF intended to train teachers in the use of multimedial technologies, previously to changing the technological platform in 1997, and it required this kind of equipment in order to execute the training, we discovered that there were only 100 multimedial machines in the country, when ODF was importing 6,000 machines to be installed in public schools and high schools to be used by children and youth.

Clotilde Fonseca, ODF Founding Member and Executive Director (1987-1991; 1992-1994; 1996-)

One of the most important elements in the history of the Program is comprised by the debates regarding which was the most appropriate Educational Informatics model. There were members of the technical commission that abandoned the project due to disagreement with the chosen model, Papert's genetic constructionism.

At the time the Program was initiated, there was no unanimity among academicians, neither at the regional nor at the international level, about the optimal approach for a project of this nature and scope. Supporters of computer-assisted learning advocated that Papert's model lacked sufficient empirical support and feared placing such an important national project in the hands of a personal proposal. They considered that a computer-assisted teaching model, such as that proposed by Degem Systems would allow improving and homogenizing the quality of teaching in the various areas of the country.

However, the criterion that prevailed was to take advantage of the computer potential to encourage logical-mathematical thinking, problem-solving skills, and creativity: "Within the foundation the discussion centered on the role of teachers. One group argued that the mode of use should be as easy on the theacher as possible. Many of the teachers in the rural districts had very little experience with technology and no formal education in any thing technical. These teachers, it was argued, would be excluded by any mode of using the computers that required technical skills. Thus, this group argued for using CAI- (Computer Assisted Instruction) software, and had this side won the contract would probably have gone to a company offering the kind of ("teacher-proof") turnkey system where the computer is switched on and the teacher does not even have to load a diskette everything is automatically done under central control. The argument of the other group, though they did not guide put it in these words, was to make it as hard as possible for the teachers" (Papert, 1993:76).

### Partnership objectives

The idea of introducing computers in schools arose from a collective vision for the socioeconomic development of the country. Although its main objective was educational, the goal was to also affect the social and productive context in the medium and long terms. Closing the existing technological gap was a main concern, and it was recognized, from the beginning that this gap had to be fought not only in its international manifestations, i.e., between developing countries and industrialized countries, but also in its national manifestations, i.e., between the different sectors of the country and among generations (Fonseca, 1991).

In this sense, the Program objectives coincided with the objectives of the Ministry

of Education, the objectives of the National Development Program, and the objectives of the Program for Structural Adjustment that the government promoted at the time. The purpose of the Program was to expand the access base to new educational and training opportunities in order to strengthen the national democracy. This has allowed segments of the population that would otherwise have been marginalized to have access to the benefits of educational informatics and advanced computer technology.

Finally, the creation of this project also aimed at contributing to the modernization of Costa Rican education by introducing not only computers but also innovative pedagogical approaches.

These goals led to proposing the following specific educational objectives:

### Table 3.Objectives of the MPE-ODF National Program of Educational Informatics

- To contribute to improving the quality of teaching.
- To familiarize Costa Rican population with informatics and its applications.
- To estimulate the education life of the country and a renewal process within it.
- To contribuye to developing new generations of better prepared Costa Ricans for the future.
- To contribute to reducing the technological gap that exists between our countries and other more developed countries, among diverse sectors within the country (rural areas versus urban areas) and between generations of Costa Ricans.
- Incorporate each community's different social sectors to the change dynamic generated by the use of computers as productivity tools.
- To contribuye to consolidating the basis and fostering the development of an educational informatics industry in Costa Rica.
- To democratize the access to science and technology and to a cuality education.
- To promote the development of cognitive processes and stimulate the creativity and logical thinking.

Considering that most of the educational informatics experiences throughout the world were located in secondary school, one of the most innovative decisions made by Program heads was to begin at primary school. This decision responded to the objective of facilitating new generations with the creative and significant use of digital technologies from an early age<sup>25</sup>.

In addition to the initial bet for primary education, the objective of geographic democratization was present since the onset: to reach many areas within the national territory in order to surpass the traditional approach of a central nucleus that generates development and extends outwards toward the periphery. The purpose was to take educational informatics to the largest number of children as possible, especially those who would otherwise have no contact with technology.

On the other hand, it was also clear that the pedagogical focus chosen would require a strong investment in teacher training. Consequently, one of the main objectives of the partnership was to have teachers create new skills and knowledge in educational informatics. To do so, it was necessary to design a continuous in-service training program with a strong guidance and follow-up component. Informatics teachers assigned to the Program undergo a long training process in order to acquire the computer skills until they are able to develop complex and sophisticated pedagogical competencies. The structure of this system includes a national network of advisors who visit the schools to provide support and follow-up to the teachers in the Program.

Along with training and follow-up, another element that was foreseen from the beginning was the development of a research and internal production process that would provide feedback to the educational component of the Program and would contribute to its enrichment and advancement.

### Resource mobilization strategy

The Program resource mobilization strategy has included several elements which are explained below.

### a) Search of funds from international organisms

For the first purchase of equipment, ODF requested the support of USAID, which contributed with an important amount of money. This cooperation was negotiated thanks to the support of the government authorities. USAID donation was provided through a memorandum of understanding signed by ODF, MPE, the Government of Costa Rica, and USAID.

The Inter-American Development Bank (IDB) also made a significant contribution with the purpose of having the experience in Costa Rica serve as an illustrative experience for other nations. In 1991, a technical cooperation agreement was signed with IDB to create an academic training plan addressed at strengthening the pedagogic action of the Program. The agreement included awarding fourteen scholarships for obtaining a Masters Degree in Educational Informatics at the University of Hartford in the United States.

<sup>&</sup>lt;sup>25</sup> In 1985, a project had started in several high schools under the supervision of MPE. This initiative continued operating and growing within MPE until 2001 when Guillermo Vargas, Minister of Education at the time, asked ODF to take charge of it.

In addition, UNDP hired Costa Rican consultants who assumed support roles for the Program.

### b) Creation of a capital fund

The money provided by USAID was destined to the purchase of the first computer equipment. It had not been planned to use the money for the operative costs of the Program. For this reason, at the end of the first year, ODF requested USAID to change the destination of part of the funds that were provided in order to create a capital fund for ODF's operations. USAID accepted that part of their funds be destined to that end. This caused a change in the plans regarding the number of laboratories installed during the second year but contributed to arranging the Program management on solid and realistic bases.

On the other hand in 1989, ODF participated in the External Debt Conversion Program with the Central Bank of Costa Rica. This operation consisted of purchasing debt at discount prices and changing it into certificates and implied a considerable increase in ODF's capital fund. As a result, it was an essential strategy for strengthening the initiative. Unfortunately this is related to an opportunity that resulted from a particular national situation that does not frequently occur.

### c) Participation of the Costa Rican State

Since the beginning of the project, MPE has paid the salaries of the teachers and advisors who work for the Program. It has also contributed with facilities for the Program to operate and telecommunications services for educational institutions.

There was an opportunity for changing the Costa Rican debt at twenty cents per dollar which we wanted to take advantage of. There was a negotiation effort in which ODF, through the International Bank of Costa Rica, which was the only connection that Costa Rica had to the world's financial system, to exchange the external debt at a preferential share rate. We multiplied our capital significantly, generating strong seed capital for ODF which was based on purchasing the external debt at a discount rate and exchanging it for certificates in which the funds would accrue interests. The purpose of this was to allow us to pay for the Program's administrative and financial structure and the support that ODF provided it with. These opportunities do not occur often, only when the structure of the financial sustem allows it.

> Carlos Espinach, Head of the Presidential Program for Decision-Making Support (1986-1990) and ODF Founding Member

Given the Program's growth, from its 10th year of execution onwards, ODF began to receive resources from the Costa Rican government in order to finance equipment acquisition and some logistic and administrative activities that were needed to increase the number of computer laboratories. These contributions consisted of transfers of resources from the national budget in order to acquire computer equipment to replace damaged or outdated computers and to expand the Program coverage by installing new laboratories. Thus, the Program has had access not only to ODF's capital fund, but also to the support from the MPE budget.
### d) More involvement from the company that provided the equipment

The interest that the project awakened in equipment supply companies, led IBM of Costa Rica which was awarded first place in the private tender, to offer more than computers for provisioning the labs. Among other things, it offered to cover the training costs for the first team of educators at MIT, to create a Latin American Educational Informatics Center for Research and Development as well as significant benefits for purchasing equipment.

### e) Search for partnerships with national companies

Costa Rican public universities were contacted in order for them to become involved in the project. As a result, UCR and UNA loaned some of their proffessionals during the first few years of the initiative.

#### f) Contributions from the communities

Another strategic decision for executing the Program was the involvement of the local communities where computer labs have been installed in their construction, conditioning, and maintenance. The community participation with the necessary resources to establish the computer labs has been essential since the beginning of the Program.

School boards, parents, and community organizations provide the classroom, furniture, electric installation, security measures, and other necessary elements for the operation of the labs. On the other hand, ODF developed a community program by which the communities may use the labor after school hours to teach computer courses. I said, if it is true that we have such a nice program for people, then, the communities and parents should contribute something. The community should build the classroom, for instance. It was very successful because the community knew that if they organized themselves quickly, they would have their lab sooner.

> Carlos Espinach, Head of the Presidential Program for Decision-Making Support (1986-1990) and ODF Founding Member

### g) Fund raising with Costa Rican companies

Intensive campaigns directed at Costa Rican companies attempted to obtain financing to support the economic content of the Program's management structure.

At the beginning, a telemarketing program was implemented. Personal contacts with Costa Rican executives were promoted in order to obtain larger corporate resources.

As a result of these efforts, several public and private companies provided specific support to the Program. For instance, public companies, such as Instituto Costarricense de Electricidad (ICE) and Radiográfica Costarricense SA (RACSA) made substantial contributions to the project. ICE donated 210 phone lines to guarantee telematics services at the participating institutions. RACSA donated 210 accesses to the RACSACOM service to guarantee the telematics services at the participating institutions.

In the banking sector, several important connections have been important for the life of the Program. In addition to the initiative of the Central Bank that allowed ODF to participate in 1989 in the external debt conversion program, Banco de Costa Rica offered favorable advantages to the Program, such as the approval of a line of credit for the teachers in charge of the computer labs to purchase their own computers.

### The partners

# Partners' motivations to join the partnership

The MPE, in its effort to promote a innovative and sustainable technological initiative in Costa Rican education, visualized the partnership with ODF as a way of guaranteeing efficient management of the project, avoid bureaucratic red tape and safeguard it from any political instability.

The government's interest has been to universalize educational informatics within the system, and ODF has definitely been the tool to do this. In fact, it has ask ODF to take on the Program for secondary schools which used to be coordinated by MPE. ODF has a method of doing this and has been doing a great job. We are going to provide it with additional support.

> Aura Padilla, Director of the Planning and Program Department, MPE (2002-2006)

The MPE has not only sustained its collaboration over, but has also expanded it, requesting ODF to assume control of the Program in secondary schools. ODF's

demonstrated administrative capacity and its experience in this field were the reasons for these decisions. Another reason was that the Program is regulated within the framework established by the higher level State authorities regarding the country's national education policy.

For the business sector in general and IBM in particular, the project was very attractive. Proof of this is the large interest that the private tender awakened in the national and international sectors. This was an ambitious Program with a universal vision that implied, on the one hand, large scale investment and, on the other, the possibility of obtaining short-to-medium term evidence of the results of the informatics model implemented in the country with corresponding technical support.

MIT's main interest was to provide a general application for a national education system, of ideas that had been conceived and proven only in the context of isolated pilot experiences.

Although USAID first thought the project to be too advanced for Costa Rica as its proposal seemed ambitious even for developed countries, its authorities finally became convinced of its potential. From USAID's perspective, Costa Rica did not need further help for basic health programs or educational programs, since it was considered to be a country with needs that were different from other less developed countries. Thus, this phase of the Program interested them, especially since it was not a traditional and basic educational program, but presented a special and innovative field for Latin America that could be adopted by other countries.

Finally, the public universities involved (UCR and UNA), whose main contribution to the partnership had been to loan some

When I first arrived in Costa Rica, a large part of the USAID assistance Program was geared towards macroeconomic issues and projects directed at trade, investment and growth. At the same time, we expected to finance new projects directed at developing social and human resources that would promote Costa Rican agencies. We sought innovative interventions performed by Costa Ricans. We wanted to find ways of promoting economic opportunities by accessing and applying new technologies. ODF's proposal of introducing computers in rural areas provided an important equilibrium to our general financing Program.

> **Carl Leonnard,** Director USAID Office in Costa Rica

of its employees to the Program, had as their main strategic interest to acquire specialized computer skills and experiences that they could, in turn, use to apply to their own academic departments.

### Risks assumed by the stakeholders when entering the partnership

Most of the risks associated with the technical and operative side of the program were assumed by ODF. A decade later, after the Program was consolidated in terms of its achievements and impact, the MPE and public opinion were ready to expand the initiative as well as for a stronger financial and technological commitment.

For example, the election of the Papert model at that point in time was a significant risk. First, there was no unanimity regarding its validity. Second, its proposals were complex and posed greater pedagogical challenges from the teachers than the other options.

From USAID's perspective, an element that also caused doubt included the feasibility of a high technology project with universal aspirations in the context

There was also clarity regarding the fact that this was a high risk Program since a significant part of its success fell on the response of the educators to the computer as well as pedagogical planning and training. It was obvious that operating a system closer to the computer-assisted instruction model, more explicitly educational due to its similarity to textbooks and traditional educational methods, could have had more acceptance at the beginning among teachers and parents as well as in the national general context. But the purpose was to attempt to renovate the educational system by modernizing not only the school, but teachers as well and although it would take longer for the results to become evident, it was necessary to direct the transformation towards that direction.

#### Clotilde Fonseca, ODF Founding Member and Executive Director, 1991:18

of a developing country. These types of considerations were part of the debates held with USAID, an agency that was also making a large investment in the project, in terms of resource and prestige. However, for this agency there were certain factors that counteracted the possible risks: strong governmental support, the quality and clarity of the proposal's definition, its backing by people known to USAID which also served as advisors in other fields.

IBM, on the other hand, was a partner that also assumed a risk in becoming involved in the partnership. It made a large investment in prestige, time, and resources without

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I remember that back then some people questioned whether or not the costs were appropriate, if it would be possible to provide computer support, if there would be enough electricity provided to rural areas for this, if perhaps it wouldn't be better to provide textbooks and materials... We had these debates. However, we came to the conclusion that the potential benefits exceeded the risks by a landslide.

> *Carl Leonnard,* Director USAID Office in Costa Rica

being completely certain that the initiative and its technical and operative actions would be successful, and that the company would obtain the expected results.

Formulating this initiative in the form of a partnership with a private organization implied different advantages for MPE, but also several risks. On the one hand, placing an educational policy in the hands of a foundation meant renouncing to direct control of one of its areas of competency. It also meant overseeing the Foundation to make sure that its management was strict and adhered to public institutional policy procedure while following the public policy educational guidelines of the country. There were not many foundations at that point and the State barely had a tradition of collaborating with this sector. There was a large vacuum of knowledge regarding its operation and the tendency was to be skeptical of them.

The way in which this risk was managed was by subjecting the administration of the public funds received by ODF to the public administration principles which included strict accountability mechanisms and, on the other, that it would adhere to the guidelines issued by the educational policymakers of the country.

Another risk confronted by MPE was the possibility that problems would arise regarding lack of correspondence between the Program and the rest of the national curriculum. In this case, the control mechanisms that were established for this purpose included close coordination among MPE dependencies responsible for elaborating the study plans and ODF.

What was most worrisome for me regarding the educational project was for the Ministry to lose its leadership role or decision-making power in this field. That was the most significant risk faced with ODF or any other agency or educational Program. But I do not see it as such since it is something that was already safeguarded by *educational polity itself. MPE and the country* are trusting because national educational policy continues to be its area of competency. *Educational informatics is part of an educational* policy that, in this case, has been agreed to by the High Education Council. This guarantees the country that notwithstanding who manages an educational Program, there is a policy that must be complied with and that we are bound to that.

> *Carmen Campos, Director of the MPE Educational Planning Division (2002-2006)*

# Main obstacles or problems detected in the partnership

The main partners involved in the partnership have shown a notable consensus regarding the objectives and operation of the initiative, with the exception of a few moments in the history of the project.

In 1990, with the government change and the investiture of a different political party, the understanding between MPE and ODF went through a period of disintegration. The new authorities at the ministry started to place obstacles, such as paralyzing the appointment of the staff assigned to the Program.

An important point of friction was the Educational Informatics Program for Secondary Education. In 1989, ODF initiated the design of a new program with the intention of transfering it to the new government authorities. The objective was to allow them the credit of having launched an innovative program together with ODF. Although this project could have been launched under the outgoing administration, it was preferred to give that opportunity to the incoming authorities. Unfortunately, they did not want to seize it.

As part of the design of the Secondary Education Program, a proposal was elaborated for the conduction of pilot experiences which were implemented by companies such as Apple, Epson, and IBM. However, in 1990, short after the change of administration, the new Minister of Education made the decision of suspending this process and said that ODF should limit its activities to primary school.

There was a minister who was not very understanding of the system and decided that he was not going to help. Then we thought that we could not lower our standards and that the capital funds of the Foundation would be used while that administration was in power; we survived these four years, which was a very critical period. For example, if something was needed, such as more advisors, more teachers for the Program, or if it was necessary to pay their per diems for them to receive training, the Ministry would not extend permit to them. This is a relationship in which a negative answer is not issued directly, but obstacles are set in the most complicated manner. *This isn't a face to face challenge, since the* Program had already been accredited...

**Carlos Espinach,** Head of the Presidential Decision-Making Support Program (1986-1990) and ODF Founding Member

A possible explanation to this resistance is that this initiative had been promoted by a political party which had become the opposition party. It is common to distrust projects that were initiated by a rival party, and this project, in particular, had characteristics that could increase such distrust due to the large amount of resources involved and the creation of a foundation to manage it. Another reason could be that the new head did not share the pedagogical approach of the Program.

However, after this four-year period, the following administrations supported the partnership and its objectives, to the point that the MPE handed over the Educational Informatics Program for Secondary Education to ODF, when Guillermo Vargas took over the Ministry after being designated by the same party which had distrusted and opposed the Program in the early 90'.

The relationship with IBM also suffered some problems. Despite the agreement regarding the specific objectives of the initiative, the disagreements arose in the project management field. The company launched a promotional campaign of the project in Latin America, which was called *Proyecto Génesis*, a name that had not been agreed with those in charge of the Program and which seemed to suggest that the Costa Rican initiative was an outcome of an international corporative project.

IBM lost a bit the perspective about who had launched the project; on several occasions, the project was promoted as "the IBM project in Costa Rica," which forced ODF to call this to their attention and tell them that this was not true.

*Gabriel Macaya,* former President, University of Costa Rica (1982-1988) and member of the ODF Board of Directors.

ODF interpreted that the way in which IBM was formulating the project's diffusion could suggest that it was a corporative initiative, to which the Costa Rican State had adhered. In fact, the project was a national public policy initiative and therefore it was much more than a IBM commercial product.

On the other hand, IBM hired several employees that were tied to the Program. This caused fear that there could be a conflict of interest. This situation convinced ODF that it was convenient to renounce to the IBM training and research center<sup>26</sup>, and to create its own training center. During the first two years, as established in the contract with IBM, teachers participated in an annual Media Lab training session. Later, the Program assumed the training and material development tasks independently through its own center.

## Roles and contributions of the partners

ODF has assumed the pedagogical and methodological direction of the project and its execution. To do so, it has had the support and advice of MPE. In addition, during the first decade, it provided a significant part of the Program funding, and still today contributes with essential resources. The pedagogic vision, management capacity, its fund-raising capacity and international contacts are some of the elements that best characterize its contribution.

Below is a detail of its main roles.

**Definition of the technical-conceptual framework.** During the Program's start, the ODF Board of Directors had a determining role in detailing the pedagogical and methodological proposal of the project. Since then, ODF has maintained the technical-conceptual, logistic and operative leadership of the Program within the more general guidelines of the High Education Council. It has defined the technicalpedagogical framework of the Program based on constant research, development and follow-up which have allowed it to consolidate and extend the scope of the project.

**Financing and fund raising.** Up until 1997, ODF was responsible for providing the necessary financial resources for its growth and operations. The resources provided by USAID in 1988 were assigned to ODF in order to obtain the maximum benefit from

<sup>&</sup>lt;sup>26</sup> The corporation was asked to replace the center with a donation of computers equivalent in economic terms.

them. Beginning in 1997, MPE, which had paid the salaries of the teachers assigned to the Program, assumed, together with ODF, the financial responsibility of the project regarding acquisition of equipment, software, and training. On the other hand, from the beginning ODF had the intention of developing a resource mobilization strategy for funds coming from the private national sector and other institutions as well as public and private international entities in order to execute special projects as well as research and development projects.

It is more difficult for MPE to acquire the equipment. The fact that it is a foundation makes things easier from a financial point of view, the ease with which it can raise external funds; management is easier and less bureaucratic than in a governmental agency. Thus, one feels that there are fewer obstacles.

> Aura Padilla, Director of MPE Planning and Programs Department

Purchase and maintenance of computer equipment. The assignment of the USAID funds to ODF, allowed it to directly assume the provision of economic, technological and advisory resources upon the signature of its agreement with MPE. In other words, ODF purchased the computers and loaned them to MPE. Regarding maintenance of the equipment, although at the beginning MPE was to be in charge of them, due to the lack of funds in the educational sector, ODF assumed this component of the Program. At the beginning it was done through agreements with suppliers and later by creating a department in charge of this task. This service is currently financed by contributions from MPE. ODF is in charge of selecting and buying the software for the Program.

In addition to creating a link with public educational policy and with national development goals, from the start, MPE provided the teachers and advisors that work in the Program and has significantly contributed to its budget. Support provided by the annual operative plan (which includes training activities, opening of new labs, substitution and maintenance of the equipment, etc.) and the corresponding assignment of resources is essential for the project.

Support from the MPE in terms of academic human resources, in other words, teachers and advisors, is fundamental. Being able to agree on operative elements such as the annual training plan backed by the Ministry is another essential point.

> Andrea Anfossi, Director for the MPE-ODF National Educational Informatics Program

Below is a detail of the main roles assumed by MPE in the partnership.

**Personnel contribution.** Throughout the history of the project, MPE has paid the salaries of the teaching and consulting staff. The Ministry provides ODF with advisors and teachers who are necessary for guaranteeing continuity and extending the Program. In addition, it grants the permissions for teachers and students to participate in MPE or ODF academic events. Sometimes it has also provided personnel to support the execution of research projects. In such cases, the Ministry assigns that person to join the staff of ODF for some time.

**Financing.** After ten years of executing the Program, MPE began to supply resources for regular expansion activities

in Educational Informatics. These contributions have occurred through the transfer of resources from the national budget. In this sense, MPE includes in its budget an annual transfer to ODF to purchase equipment, to organize training activities, etc. Control procedures have been established in order for ODF to elaborate a budget proposal and submit it to the MPE as well as obtain approval from the General Comptroller's Office.

**Infrastructure.** MPE contributes facilities for the operation of the Program: it has lended the building that is currently occupied by ODF and has facilitated the area where the laboratories in the chosen schools operate. In addition, it provides telecommunications services for educational institutions.

**Regulation and administrative coordination.** MPE created the National Educational Informatics Advisory Council, an entity in charge of establishing the technical and administrative link with ODF. It also regulated the computer lessons by incorporating them into the study plan.

Regarding IBM, during its participation in the partnership, this company not only provided technological infrastructure but championed research and development as well. Its contributions were a determining factor from the point of view of the alignment of the consultancy provided by MIT with the Program requirements established by MPE and ODF.

In 1988, as part of its contract with ODF, IBM opened a support center for the Program and began to build a team of national informatics specialists who were interested in education. The center made two main contributions: on the one hand, it served as a channel among the Program and Papert and the MIT team. On the other IBM made it possible for the group of people who created ODF and the Program to find an appropriate channel to materialize the project that they had envisioned. Thanks to IBM, it was possible to establish ties with MIT and adopt the constructionist approach.

*Clotilde Fonseca, ODF Founding Member and Executive Director (1987-1991; 1992-1994; 1996-).* 

hand, it provided two laboratories where teachers could be trained.

Regarding its participation as a technological infrastructure supplier, the value of its contribution is also important. The quality of its equipment prevented the computer laboratories installed in the schools from having significant maintenance problems, thereby granting the equipment a long life-cycle.

USAID provided USD seven and a half million which were used for purchasing computer equipment during the start of the Program. Its role, however, went further by authorizing a year after the project's startup that some resources were destined to create a capital fund for ODF. This economic support turned into permanent long-term security for the Program since it allowed its continuity when, in 1990, the government changed and the new Education Minister held a policy that opposed the Program.

Seymour Papert and other members of his Learning and Epistemology Group at MIT Media Lab provided a focus on Educational Informatics based on the development of logical-mathematical development and creativity as well as a specific educational proposal: the Logo programming language. MIT provided the first technical and academic training USAID did not intervene in technical-type decisions. In other words, it left the administrative and operations decisions in the hands of the executing agency. It allowed the development of the Program according to what it was planned and it showed an open attitude towards modifications which were considered critical for the Program's success and sustainability.

*Clotilde Fonseca,* ODF Founding Member and Executive Director (1987-1991; 1992-1994; 1996-).

on Logo programming and educational environments for twelve (12) Costa Rican teachers. After a three-week training period in Massachusetts, these educators became trainers and trained the laboratory teachers. They were initially assisted by members of Papert's group and IBM personnel.

The ideals proposed by MIT coincided with what ODF visualized and desired. MIT provided the partnership with an entire conceptualization regarding the potential of technologies in promoting high-level thinking, as well as a specific educational resource. ODF operationalized these contributions into a massive Program. Furthermore, ODF's appropriation of Papert's epistemological and pedagogical proposals allowed more in-depth analysis and enriched it after a while. It is interesting to note that Papert's team had a perception that it was not necessary

for ODF to become involved in high level training, in-depth analysis, and the research of the educational processes.

Our desire was to create solid internal capacities through good academic and intellectual training in order to understand the epistemological and pedagogical foundations of the proposed innovations. Within the MIT team in charge of the training, however, they considered that this wasn't necessary for executing the project. They had a more pragmatic vision, more learning by doing oriented. But in Costa Rica it was desired to have a profound intellectual understanding of the pedagogical and methodological fundamentals associated to the training provided by the international experts. That is why we emphasized generating our own training, research, and analysis processes.

*Clotilde Fonseca, ODF Founding Member and Executive Director (1987-1991; 1992-1994; 1996-).* 

MIT's academic support was not limited to these first phases; it became a constant companion throughout the life of the Program. Moreover, MIT has become a source of national and international prestige and credibility for the Program. The fact that such scholars and the name of a great university backup the project have been determining for the expansion of the network of international contacts and the mobilization of resources.

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# Table 6.Summary table of the partnerships created as part of theNational Program of Educational Informatics of Costa Rica

Outcomes	Project design	Partners	Resources and competencies
1) Social and cognitive development as well as significant appropriation of technology by students. Specifically:	Social and gnitive velopment as Il as significant propriation technology students. ecifically:Policies and regulations: - Establish the collaborative MPE- ODF framework - Legal recognition of ODF as an entity capable for receiving public funds - Backed by the governmentDevelopment of logical- mathematical hinking Development of oroblem-solving skillsOperative design: -Study of models applied in other countries -Request for companies to participate 	MPE	<ul> <li>Linkage with educational public policy and the administrative and operative structures of the educational system.</li> <li>Payment of salaries for teachers and annual transfer of funds for training, opening new labs, updating equipment, etc.</li> <li>Logistics support in several activities</li> </ul>
<ul> <li>Development of logical- mathematical thinking</li> <li>Development of problem-solving skills</li> <li>Use of errors as learning opportunities</li> <li>Extension and analysis of</li> </ul>		ODF	<ul> <li>Academic and operative concept for the project, especially focus on educational informatics based on the development of logical-mathematical thinking, problem solving skills and creativity.</li> <li>Financial support for the Program.</li> <li>Innovation ad research support structure.</li> <li>Management capacity, capacity for capturing resources, flexibility</li> <li>Creation of high level working team and establishment of international contacts (academic and financial).</li> </ul>
<ul> <li>curricular topics</li> <li>Development of creativity and expression</li> </ul>		Papert & MIT	<ul> <li>Software and a concrete educational proposal: Logo Programming Language</li> <li>Initial training of teachers</li> </ul>
2) Contribute to improving the quality of the educational		IBM	<ul> <li>Sale of initial technological infrastructure</li> <li>Initial effort for establishing a research and development center</li> <li>Introduce ODF to Papert</li> </ul>
system.		USAID	- Economic support for purchasing equipment for the first group and for comprising ODF's capital fund
		UCR/UNA	- Human resources support
		University of Hartford	- Creation of a Masters Degree in Educational Informatics for Costa Rican Educational Informatics Advisors in response to ODF's request.
	Infrastructure: -Installation of laboratories equipped with computers -Community sensitization -Establishment of agreements with ICE and RACSA	Commu- nities	- Support for construction and conditioning of classrooms

## Types of agreements between the partners

In 1989, a cooperation agreement between MPE and ODF was signed in which both institutions recognized the need to join efforts in order to improve Costa Rican education. The agreement was signed by the Minister of Education as representative for the MPE and the President of the ODF Board of Directors and was endorsed by the General Comptroller's Office.

The agreement set forth the responsibilities of MPE and ODF. The 1997 addendum stated that financing for equipment, software, and teacher training was assumed jointly by ODF and MPE.

In January 2002, a new cooperation agreement was signed between both institutions to create the National Program of Educational Informatics for Preschool, Primary School, and High School, executed under the responsibility of ODF. This agreement led to the signing of an execution agreement in July of that same year between MPE and ODF which details the exact relationship between the ODF Executive Office and the Ministry and their roles within the program framework.

Once these agreements have been approved by the Comptroller's Office, they must be respected by the government. Given the continuity of governmental actions, no one questions this when the government changes. This gave the project additional stability.

> *Francisco Antonio Pacheco, Minister of Education (1986-1990) and ODF Founding Member*

These agreements, approved by the General Comptroller's Office, detail the cooperation relationships between MPE and ODF, granting them the necessary stability and allowing them to evolve over time. In addition, MPE and ODF signed various loan agreements which regulate the loan of equipment and the building used by ODF.

It is a general agreement that looks to the future, not only the present, and allows us to think how this large framework involves many things that have not yet occurred.

Andrea Anfossi, Director of MPE-ODF National Program of Educational Informatics

ODF and the national universities that participated during the first phase of the initiative elaborated cooperation agreements by which the universities loaned various professors, who were trained at MIT and later were incorporated into the Program. The concession was made under the condition that these professors would spend part of their day doing research.

Table 7 shows the most important agreements established by ODF and other institutions.

Apart from the above mentioned agreements, ODF's legal aknowledgement in 1988 by the Congress as an institution capable of receiving public funds from State agencies has played an important role. This political support made it posible for ODF to get the help from internacional organizations, such as the grant which was provided by the USAID for the acquisition of equipment and the consolidation of a capital fund.

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Partners	Type of agreement		
MPE	<ul> <li>Cooperation agreement (1989), with an addendum (1997)</li> <li>Cooperation agreement and execution agreement (2002)</li> <li>Several loan-for-use agreements</li> </ul>		
USAID	<ul> <li>Memorandum of understanding (signed by ODF, MPE, the Government of Costa Rica, and USAID)</li> </ul>		
IBM	<ul> <li>Private contract (1987)</li> <li>Settlement agreement and purchase-sale contract (1989)</li> <li>Cooperation agreement, whereby both parties agree to retake some of the 1987 covenants provided that some conditions specified therein are complied with (1989)</li> </ul>		
UNA	<ul> <li>Cooperation agreement and letter of understanding detailing the contributions and responsibilities of each institution (1988)</li> </ul>		
UCR	Cooperation agreement and letter of understanding detailing the contributions and responsibilities of each institution (1989)		

Table 7.Types of agreements established between ODF and other institutions

### Decision-making mechanisms

The larger goals of the Program are established according to the general educational policy settled by the High Educational Council as a main regulatory agency for national educational policies. Under the general guidelines of the Council, MPE proposes and defines the educational policies.

There have been various experiences regarding the decision-making process for Program coverage. The National Development Program establishes macro commitments that the government acquires with the Costa Rican societyfor four years (whose compliance is overseen by the General Controller's Office) that originate MPE strategic policies, including educational informatics. Within this context, the Program has grown through annual expansion planns which have been negotiated with MPE authorities.

The second decision-making level has to do with the routine technical and academic management of the Program. These aspects are worked on by ODF in coordination with the MPE, according to the provision in the execution agreement of the Program. A permanent communication framework is required for maintaining a coherent vision between these two great Program partners. ODF Board of Directors and the executive power representative to the Board, who is generally the minister or a high-level MPE official, play a determining role here. The participation of MPE at this decisionmaking level has varied over time, depending on the degree of identification and closeness of the minister with the Program and ODF. As seen in the history of the Program, there have been times in which MPE has generated more obstacles than facilitating factors and others in which mutual understanding and cooperation have been high. Depending on how this relationship originates, the support from MPE may be limited to the contributions provided by the execution agreement or extend beyond its scope.

Another area of decision making is selecting the centers to be included in the Program. At the beginning, the schools were selected jointly by MPE and ODF according to student population and regional density criteria. Afterwards, the schools were then selected by ODF, following a series of criteria established by the MPE.

For a time, the reigning criterion was poverty and student population density since this would allow more children to be reached under the same investment. Priority was given to rural schools and schools located in urban marginal areas. Afterwards, the criteria that prioritized coverage moved to equity and the goal was to reach the smaller size schools, specially those schools located in less developed or more rural areas. This was a great challenge for ODF since it involved adjusting the pedagogical proposal and applying it to schools that only had one teacher.

On the other hand, the Program prepares a preliminary budget on an annual basis with the desired goals to be achieved and which includes elements for increasing coverage, renewing technological platforms in schools, and training among others. This preliminary budget is submitted to the Ministry for its consideration. After that step, an Annual Operative Plan (PAO) is prepared and then incorporated into the general budget for MPE and the entire country.

For example, when planning the budget, the people from the Foundation come here and sit down with a list of resources that are needed. That link between "what we need" and "what we can give them" is clearly stated. The negotiation is very transparent. They arrive with specific plans. The Foundation's plans have to be well-defined for MPE to respond to them.

Aura Padilla, Director of Planning and Programs Department, MPE (2002-2006).

## Conflict resolution between MPE and ODF

already mentioned. As the most complicated period in the partnership between these two partners occurred when the government changed in 1990. During the administration of former president Rafael Ángel Calderón Fournier (1990-1994), the Minister of Education Marvin Herrera had an unfavorable attitude towards ODF and the Program, to the extent that various labor contracts with different personnel that had been on loan from the MPE were not renewed and it was even expected for the consultants to return the money that they had received as a surcharge. During this period, it was necessary to recur to members of ODF Board of Directors who had close ties with the political party of the then current government as well as seek mediation from other members of the Executive Power that had a more favorable position towards the Program, among them, the Minister of Science and Technology, the Minister of Justice and the Minister of Finance. In addition, better channels of dialogue were sought in order to stabilize relations between MPE and ODF.

Since then, the relationship between MPE and ODF has been characterized by a substantial understanding of the larger definitions and objectives. The few disagreements that have occurred were related to specific technical and operative issues and were resolved without complications through dialogue and receptiveness by both parties.

When we have had to renegotiate different issues, ODF and our office have been completely open. When there are differences, there is a willingness to talk and negotiate (...). Technical differences are resolved in order to apply what is best to the Program. If MPE has to yield, it yields. If ODF has to yield, it yields.

Carmen Campos, Director of MPE Educational Planning Division (2002-2006).

Among these points that require deeper attention and the search for agreements, the most delicate is the budget allocation since there are always budget restrictions motivated by differences between the larger goals that are planned and the actual budget that Costa Rica has to fulfill these goals. Although not all ODF requirements are satisfied regarding the budget, the decisions of the Ministry have always been respected. Nevertheless, MPE authorities state that the resources assigned to the Program increase every year in order to carry it out, despite budget restrictions.

### Outcomes and lessons learned

The Program life cycle of 18 years is a good indicator that the partnership between MPE and ODF has been effective and sustainable. Assigning the secondary school educational informatics program to ODF, under the same scheme, is another example of how well the partnership has operated between these two partners. Comments by most of the people interviewed reflect the consideration that the programmed activities have been fulfilled and continue to be fulfilled. In some cases, it was indicated that the scope of the Program has even exceeded dimensions far beyond what was initially anticipated. It was also mentioned that the Costa Rican society has appropriated it and that it has achieved national and international recognition.

The objectives were exceeded. For example, we never anticipated the effects that the project would have on educator's self-esteem and that it would be one of the first effects that occurred. That they would feel proud and stimulated. Something else began to happen that we had not considered. There was an improvement in the student's attendance on lab days. In other words, the students' interest in school increased.

> Francisco Antonio Pacheco, Minister of Education (1986-1990) and ODF Founding Member

In this sense, Seymour Papert affirmed the following: "Under the leadership of Clotilde Fonseca, an exemplary program has been designed in which hundreds of academic professionals, the majority with no technical background, learned to program in Logo. This has resulted in a high level of confidence in themselves as well as in their country to carry out something that was perceived as a challenge, modern, difficult and 'not for people like them'" (1993:76).

At present, the Program coverage reaches 55.5% of the students in primary (including a large number of preschoolers) and 80% of high-school students throughout the country. Another relevant outcome is the solid teachers' professional development and follow-up model focused on the creation of learning environments supported by technology.

As seen, the partnership has had to face several challenges, such as political changes and transition between administrations as well as problems regarding the ownership of the project and difficulties to match the individual objectives of the organizations involved.

On the other hand, among the key success factors, the vision, leadership, and commitment of the partners leading the partnership must be stressed. The emphasis on technical criteria for making decisions, the efficiency, accountability, and transparency as well as a genuine understanding of the need to cooperate and the complementarity of diverse partners to make the project successful are undeniable.

# Benefits of the partnership approach

A consensus exists among the people interviewed who believe that without this type of partnership the Educational Informatics Program would not have had the outreach that it has had or that it would be a project with very different traits. The partnership approach is among the key factors that made the Program possible, effective, and sustainable over time.

Without an agreement between MPE and ODF, this Program would not be what it is today. I don't mean that it could not exist, but it would not be what it is today, nor do I believe that the MPE would have been able to achieve what it has with ODF and ODF would not have been able to achieve what it has in this program if MPE had not been a permanent strategic partner in this project.

Andrea Anfossi, Director of MPE-ODF National Program for Educational Informatics

*I believe that that this type of partnership was* well developed and establishing ODF was a great opportunity. Public administration is rather complex, including MPE. I think that it would have been difficult to advance so efficiently in reaching our goals at the level that we have today. Perhaps we could have been able to advance with an internal MPE strategy. But it was definitely an opportunity to accelerate a program as important as this one which implies much innovation, being updated and agility. Maybe the government would not have allowed this type of agility, the establishment of other partnerships, complying with the terms, assuming commitments with other international organisms. Certain internal conditions are required that, I believe, the MPE would not have been able to execute as ODF has.

*Carmen Campos,* Director of the MPE Educational Planning Division (2002-2006).

For ODF, this experience has meant the possibility of becoming a benchmark organization in the area of educational informatics, both locally and internationally, thanks to the lessons learned throughout all these years of partnership with MPE and other organizations.

For MPE, the benefits of the partnership exceed its costs. This positive balance, as stated earlier, has led to a deeper partnership after thirteen years of joint work with the transfer of the high-school program to ODF.

The outcomes of the project justified the investment of resources since the activity being dealt with was non-basic, but rather sophisticated and coincided with USAID's plans for a country like Costa Rica.

Flora Ruiz, Education Officer, USAID-Costa Rica

For USAID, the project turned out to be a success, and its authorities have shown great satisfaction with the outcomes and evolution of the Program.

## Costs of and lessons learned from the partnership approach

Assuming this project as a partnership between the public sector and the private sector implies costs and benefits for the institutions involved.

Although MPE acknowledges that there are many benefits, the partnership has brought about costs to the Ministry related to the control of the initiative and the loss of opportunity to build, within the public administration, the capabilities for the project's development and management.

Given the existence of this scenario, the capacities that had initially begun to develop with the highschool Program did not develop more intensely within the MPE. But the benefit is greater, in terms of the cost/benefit analysis and remains safeguarded as such.

Carmen Campos, Director Educational Planning Division, MPE (2002-2006).

IBM Costa Rica obtained immediate benefits from the partnership as the company that was awarded the first private tender launched by this initiative. This circumstance allowed it to use the project as a publicity mechanism throughout the region. But, at the end, the company was not able to obtain all the benefits or derivations that it had foreseen. Its leaving the partnership was due to lack of clarity and coordination to match the Program's objectives and those of this company, and to a lack of understanding as to how the partnership could benefit both institutions. Had it been differently, IBM's participation could have produced greater benefits.

The partnerships with the national universities did not continue for the longterm with the expected depth and sustainability. The interviewed officers suggest lack of interest and understanding about the scope of the project by the academic institutions. The universities' leaving the partnership was an unfortunate event for the project and the organizations involved in it. Overall, it is generally acknowledged that had the universities continued to support the project, its success would have been even bigger. Had UCR demonstrated interest in ODF with actions, ODF and educational informatics would have progressed even further.

Víctor Buján, Advisor to the Minister of Education (1986-1990), Member of the Technical Commission and ODF Founding Member

For the specific case of the UCR, the employees on loan that were to be the first group of trainers and advisors did not remain in the University. As a result, it was impossible to better seize the partnership and their investment. As a result, the UCR was not profoundly impacted by the partnership. The representative from the UCR that was interviewed stated that there could have been many benefits from having continued its partnership with ODF and that it was a lost opportunity.

The benefits of the UCR-ODF agreement could have been many for UCR. It could have become a ODF-UCR innovative educational institute. The objective was to link ODF to the UCR as closely as possible. During its first few years, the Foundation was able to achieve this linkage. But one of the partners began to lose interest. However, ODF was able to solidly continue the process.

**Gabriel Macaya,** former President, University of Costa Rica (1982-1988) and Member of ODF Board of Directors

## Characteristics that have made the partnership effective

The following are some aspects that have contributed to the effectiveness of the partnership.

Presenting the project as a government policy. The maturity that the Program soon acquired is due, to a large extent to the clear political decision in support of the project and the strong national support. Although initiated as a project during the Arias Administration, the Program had the support of the High Education Council during the following educational administrations, independent of the political party in power (with the exception of the legislative period of 1990-1994). The State has the guarantee that this isn't a private or political interest project, but is part of the national education policy indistinctly of who manages it.

Avoid politicization. In addition to creating a foundation as an independent executor in order to protect the project from changes in the government, different political parties were sought for involvement in the project. Among the founding members, one can find people belonging to different political parties. This has also contributed to converting the project into a national project, thereby guaranteeing its permanence.

A project that aligns desires and interests. From the start, this project attracted national attention and interest from different sectors. Businessmen, computer specialists, а supportive government, teachers and communities where the labs were installed all participated in the project. An interinstitutional infrastructure was established for the Program to be supported by the State, the community and the private sector.

Interinstitucional coordination, clarity and transparency in the relationship. The Program has been able to develop with the necessary efficiency and coordination for achieving the proposed goals. An important factor is the availability of both dependencies and the understanding achieved on a technical, administrative, and pedagogical level among ODF and the different MPE instances related to the Program. A trait that the partnership members consider crucial in their relationship is transparency. In the particular case in which a private nonprofit entity establishes relationships with the State, this requirement is even more important.

There has been a very technical understanding. We have been able to become technically closer. We have been able to agree on criteria regarding formats, deadlines, etc. with a clear objective. Both institutions know the role that must be performed and that is important for our relationship to be successful.

Carmen Campos, Director of the MPE Educational Planning Division (2002-2006)

An interdisciplinary and highly qualified group of advisors and employees. Even though many of the fundamental long-term decisions have been made by educators and intellectuals associated with public education and universities, many economists, businessmen and industry professionals have also participated which has greatly enriched the general perspective of the Program. Having onboard a group of professionals who are greatly committed and are highly skilled has also impacted the efficiency of this partnership.

A fundamental aspect is the quality of the people. If a project falls in the hands of dedicated and hard-working people who are truly interested in moving the project forward, then everything else, or almost everything else can be overcome. If you do not have people who are truly committed to the project, then the project will fail.

> Francisco Antonio Pacheco, Minister of Education (1986-1990) and ODF Founding Member

Leadership and vision. For most of the interviewees, one of the most influential factors to the efficiency and success of this project is the vision, leadership, and commitment assumed by the organizations involved and the people in them who have assumed the academic and operational direction of the project. On several occasions, the leadership of Clotilde Fonseca, ODF Executive Director, is mentioned.

Correct technical decisions. The success of this process is tied to specific decisions that were made at different points in time. A fundamental decision was to initiate the Program with primary education with the objective of seeking to incorporate all of the technological and intellectual potential in the thinking and acting of a new generation of Costa Ricans. Another important factor was to link the Program to teacher-training and to the general interests of the schools which contributed to obtaining support from the educational authorities and teaching personnel. Selecting the IBM proposal was another decision that gave the Program international credibility since it had the support of Papert and his team from a prestigious institution, such as MIT.

A strict, yet flexible management system. As was stated beforehand, a foundation has many advantages in comparison with a public institution regarding the flexibility of its tender processes, greater possibility of external cooperation and resource management. Notwithstanding this, ODF has had the strength of managing its own equipment purchasing processes as well as its own software using a procedure similar to that followed by governmental agencies, although without sacrificing the interests of the project to formal procedures. In addition, the legal framework offered by the General Comptroller's Office gives transparency to its actions.

A balance has been achieved between the natural autonomy corresponding to a foundation and the authority for certain decisions that must be attributed to the government. On the other hand, ODF has demonstrated that its management The way ODF is managed is a guarantee for the Ministry since ODF achieves the objectives that it proposes. ODF management and the way it does things makes everything easier. ODF's management is what makes the difference. Maybe that is the key to why it has worked.

> Aura Padilla, Director of MPE Planning and Program Department (2002-2006).

has been able to achieve its proposed objectives.

**Financial growth.** The initiative has successfully overcome times of crises, thanks in part to the vision of creating a solid capital fund. Thanks to this decision, it was possible to guarantee the Program basic operation costs and, as a result, the continuity of the Program at times when the support of the main partners weakened.

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### Final conclusions

As already noted, the success of the partnership in the National Program of Educational Informatics is due to a combination of factors ranging from the personal dispositions of those heading the organizations, to the historical and socioeconomic juncture surrounding the launching and eventual evolution of the initiative.

Given the history of the different partnerships involved in the Program and which are described in this work, it is possible to extract certain lessons that have been learned which, in turn, are the factors that affect the success of a multistakeholder partnership. Next is a description of the traits that contribute to the progress of partnerships followed by a description of those that prevent it.

- Acknowledgement of mutual need and complementarity. The key starting point in the creation of partnerships is analyzing what competencies or strengths others may contribute to setoff one's weakness; this should happen without institutions feeling diminished. Partnerships should originate out of an authentic need and a clear vision of the strategic value of each member's contribution. The success factor consists in admitting that one cannot work alone to solve a problem and that it is necessary to join efforts.
- Disposition and personal will for understanding. Multistakeholder partnerships depend a lot from the people who lead them, of their level of commitment and the empathy they create with the other partners. Problems and solutions in the relationships between institutions and groups

#### Figure 1. Factors that contribute to the progress of a partnership

- · Acknowledgement of mutual need and complementarity
- · Disposition and personal will for understanding
- · Equality in the contributions and benefits
- · Equality in the decision making process
- Respect and communication capacity
- Direct and honest communication patterns
- · Delimitation of the purpose
- Professional rigor and discipline
- Clarity of roles, interests, and expectations
- Potential of and interest in the project
- Understanding of the local partners' and beneficiaries' needs
- Evaluation, feedback, and maintenance
- Support and knowledge of the context
- Openness and flexibility to review and renegotiate agreements
- Establishment of long-lasting ties

always have a personal component. In partnerships, there is an objective element provided formal bv mechanisms, such as laws, regulations, covenants, agreements, etc.; the flip side of the coin is people's capacity to keep a positive attitude and a true desire to collaborate. Partnerships work because there are institutions and people who are willing to participate not only in formal contexts but also in informal ones. Often, a positive attitude from one of the parties may improve the relationship a good deal. Partnerships are built by trust.

- Equality in the contributions and benefits. If there is only one partner who contributes and one who receives, the partnership can hardly work: all its members must contribute and receive benefits. A partnership cannot be conceived without the participation of all the partners involved in the process, based on a win-win model. This mutual benefit has different scopes depending on the partners involved.
- Equality in the decision making process. Cooperation processes that work are those in which equal partners participate, without marked dependency or hierarchies. A member may not pretend to control, influence, or define visions, make decisions, or undertake actions for the other members unless specific agreements to this end have been reached.
- **Dialogue capacity.** Respect between the partners and the existence of equivalent dialogue and exchange capacities in both institutions are key factors. When the process takes place between partners who do not have the same profile and vision capacity within the organizations, the whole process is affected.

- Direct and honest communication patterns. Partnerships cannot work in contexts in which access to key information is restricted or prevented. Hypocritical or insincere attitudes can only damage the trust needed for the good operation of the initiatives. Good communication channels must be created; it is here where a tool such as Internet, which facilitates the exchange of information quickly, especially when conditions do not allow organizing meetings regularly, becomes essential.
- Delimitation of the purpose. Partnerships must have a purpose, an objective, and a focus that has to be understood and shared by all its members. In addition, the purpose must be valid and meaningful for each partner; otherwise, partnerships do not last. For a multistakeholder partnership to work, it is important to have a common goal shared by all the sectors to prevent each institution to take different positions regarding the project; moreover, the desire to benefit the target population must also be shared.
- Clarity of roles, interests, and expectations. For partnerships to work, each member's roles and expectations must be explicit and clearly specified. Hidden agendas or implied interests are lethal to a partnership: they destroy the trust and undermine the achievements.
- Professional rigor and discipline. The organizations in a partnership should award the project being undertaken together the same professional rigor and discipline applied to manage their individual activities. Projects move forward when they are backed-up by a high commitment and professional attitude. This is a general rule, but its compliance is more crucial in

those cases in which there is a risk of delegating responsibilities incorrectly.

- Work approach focused on an understanding of the needs of the beneficiaries and the meaningful social appropriation of digital technologies. Successful partnerships in the digital technologies for development area share the same essential approach or philosophy: they start with a systematic effort to understand the needs of the target populations and to strengthen their capacities to make a meaningful and productive use of the technologies. To guarantee the effectiveness of the partnership, all partners must share a genuine interest in the target population.
- Evaluation. feedback. and maintenance. Carrying out periodic evaluations of the members' participation is fundamental for the partnership's health. The partners must be well informed of the evolution of the projects and must be provided with feedback by the other partners. Whether formal evaluations are carried out or not, some feedback mechanism must be implemented.
- Support and knowledge of the context. Another key element is to know the environment or context to which the project belongs well, especially what has to do with social, economic, and political stakeholders that may have some influence on the project. For some

projects, for instance, it is fundamental to guarantee the political support; therefore, the partners must learn to related effectively and smoothly with key political agents.

- Potential of and interest in the project. An important motivation to be part of a partnership is for the project to be innovative and visionary rather than a short-term project with little expectation of expanding its scope. Guaranteeing this factor is fundamental to attract partners to the project whose participation may become essential.
- Openness and flexibility to review and renegotiate agreements. Agreements may not be considered as something rigid and unchangeable; many times it is necessary to renegotiate issues already discussed and to be willing to review aspects not included earlier or taken for granted in the beginning. Partnerships must be capable of understanding that sometimes the way in which a project was originally designed is not the most adequate, or that the context has changed and new requirements and challenges have arisen.
- Establishment of long-lasting ties. Long-lasting ties help create a climate of trust and a shared expertise that may facilitate the joint implementation of future initiatives.

On the other hand, it is also possible to draw from the experiences analyzed some factors that may hinder the progress of partnerships.

#### Figure 2. Factors that hinder the progress of partnerships

- · Lack of knowledge, openness, and adjustment to each other
- Difficulties to match individual objectives
- Lack of transparency
- · Asymmetry and lack of participation in the decision making process
- · Lack of recognition and problems regarding the project ownership
- Lack of clarity about roles and conditions under which the project is to be developed
- Interference of personal or political interests
- Lack of interest
- Lack of continuity of the people in charge of the project in one of the stakeholders
- Prejudice and mistrust among sectors
- Impunity
- Lack of participation of key stakeholders in the partnership
- · Lack of knowledge, openness, and adjustment to each other. Before joining a partnership, it is crucial to know first what implications the participation in the project will bring about for the various partners. An important requirement is that each partner knows well the operation frameworks, internal regulations, and different approaches to the project applied by the various partners. It is not only necessary to know these frameworks, it is also important to respect them. Institutions develop their own style, and it is not easy to find partners that may adapt to them. It is not easy to reach agreements, especially when each organization is successful in its own style.
- Difficulties to match individual objectives. Partnerships may hardly work unless common objectives are not set, nor are they successful if the partners cannot reach their own

individual objectives. The problem arises when the partners have different agendas, expectations, and objectives, and these are not stated or discussed in depth and clearly to make it possible to reach an agreement as to how to have them match. Therefore, it is necessary to have strong coordination mechanisms and willingness to participate in a dialogue and reach an understanding to be able to agree on the lines of action for the project.

 Lack of transparency. Closely related to the previous point is the lack of transparency in personal relations. Among the members of a partnership, it is fundamental to have clear communication that gives no grounds for doubts or ambiguities about motivations, expectations, and fears. If this does not happen, it is likely that the relationships will deteriorate to the point of rupture.

- Asymmetry and lack of participation in the decision making process. One of the causes of conflict arises when one of the partners feels relegated in the decisions and when it feels that it does not have the necessary power to protect its interests. The disparity of positioning among partners may lead the larger partner not to take the smaller one into consideration. The effective participation of all partners involved also becomes difficult when there is no agile mechanism for communication to flow, beyond the decisions that require a joint decision. That is, information about identified advancements or problems that allow monitoring what has been happening.
- Lack of recognition and problems • regarding the project ownership. When one of the partners takes the credit for the project, this may generate confrontations among the partners and endanger the collaboration. This implies issues related to public positioning and an image of power. It is not always possible to have the capacity or will to acknowledge the contribution of the others in the partnership, and this deteriorates the partnership. It is important to be careful about how the outcomes and achievements of the project are disseminated, how much public recognition is granted to the partners, etc. These elements become more serious in projects of great impact, which imply a strong investment, and, therefore, that entail considerable expectations about its outcomes.
- Lack of clarity about roles and conditions under which the project is to be developed. An element that jeopardizes the effectiveness of partnerships is the absence of clear roles and conditions. This happens when

the requirements to be met have not been analyzed carefully, the conditions imposed by the environment have not been considered, and the nature of each partners in the partnership and the roles each has to assume, according to their strengths and weaknesses, have not been identified.

- Interference of personal or political interests. In some cases, party or personal interests may interfere adversely with the interests of the project.
- Lack of interest. Sometimes partnerships do not work or do not withstand the test of time simply because of lack of interest in one of the partners.
- Lack of continuity of the people in charge of the project in one of the partners. When this happens, it is usually necessary to use an awareness-raising strategy to make the newcomer fall in love with the project, review agreements that were reached, and even renegotiate the conditions of the collaboration. Only very strong partnerships in the operational and institutional field may survive an attitude of hostility and lack of interest by the new members of the participating institutions.
- **Prejudice and mistrust among sectors.** Prejudice or distorted positions that sometimes sectors have of each other do not help partnerships. The public sector mistrusts the private sector (both for profit and non profit); the for-profit sector and the business sector mistrust the State. This makes it even more difficult to create longterm partnerships among the sectors because of the interpretations made by

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the partners of each others' attitudes and motivations. On the contrary, the approach among diverse sectors presupposes an enormous potential of enrichment for the participating organizations. This implies multiple learning opportunities, not just of tools and skills required to achieve a good understanding, but also of the strengths of each sector.

• **Impunity.** An element that may affect the good operation of partnerships

and even the establishment of new cooperation projects is impunity. When a contract breach has no consequences, this may generate a climate of mistrust that interferes with the partnerships.

• Lack of participation of key actors in the partnership. Another factor that decreases the potential of success of a partnership is the lack of participation of actors considered important for the project.

Este documento se terminó de imprimir en el mes de marzo de 2007, en los talleres litográficos de Lara Segura & Asoc. (506) 256-1664