

The social impacts of ICTs in Latin America and the Caribbean: The MISTICA¹ virtual community and the OLISTICA observation network

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Background

Communities and virtual communities

Even before the new information and communication technologies (ICTs) imposed themselves as the common vehicle of social relations, there was much discussion about the impact that successive waves of modern technology might have on the organizational quality and capacity of various kinds of communities. After years of debate, and with the support of painstaking ethnographic analysis, it is now widely accepted that, in defining communities, we must first consider the social networks that constitute them, rather than focusing exclusively on interactions within the constraints of geographic space (Pimienta 1993a; Silvio 1999; Wellman and Gulia 1999).

Computer-mediated communications (CMCs) or as we may also call them, computer-supported social networks, have relied on a series of functionalities mediated by telecommunication networks, from Bitnet on through UUCP and arriving finally at the Internet.⁴ The social role of these networks has sparked much debate. Since because they provide connections that go far beyond geographical frontiers, they can produce spaces for solid interaction that can eventually foster social change (Pimienta 1993a; Silvio 1999). Although the most enthusiastic (often the older) writers have described CMCs as social networks free of physical markers where there are no barriers of any kind to the flow of communication, other authors have recently argued that the (re)construction of identity in the complex fabric of online environments betrays social stratification in terms of class, gender, age, ethnicity and other determinants of social interaction (and domination) among the players that populate these environments.⁵

Although the implicit internal dynamics of CMCs are extremely complex, the role that civil society organizations (CSOs) can play in appropriating ICTs has been and will continue to be of vital importance in different interrelated political contexts at the local, national, regional and global levels. According

to Ribeiro (1998), the adversarial nature of CMCs had its roots in the California counterculture of the early 1980s that did much to create a political networking culture. What emerged was a utopian vision that would articulate alternative media over a profoundly democratic, even anarchic, platform.⁶

Civil society and ICTs under the impact of globalization

The context in which CSOs and the new social movements are developing and evolving is one where the phenomena of globalization, together with the process of flexible accumulation and the model of “informationalist” development described by Castells,⁷ are rendering large sectors of certain economies, and even whole societies, structurally irrelevant within the current logic of the system. Castells (1996) describes this accelerating process of social exclusion as the emergence of “black holes” in the new information age where, statistically speaking, there is no escape from absolute misery. At the same time, grassroots organizations and national and international non-governmental organizations or NGOs (also called “neo-” or “para-governmental” organizations since they tend to take the place of government agencies weakened by structural adjustment policies and the need to legitimize a representative political system that is collapsing) are faced with the choice of becoming independent bodies that can negotiate the people’s agenda freely with the public and private sectors, or else simply surrendering to arguments alien to the neoliberal process, perhaps contributing mechanisms of self-control that the market will use to correct its own excesses (Yúdice 1998).

Yet, with the tactical support of ICTs, the democratization of political issues of global importance is today an authentic component of a common agenda that knows no borders. But common for whom? Where are the new forces or social players capable of truly transforming social injustice and overcoming the lack of balance with our environment that the patriarchal model of unlimited economic growth has plunged us into, at the peril of our very survival as a species? As Castells (1997) and Melucci (1996), among others, have explained, exploitation today is synonymous with “deprivation of control over the construction of meaning” (Melucci 1996: 182) and, since the processes of domination are embedded in information flows, the battle is being fought in cultural contexts where “the building of autonomy has to rely on reverse information flows” (Castells 1997: 66). In this way, language and the process of codification for giving names to reality and organizing its content will depend to a large extent on the production and appropriation of unmanipulated knowledge, resulting from the strengthening of the analytical skills and self-critical capacity of new social players (Melucci 1996, 1998). To paraphrase Castells (1996), the question of who are “the interacting and the interacted” now defines which are the systems of domination and liberation, respectively, of the information society.

CMCs and CSOs in Latin America and the Caribbean

During the 1980s and until the early 1990s, various groups attempted to appropriate these new technologies and turn them into development tools for reducing the discrepancies between the so-called North and South (as well as the differences between the North that is in the South and the South that is in the North). Yet it was not until the early 1990s that the Internet came into common use among universities and NGOs in Latin America and the Caribbean. Organizations such as the Association for Progressive Communications (APC),⁸ an international non-profit network that provides information technology support to CSOs, or Fundación Redes y Desarrollo (Networks and Development Foundation, FUNREDES) played a key role in the region by providing the first connectivity nodes in several countries, together with strategic or methodological models for building national and regional networks (Pimienta 1993b).

A study prepared by Ricardo Gómez (1998) identifying some of the advantages that ICTs have provided NGOs in the region (in particular the first-order effects of e-mail) found little evidence of second-order effects that might have a deeper impact on the organizational capacities of NGOs included in the survey (basically in terms of interrelationships and balanced participation). In the particular case of Colnodo⁹ in Colombia, Gómez found that the “nostalgia of community” was the only thing sustaining it, a fact that according to the author did not suggest any common ideal of belonging to a solid global community of CSOs. Gómez concludes that by the mid-1990s the special niche that APC had carved out in the region had dissolved in the explosion of commercial Internet providers that offered services at lower costs and brought with them the mass marketing of these new technologies and subsequently trivialized their content.

Despite the highly optimistic working hypotheses about the positive impact of ICTs on development, it has turned out to be very difficult to estimate their impact on CSOs and users, and at the same time there has been very little systematic effort to analyze the situation comprehensively. We may point to the research now underway by Kemly Camacho at Fundación Acceso¹⁰ (Costa Rica), the preliminary results of which have provided a framework of evaluation that incorporates methodological tools used to study the impact of ICTs in a sampling of Central American CSOs (Camacho 2000). With the help of initiatives of this kind, it should be possible to take steps both to strengthen the tertiary sector and to create mechanisms for a real appreciation of the impact of ICTs on society. On that basis, we can then build strategies to generate a positive social impact in support of the region's development.

Establishing cooperative frameworks and strategic alliances among individuals and CSOs is another key factor in achieving a positive impact of ICTs on social development. This is the rationale for experiments with innovative applications and methodologies in support of group action, which can provide valuable support for the social use that civil society in Latin

America can make of ICTs. Going down this road implies the difficult task of seeking funding from international donors, who are more interested in installing equipment and transferring technology than in promoting “meaningful use” and effective appropriation of these technologies by the players involved. Thus, the conviction that connectivity is an important but not sufficient element for promoting development is one that is common to the researchers and activists in the region who, under the PAN initiative of the International Development Research Centre (IDRC), contributed their experience to the paper entitled “Internet . . . why and what for?” prepared by Fundación Acceso and IDRC (Gomez and Martinez 2001).

MISTICA: working collaboratively with the Internet

Process and content

The Methodology and Social Impact of Information and Communication Technologies in America (MISTICA) has successfully established a human network of researchers and social activists in Latin America and the Caribbean interested in the social dimension of ICTs. The project was implemented by FUNREDES with support from the PAN initiative of IDRC and Fondation Charles Léopold Mayer pour le Progrès de l'Humanité (FPH).¹¹ Launched in November 1998, the project was formally wrapped up at a meeting in Santo Domingo on March 3, 2001. Although it is now terminated, fruitful exchanges have continued between researchers and activists who constitute the MISTICA network, and this network will now serve as the basis for implementing the project OLISTICA, the Observatory in Action of Social Impacts of ICTs in Latin America and the Caribbean.

MISTICA has experimented with a methodology for coordinating virtual communities, one that combines information and communication resources so as to offer solutions to linguistic obstacles, reduce information overload and accommodate distance participation in face-to-face meetings.

Recognizing that “process” is at least as important as “content” in social movements, MISTICA has sought to strike a fair balance between the objectives of form (methodological approximation) and content (strengthening social groups), and indeed this balance is one of the critical parameters of the project. MISTICA has in this way positioned itself “at the frontier between social research and field action”, with the clear goal of combining both aspects in order to achieve coherent results. Far from producing a mere think tank unconnected to reality, the project has sought to encourage high academic quality among activists in the field as an essential prerequisite for systematizing the experiment.

Although this paper will not attempt to analyze the content of the discussions (for further details see Pimienta 2001), we may note that the issue of the social impact of ICTs in the context of globalization is the central motivating theme of participants in MISTICA. Because there has been

controversy within the virtual community about the use of the term impact (because of its mechanistic and unidirectional connotations), a matrix has been devised that better expresses the causal and systemic relationship between ICTs and society. The following “principal axes” of analysis have therefore been taken into consideration:

- Education
- Democracy
- Governance and civic participation,
- Language and culture
- Health

The matrix also includes the following “horizontal axes” superimposed over the above issues:

- Gender
- Socially disadvantaged groups
- The environment

Some legitimate doubts have been raised to the effect that this scheme is still too rigid and that, because it embodies a non-neutral Cartesian approach, it seeks to classify rather than to debate and innovate. At the same time, it has repeatedly been observed that culture and language are concepts that require deeper analysis and that the matrix, in these terms, leaves indigenous cultures and languages subordinate to what are considered dominant languages (unfortunately the experiment’s multilingual capacity did not allow translation into any indigenous language).

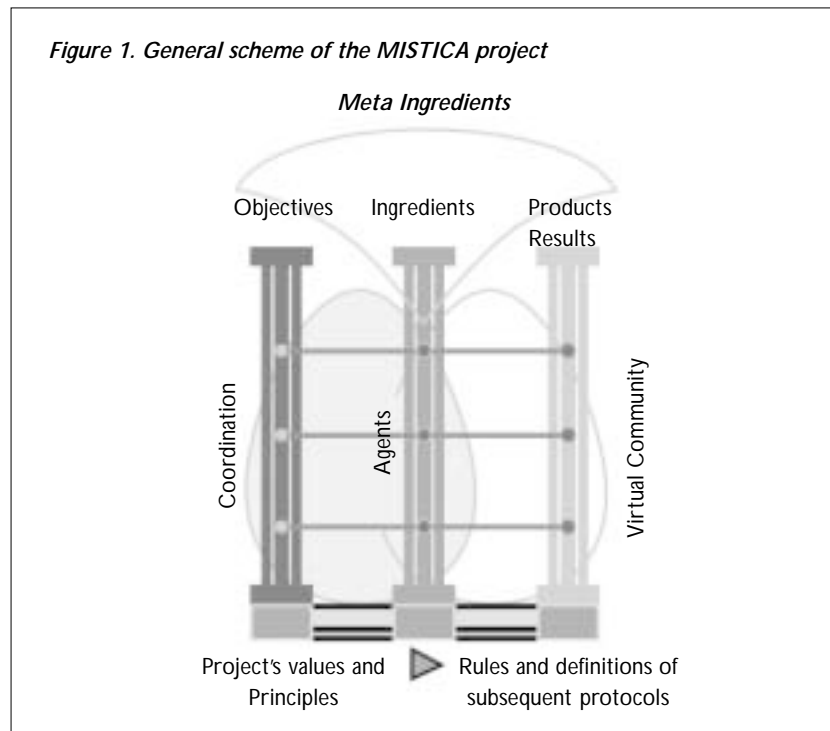
The debate did, however, achieve a degree of consensus. In the summary record of discussion, a common thread emerges from the multiplicity of views:

There is, then, a permanent challenge for a civil society that is searching for an alternative model of development not only to develop its own experiments and instruments (for which the flexibility of ICT offers certain advantages), but also to lobby for its interests and to exert pressure on decision makers. . . . This means that we must work to ensure that ICTs serve to improve living conditions, by proposing alternative models of development that will respect diversity and promote equity, that are in harmony with nature and that will allow sustainable human development (Comunidad Virtual MISTICA 1999).

The general scheme of the MISTICA project

Figure 1 offers a schematic presentation of the fundamental concepts of the MISTICA project. The three pillars represent the “objectives”, “ingredients” and “expected products” from the project, while the oval shapes that intersect in the middle of the diagram represent spheres of responsibility, both for

“project coordination” and for the “virtual community” (VC). The pillars rest on two bases, one situated on the side of coordination and the other on the side of the VC. The first represents the “founding principles” of the project, while the second represents the “VC rules” together with the “definition of subsequent protocols”. At the top, in an expandable open space, are the “meta-ingredients”, the methodological component of the project.



The following more detailed discussion of these components illustrates the wealth and complexity of this experiment.

Project objectives

The project had three basic objectives:

1. To strengthen social players using ICTs in the region by working cooperatively and structuring information relevant to this group.
2. To constitute a human network for research and appropriation of ICTs in order to produce and interpret social changes, with the capacity and the information resources to undertake collaborative work.
3. To conduct regional analyses of the social impact of ICTs and establish an agenda of recommendations and proposals.

A series of secondary or methodological objectives accompanied these three principal objectives. They were as follows:

- To design, apply and validate a methodology for articulating VCs and facilitating distance participation in face-to-face meetings
- To create a decentralized information network on players, projects and activities relating to the social impact of ICTs in Latin America and the Caribbean.
- To produce a regional contribution to the “Society and ICTs” workshop of FPH.
- To reinforce management of the Communications and Information System of the Alliance for a Responsible, United and Plural World.
- To define an agenda of priorities for the challenges facing the region in developing ICTs with a view to their social impact, integrating the gender perspective and addressing other disadvantaged groups.
- To conduct preliminary studies and pilot projects for the analysis of ICT impact in the region from different viewpoints, as a basis for discussion during meetings.

The virtual community

The VC consists of individuals who are willing to devote time to participating more or less actively in the collective adventure of sharing experiences and attempting “distance collaboration”. By the end of August 2000, the VC consisted of 215 people.¹² At the outset, the number of subscribers was larger (311), but at the end of the Effective Management of Multilingual Electronic Conferences (EMEC) experiment (when translation and synthesis facilities were eliminated) several non-Spanish-speaking participants, many of them in the United States, withdrew from the list. In terms of gender composition, in August 2002, 65 percent of participants were male and 35 percent were female, a figure consistent with the aggregate gender data on the overall use of the Internet, indicating a slight increase in female participation.

All the messages that have circulated within MISTICA from its beginnings are kept in the VC’s virtual memory, which is stored on the FUNREDES web server.¹³ At the time this paper was prepared (April 2001), the VC had contributed more than 2,000 messages to the collective discussion. Table 1 shows the number of messages sent to the list up to August 2000, which amounted to an average contribution of nearly two messages a day, which is a creditable performance for a VC of this kind. (We feel that a figure lower than 0.25 might suggest a lack of interest on the part of participants; on the other hand, a rate above 4 could become an annoyance for some.) Table 1 also illustrates the significant growth in the percentage of subscribers contributing messages, compared to January of the same year, although the percentage remains below expectations for a participation-oriented experiment (the figure is, however, relatively high in comparison with similar discussion lists.)

Table 1. Message contribution by the MISTICA virtual community

	<i>January 2000</i>	<i>August 2000</i>
Number of members of contributing messages	70.0 (27%)	117.0 (38%)
Average number of contributions per member	2.5	3.3
Total number of contributions	545.0	1,029.0
Maximum number of contributions per participant	47.0	8.4
Average number of contributions per day	1.8	1.9

Table 2 shows the number of subscribers by country and region, of a total of 256 in January and 215 in August. The English-speaking Caribbean, Puerto Rico and Brazil are clearly underrepresented, despite special promotional efforts. There has also been a sharp drop in the number of subscribers in North America, as noted above.

Table 2. Number of subscribers by country/region

<i>Country/region</i>	<i>01/2000</i>	<i>08/2000</i>	<i>Country/region</i>	<i>01/2000</i>	<i>08/2000</i>
Africa	1	4	Honduras	4	2
Argentina	22	25	Mexico	27	29
Bolivia	4	3	Nicaragua	2	2
Brazil	8	9	North America	28	9
Francophone			Paraguay	3	2
Caribbean	10	13	Peru	9	10
Anglophone			Uruguay	2	1
Caribbean	1	2	Venezuela	31	23
Chile	11	14	MISTICA ¹⁴		
Colombia	10	6	team	17	10
Costa Rica	5	6	International		
Cuba	3	3	agencies	6	6
Dominican			Unknown		
Republic	17	13	origin	4	–
Ecuador	8	6	Oceania	–	1
Europe	14	16			
El Salvador	3	0			
Guatemala	3	2			

Table 3 shows the age distribution of participants. Considering that MISTICA is a community of ICT specialists, subscribers are for the most part young (more than 25 percent are under 30 years of age and more than 50 percent under 38). Yet the trend towards the end of the experiment (as shown in the column for August) showed an increase in the average age of subscribers.

<i>Age</i>	<i>January 2000</i>		<i>August 2000</i>	
	<i>Number</i>	<i>Percentage</i>	<i>Number</i>	<i>Percentage</i>
< 25	25	9.8	17	7.9
26–30	44	17.2	27	12.6
31–35	33	12.9	29	13.5
36–40	54	21.1	46	21.4
41–45	39	15.2	28	13.0
46–50	30	11.7	23	10.7
51–55	17	6.6	23	10.7
> 56	10	3.9	14	6.5
Unspecified	4	1.6	8	3.7

Finally, the VC model allowed registration in several languages simultaneously. The great majority registered in Spanish (244), followed by English (24), French (15) and only 2 in Portuguese. Considering the great effort that went into keeping MISTICA multilingual, it is disappointing that the proportion of non-Spanish-speaking participants was not higher.

Project coordination

Coordination of the MISTICA project involved a range of collegial roles. Two central features of the approach to this experiment were to value the human individual as the centre of all activity and to involve VC participants actively in specific undertakings. The general coordination group was strategically important for designing the content while reflecting as faithfully as possible the messages from the VC, in order to keep the process permanently updated; the moderators group had to ensure compliance with established rules to keep the electronic conferencing system operating smoothly; the EMEC group was responsible for synthesis and translation; the facilitation and leadership team had to maintain the pace of the electronic conference, following predetermined agendas; the webmaster was responsible

for the project's web site; and finally, the Participation at a Distance (PAD) group looked after distance participation during face-to-face meetings.

Project ingredients

MISTICA is much more than a VC. The project was constructed around a number of ingredients that can be classed under the categories of communication, information and action.

Communication

MISTICA was characterized from the outset by a constant flow of communication, both within and beyond the VC. True to its goal of fostering a communication culture that is respectful, democratic and focused on topics of general interest, the project coordinators went to great lengths initially to explain the rules that communication would have to meet, and this resulted in an unprecedented level of discipline and cohesion within the VC. The moderators, for their part, used the EMEC tool (see below) effectively and patiently to ensure that contributions were consistent with the best standards of etiquette in the use of electronic lists.

Recognizing that VCs are not a substitute for physical communities, but rather a potential complement to them, the coordinators held two face-to-face meetings in the Dominican Republic. At the first meeting, held in the beautiful seaside area of Samaná in April 1999,¹⁵ the objective was to finalize discussions already underway within the VC and to put the outcome into an instructional document called Doc-Sam,¹⁶ which was a kind of "stream of consciousness" report of the meeting that took the form of a letter to a fictitious friend about the project. The second meeting, which was held in Santo Domingo in March 2001,¹⁷ established a favourable climate for the gradual transition from the end of the MISTICA project to the establishment of the OLISTICA regional observatory.

Both meetings were experimental in nature, and their objective was to lay the ground for a cooperative working approach among the people participating in the project. As well, they could be called "new paradigm meetings" because they included the following innovative ingredients:

- There was no hidden agenda – there were no objectives other than those that were publicly stated.
- Virtual meetings were held before and after the face-to-face session to establish the basis for the meetings and provide input for the working agendas.
- Participants were selected against established criteria (essentially in light of their participation in the electronic discussion) with special sensitivity to achieving balance in terms of gender, region or topical specialization.

- All documentation on the meeting was delivered well in advance, despite the fact that the selection criteria meant that some elements were identified only shortly before the meeting itself.
- Proceedings were conducted without any hierarchy among participants and in accordance with clearly defined democratic rules (without giving precedence to people in positions of power who might have used this to overstep their authority).
- People not invited to the meeting were able to participate through PAD.
- A summary of discussions was posted on the Internet on the same day as the meeting: in this way, information from the meeting was not only stored electronically but was available immediately on the public web server.

While these were far from a “perfect” meeting, MISTICA succeeded in creating and disseminating an alternative model for synchronizing communication in order to foster a spirit of collaboration in the region, linked to the catalytic role of ICTs.¹⁸

Information

The way in which the MISTICA information flow was structured was of vital importance to the success of the project. The web site could be accessed in four different languages (Spanish, French, English and Portuguese) and offered more than 70 Mb of information on more than 700 pages stored on the FUNREDES public server.¹⁹ Up to August 2000, the site was visited more than a million times, achieving an average of 5,000 hits per day (this figure is rising: in May 2001, the average number of daily visits was about 8,000).²⁰ Thus, far from being merely a static depository of information, MISTICA offers a highly organized “cyber library” of contributions from the VC (about 15 percent of the total volume of information) plus access to a great variety of documents representing the results of the project’s research and dissemination components, all of which are available on the Web.²¹

The MISTICA clearinghouse (or *metasitio* in Spanish)²² is organized as a database and offers a user-friendly interface for online information about the social impact of ICTs in the region. The database currently consists of a pilot sample with some 100 entries, including a list of researchers, activists, projects, events and institutions. If further funding becomes available, it is hoped that this clearinghouse can become an essential international source of reference (the database was designed so that every contribution is first previewed by a moderator team that selects and organizes the information into different fields according to its particular subject matter).

In addition, a listing of more than 1,000 bibliographic references on ICTs and sustainable development in the region has been published, thanks to the generosity of one of the community’s members.

Action

The action component was from the outset one of the greatest ambitions of the MISTICA project. The process of building up a human network and establishing permanent dialogue is something that many people have contributed to very actively. In addition, certain indicators and personal communications show that MISTICA has made an unseen but very significant contribution to social capital formation by promoting “bonding” in small groups within and beyond the VC. This process has been going on behind the scenes, as it were, and even the project’s coordinators have not been fully aware of its impact and scope.

MISTICA has sparked another form of action known as Yanapanako.²³ The pilot applications, as they were called, constituted an innovative form of financing for small action-research projects. The selection process involved a competition and a jury consisting of the programme coordinator plus three volunteer members from the same VC, who evaluated the proposals. Initially conceived as analytical studies or applications of methodology designed to evaluate the social impact of ICTs, the selection criteria were later expanded to include the following areas:

- Fostering the empowerment of citizens
- Generating interaction and synergy among players in the field
- Creating spaces of interdependence between sectors of society
- Encouraging the preservation of identities
- Fostering the growth of local autonomy
- Maintaining a high social content directly relevant to existing social processes
- Encouraging diversity and a holistic view of the three horizontal axes (gender, environment and disadvantaged social groups), languages and cultures, opportunities for action, activities and lines of work
- Being proactive, i.e. to produce concrete results in terms of the social appropriation of ICT
- A process of continual evaluation

Nine proposals were evaluated, of which six were selected for financing with approximately US\$10,000 each. These projects were located in Argentina, Bolivia, Brazil, Mexico, Nicaragua and Venezuela; and they explored a broad variety of issues, taking a social vision of the use of ICTs: children’s rights, indigenous communities, public health, civic participation and electronic governance, the constitution of a VC of postgraduate students working on development issues, and a proposal for participatory action research for establishing a telecentre. Detailed information on each of these pilot applications, including an update on each experiment, technical reports and contact information, can be found at the Yanapanako project-monitoring site.²⁴

From the outset, an effort was made to encourage cross-fertilization among these pilot applications, as well as between them and the rest of the community, but it was not very successful in terms of sparking collaboration. The particular nature of these projects, which required a high degree of technical sophistication, taken together with the shifting environment, economic constraints and the internal organizational structure of the NGOs participating in the experiment, meant that many of the results and processes were not socialized in time (as was stated by one of the pilot application managers, who apologized for the fact that his results were late and explained that he did not feel comfortable sharing his particular problems with others). On the basis of this concrete experience, there is a need for further exploration of the conditions needed to create a climate of trust or confidence of the kind that will produce better communication during the execution of proposals on the use of ICTs and in this way, contribute to the success of the OLISTICA observatory, as will be discussed below.

The meta-ingredients of the project

The methodological component of the project involves essentially the implementation and evaluation of the EMEC and PAD methodologies, which are described below:

*EMEC: Effective Management of Multilingual Electronic Conferences*²⁵

The EMEC methodology,²⁶ originally designed by FUNREDES and Enda-Caribe in 1997, allows electronic conferences to be better focused and to avoid information overload. It also improves the flow of communication within VC by allowing the use of multiple languages. It produces a synthesis of each contribution, and this is translated manually into the four languages used in MISTICA.²⁷ At the same time, the original contribution is machine-translated and the full set is placed on the web page. Finally, the user receives by e-mail a brief descriptive synthesis of every contribution in the language he or she selected at the time of registration, together with links for accessing original contributions in the preferred language.

The human component is a key factor in EMEC, both for summarizing the ideas in the original messages and for translating those summaries from one language to another. Although the methodology represents a great challenge, its potential is enormous if we consider that it can enhance communication across language barriers and thereby encourage diversity in virtual environments, which tend to be weakened by the homogeneity of their internal structure. The costs associated with this critical human factor are quite high: it is estimated that initially about US\$20 was spent processing every message that was circulated to the list. However, with automation of some tasks, these costs were eventually reduced by about 50 percent. On the basis of this experience, a new version of EMEC is now being developed,

one that will be not only more efficient but more effective because it can be tailored to each user according to his or her personal needs and preferences.

PAD: Participation at a Distance

PAD²⁸ is the methodology for coordinating a conventional face-to-face meeting with an electronic conference so that members of the VC who are unable to attend in person can follow the proceedings and make contributions in real time. The main components of this methodology are the PAD-out (the human interface that gathers the information in the physical meeting and directs it to the electronic-conference) and the PAD-in (the human interface that receives the responses from those in remote locations and passes them to the group in the meeting). The two pilot tests performed by MISTICA did not achieve the desired level of interaction.

Results of self-evaluation

Self-evaluation continues to be an important factor for the success of MISTICA. A series of questionnaires were distributed by e-mail as well as stored on the public server,²⁹ on the basis of which the project coordinators were able to gather participants' opinions, which were then fed into the process during the course of the project.

Interim evaluation

The questionnaire that was distributed midway through the project included a list of positive, neutral and negative terms and asked participants to rate MISTICA against those terms on a scale of 1 to 10. The response rate to the questionnaire was 14.1 percent of subscribers. MISTICA was seen as "original", "creative" and "ethical" (positive ratings), but it was also viewed as "too theoretical", "messy" or "disorganized", and "difficult to understand" (negative ratings). In neutral terms, MISTICA was considered "transparent", "democratic" and "methodical". From this evaluation, it emerged that participants gave the greatest priority to constituting a human network, establishing conditions for collaboration among players in the field, and creating a decentralized information network with data on players, projects and activities relating to the social impact of ICTs in the region.

According to this first evaluation, the greatest successes were achieved in terms of facilitating regional thinking about the social impact of ICTs in Latin America and the Caribbean, creating a decentralized information network, and establishing conditions for collaboration. At the same time, several areas for improvement were noted. Some comments suggested that the project management style was too vertical and too centralized. There were also widespread regrets about the low level of participation. It was suggested that the project's coordinators should try to decentralize its management and that they should adopt a strategy to generate more active participation. Some

participants also complained of the coordinators' failure to provide sufficient and clear explanations about the content of the project, and in particular its methodological components, which were seen as an essential part of the project's philosophy. There was also some disappointment about the conduct of debates: this did not surprise the project coordinators, who were well aware that there were other factors impeding discussion during this time.

Final evaluation

In an effort to increase the response rate to the final questionnaire on the project, it was designed with four levels, the first three of which could be answered by e-mail. To complete the fourth level (which required further elaboration in order to establish comparisons with the interim questionnaire), the respondent had to visit the web page. The effort did not, however, translate into a higher response rate, which remained at 14 percent. This suggests that a more direct evaluation system should be used in the future. As well, the coordinators are hoping to obtain funding to undertake ethnographic research involving in-depth interviews so as to discover the subtleties of the impact that a project of this nature can have at both the organizational and individual levels, not only among those participating actively in the VC but also among the great "silent majority".

Among those responding to the questionnaire, there was a strong consensus that MISTICA was successful and that, with the addition of the components described above, it has fulfilled the needs already identified in the field. It was also clear that the impact of this project extends well beyond the workings of its VC. At the same time, the survey demonstrated clearly that the continuous flow and systematization of information about the social impact of ICTs in the region is important to users. With further funding, this clearinghouse or data repository function would remain accessible to interested users.

This final survey revealed widespread disappointment over the failure to achieve concrete results in some aspects of the project, in particular with respect to the action ingredient and its subsequent impact on concrete social processes. Subscribers also complained about the low level of active participation, and they seemed to feel, as well, that the discussion topics were sometimes not properly wrapped up, suggesting that there was a degree of improvisation in the conduct of discussions. Although there was clear recognition of the coordinators' efforts to improve the presentation of the project (in particular the web interface), there were still those who felt that the project was conceptually and pedagogically weak. Finally, some suggested that the project could benefit from methodological innovation with simultaneous communication tools such as chat lines.

Evaluation of the methodological components

As essential components of the project, the EMEC and PAD methodologies were subjected to specific evaluation by the VC.³⁰ The EMEC questionnaire yielded some interesting data: a significant proportion of passive participants

(i.e. the 80 percent of subscribers who took no part in discussions) who answered the questionnaire said that they were very satisfied with the methodology because it allowed them to follow VC activities with a minimum investment of time. In contrast, the active participants (less than 20 percent) reported that EMEC became an obstacle to participation because it made proceedings less spontaneous (because of the slight delay in producing the synthesis) and messages were occasionally misinterpreted (as a result of faulty synthesis). This evaluation has been very useful in adjusting the methodology to accommodate different styles of participation and, as noted above, a new and more automated version of EMEC is to be introduced shortly, one that can be tailored to the needs of each subscriber.

The results of the PAD methodology evaluation highlighted the inadequate efforts of the project's coordinators to explain this methodology and their failure to articulate it properly during the first meeting. The comments from that evaluation, plus the lessons learned, led to the introduction of a simplified PAD during the second meeting. Although the methodology was received more kindly than at the first meeting, it did not have the desired effect because it did not achieve fruitful interaction between the remote VC and the participants in the face-to-face meeting.

The gender component

Recognizing that gender definition is intimately linked to particular cultural constructions, the MISTICA project took account of the need to make changes and transformations in individuals' value systems, which still reflect society's patriarchal patterns of thinking and control. Since the exchange of information and the generation of knowledge are a source of wealth and power, the appropriation of ICTs with a gender vision is indispensable for integrating women into the development process on an equal footing.

Although the gender component was not successfully integrated into the continuing evaluation of the project, the following basic principles were stressed from the outset as a means of advancing women's position within the project:

- Encouraging women to participate actively in its different stages
- Differentiating project results, especially those of the human network and the clearinghouse, by gender
- Giving priority to gender issues in the agenda on ICT challenges in the region and establishing forms of participation for women to maximize gender equity
- Explicitly evaluating gender relationships and the way they were addressed during project implementation

The scope and relevance of these priorities during and after project completion are still open to discussion, and there is a clear intention to continue learning from experience.

South–South cooperation

The creative potential of MISTICA gave rise to ISTICAF (*Impact social des TIC en Afrique* – Social Impact of ICT in Africa) as a process of action research. This represented an ambitious programme of field research in seven African countries: more than 200 African activists running ICT projects were interviewed, with the intention of using the results to bridge similar experiments on both continents. ISTICAF represented the first step in opening the door to South–South exchanges. In fact, Rabia Abdelkrim of Enda-Senegal³¹ has already had the chance to explain to the MISTICA VC some of the progress that the organization has made in Africa, where grassroots Internet networks have appropriated ICTs in accordance with their own standards of use and have even managed to become self-sustaining in the absence of external donors. In this way they have laid the foundation for a project that could reproduce the MISTICA experiment, suitably adapted for African conditions and for achieving real articulation between Africa and our region on the issue of the social impact of ICTs.

The MISTICA style

One important contribution of this experiment was its management style. More than just a series of criteria for coordinating a VC, it also involves principles for living and working collectively, based on collaboration, solidarity, respect for diversity and gender equity. Ethics, responsibility and commitment are the basic principles underlying the following criteria of conduct for the MISTICA human network.

The first is active participation and transparency. In the collective process of constructing a network, all institutions and individuals interested in participating must commit themselves with enthusiasm, transparency, and a clear and open mind so as to ensure that everyone contributes and benefits fairly.

The second criterion is leadership and proactiveness. If a VC is to develop, there must be someone to breathe life into it – to stimulate, lead, sustain and coordinate it. In Spanish we use the word *animar*, which comes from the Latin *animus* (soul or spirit), and that is what the coordination team must give to the human network at all times. In other words, team members must be more than active and independent – they must be *proactive*!

The third concerns a common platform. There must be a common platform, a working horizon, some basic principles so that every member of the team will know where the magnetic pole lies. Belonging to the team means subscribing to these principles or this platform, and leaving the team, of course, does not imply abandoning those principles.

Another criterion is the networking culture, which can be characterized by the following elements: prompt and ready use of e-mail; respect for intellectual property and the confidentiality of information and its sources;

openness to criticism and to the collegial decision-making process; the importance of solidarity and independence and self-management, as expressed in genuinely enthusiastic participation.

Finally, for selecting meeting participants, the following basic principles were established: adequate representation of pluralism and diversity; keeping the group to a manageable size so as to foster empathy and collaboration; giving preference to individuals who have participated actively in previous work; maintaining an appropriate balance at all times between individuals and institutions and in terms of gender, diversity of approaches, etc.; and maintaining a clear vision of the compromise between strategy and tactics and between the important and the urgent.

OLISTICA: the Observatory in Action of Social Impacts of ICTs in Latin America and the Caribbean

The dreams that we share, the practices that unite us, the persistently overwhelming reality and the beating hearts that surround us have made this much more than an evaluation, much more than the end of a phase pushing and converting this fabric, where from our limitations and our shortcomings we are willing to lay bare our souls and fight to make this TAZ into a Permanent Autonomous Zone (PAZ)³²(contribution from Sebastián Lara during the Santo Domingo meeting, March 3, 2001).

MISTICA is embarked upon the road to concrete action in the field. The move from observation to an active role in support of CSOs striving for responsible use of ICTs for social development is a difficult but necessary step. At the Santo Domingo meeting in March 2001, much time was devoted to debating the process of transition between these two initiatives.³³ In fact, the failure of the MISTICA VC in terms of participation rates, according to the project coordinators (based on the evaluation results), could be taken as “an indication of a relational crisis of the parent–teenager kind”.³⁴ This sparked some very legitimate questions from the VC about the community’s very structure and about the role that it has played in the decision-making process.³⁵

The soul-searching needed to answer these questions is also an ingredient for making the transition from MISTICA to OLISTICA a symbolic point of departure that, as a process, rests on the social fabric that MISTICA continues to generate, not only through the methodologies that it has tested and the individuals who have access to them, but more importantly through the style underlying the human network that constitutes it, as well as the ethics, principles and values guiding the common commitment to make ICTs a useful tool for sustainable human development.

The general objective of OLISTICA³⁶ is the following: starting from an alternative vision of ICTs, to demonstrate a collaborative approach to building and systematizing field-tested tools for creating a required institutional capacity

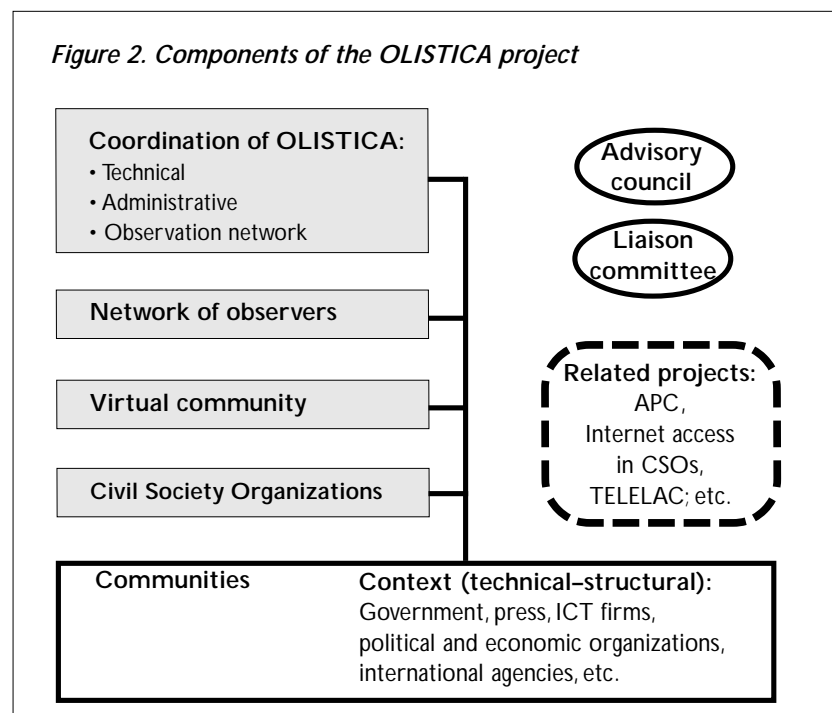
within CSOs to promote the responsible application of ICTs in various aspects of society.

To achieve this objective, OLISTICA is designed as an action-research process constituting a network of observers who, using the appropriate tools, can compile and analyze in a systematic and permanent manner information obtained from the field on the social impact of ICTs. The MISTICA VC will play a critical role in the creation and continual reformulation of the working tools and, by providing a broad-based platform for discussing the results of observation, will lead to a higher level of advocacy and influence as well as stronger organizational capacities in the CSOs benefiting from this initiative.

Figure 2 shows the components of the universe in which OLISTICA will operate:

- The coordination team will supervise and manage the various project components and the established budget. The team will have three functional groups: administrative coordination, technical coordination, and coordination of the observation network.
- The advisory council will be made up of academics, NGO members, community activists and decision makers in the field of ICT policies. They will constitute a group of experts, appointed by the coordination

Figure 2. Components of the OLISTICA project



team, who may or may not be part of the MISTICA VC and who will provide advisory assistance throughout the course of the experiment.

- The liaison committee will represent a permanent channel of communication to ensure active cooperation among various mutually reinforcing initiatives in the region.
- The network of observers will consist of individuals or organizations contracted by the project, or organizations with which the project can establish cooperative arrangements. Its function will be to conduct field observations, test and provide feedback on informational tools and resources designed for this purpose (see ISTICOMETROS below), and contribute to collaborative development of a social vision of the Internet.
- The MISTICA virtual community, which already exists as a human network that is in permanent communication via the Internet, will continue to monitor and support all the other processes for strengthening project components.
- Civil society organizations will provide dynamic social input and will therefore be the main target group of the project in terms of strengthening institutional and advocacy capacities.
- The public outside the MISTICA VC will be able to consult the information contained on the public web server, but people will not participate actively in the VC unless they subscribe to the community. They therefore represent a potential reservoir of project participants and collaborators.
- Communities and context represented in the diagram (government, press, ICT firms, etc.) are not within the direct sphere of influence of OLISTICA, which as explained earlier will work directly with CSOs. Its impact among these communities will depend on actions taken by individuals, groups and organizations that identify with the social vision of the Internet supported by this project.

OLISTICA will adhere to the same methodological principles as MISTICA, which encourage process-based project management so as to maximize participation by members of the VC. Moreover, by combining methodological and content objectives, OLISTICA will take maximum advantage of the potential synergy that can arise within the action-research network.

OLISTICA's budget will allow the coordinators to produce methodological tools (ISTICOMETRIA and ISTICOMETROS), to establish the observers network, the advisory council and the liaison committee; and to prepare a distance participation methodology. Unfortunately, this budget does not provide for continuity of all the programming components of the MISTICA project or for maintenance of its clearinghouse. Nor does the current budget contain an adequate component for advocacy and training. Given the strategic importance of this component, however, we are actively seeking funding for it.

If funding is secured, this training component will allow OLISTICA's products (social vision of ICTs, tools designed and lessons learned) to be converted into instruction manuals and formal and informal learning methods using both printed and electronic resources (online and offline). As it is designed, this training component will produce a profile of trainers that, consistent with the organizational needs of CSOs, will combine face-to-face activities with distance education tools that will take into account:

- sensitizing the sector
- training in the use of distance education tools
- studies of the social vision of ICTs
- methods of analysis and advocacy
- players and programs in the ICT sector
- organizing events of various kinds for awareness and informal education, etc.
- decentralized application
- summarizing experiences
- reviewing teaching materials
- monitoring the subsequent activities of trainers

The following is a more detailed description of how the project will be implemented, focusing on the methodological components that will be developed and the observation network that will use and assess those tools.

ISTICOMETRIA and ISTICOMETROS

ISTICOMETRIA is understood as “the collective effort of OLISTICA project members to develop methodologies and instruments for assessing the social value of ICTs” (Menou 2001) and, as a grassroots process, is an essential part of the project. In methodological terms, ISTICOMETRIA is a series of principles, ethical values and procedures for constructing and using ISTICOMETROS in ways that will place in perspective, from the viewpoint of a decentralized network, the social needs for ICTs and their applications. Validation of these principles and the tools based on them will depend on participation by various players in reformulating them and adapting them to the particular needs and contexts of each user or group of users.

The purpose of ISTICOMETRIA is to analyze the manner and extent to which ICT policies, programmes and activities respond to the values and needs of sustainable human development. ISTICOMETRIA will therefore have to include a systematic and open-ended list of social needs for ICTs and their applications. These principles, in contrast to conventional tools that are limited to measuring social impacts that take many years to manifest themselves (what we call *ticometros*), can be characterized as follows:

- They start from an alternative ideological vision of ICTs, by regarding them as a social instrument and not simply a technical or commercial device.
- The process of construction is collaborative and dynamic, resulting from an interlinking series of action-research activities.
- The testing process allows the instrument to be fully or partially modified. For this reason, they are referred to in the plural, since there can be different types of ISTICOMETROS that offer flexible options depending on the particular case.

Development of these tools will start from a social vision of the Internet, as the cornerstone for future work. In light of this alternative vision, some of these conventional *ticometros* will be analyzed in greater depth so that, on the basis of this information, we can prepare prototypes for ISTICOMETROS that can then be applied in the field. The results from the observation process will be used to reformulate the instruments once again, as the alternative vision is modified in light of experience.

The observation network

Because of its complexity, the observation network is the most sensitive component of the OLISTICA project. That network will have the following responsibilities:

- To maintain an “information watch”, which means observing events and collecting raw data in an organized and ongoing manner.
- To analyze, field-test and critique observations using the tools of ISTICOMETRIA.
- To spread the social vision of the Internet, the instruments used, the reformulation process and the results of its application.
- To contribute to the resource centre and to ISTICOMETRIA.

Although no final decision has been made on how the observation network will be organized, the following dimensions will be taken into account: country, issue, specific cases, stage of the project, type of observer, and type of observation (work, product). The observation approach will follow the scheme of principal and horizontal axes discussed in the earlier section on the MISTICA VC.

In terms of organizing the observation network by specific cases, we consider the following cases to be of interest for a social vision of the Internet:

- Telecentres (emphasizing their particular social characteristics, e.g. the conditions under which a telecentre can be useful for social development)

- Municipal governments (e.g. the conditions under which a “smart cities” programme can be useful for social development)
- Virtual universities
- ICTs in primary and secondary schools
- Civil society networks
- Telemedicine (e.g. expansion or restriction of access to health services)

Facilitation at a Distance (FAD)

The lessons learned from the MISTICA experiment made it very clear to project coordinators that promoting exchanges in virtual space requires an agenda. FAD is intended to move in this direction by considering various characteristics of the face-to-face facilitation process that are suited to asynchronous online interaction (e-mail). We shall begin with a review of the literature to create an open-ended base of knowledge and strategies used by other groups in specific circumstances (to be available shortly on the public web server). At the same time, we shall draw upon experience with the pilot applications (the action components of the MISTICA project) to revisit the shortcomings and the particular circumstances that limited communication in that experiment. With these contributions, and with the advice of experts in critical pedagogy, grassroots education and transformational learning, we shall prepare a series of recommendations on how to construct a virtual space based on mutual trust. This will offer the possibility of exchanges under conditions of equity and balance of power, and above all it will appeal to the human element in computer-mediated communication.

On the basis of these recommendations, we shall design an FAD strategy for OLISTICA that will reflect the particular features of this project and, in particular, the communication flow chart, the players involved, objectives and expectations, etc. The strategy will be implemented together with a continual and participatory evaluation mechanism that will allow for the facilitation mechanism to be monitored over a predetermined period of time so as to derive maximum methodological benefit from this experiment.

Expected products

In terms of the expected products from OLISTICA, the overriding outcome should be to facilitate joint construction of a social vision of ICTs in Latin America and the Caribbean. Collaboration will be a further product of the experiment to the extent that it enables lessons to be drawn about the methodologies and procedures that have facilitated collaboration among the various organizations participating in the project. The observation network's activities will also provide some lessons showing that collaboration is possible, identifying clearly the obstacles and the appropriate mechanisms for integrating distance activities into a VC with a shared vision. The set of tools

described above (in particular ISTICOMETRIA, ISTICOMETROS and FAD) will represent a further valuable contribution of OLISTICA to the current state of knowledge.

Finally, there will be two kinds of evaluation and monitoring. The first will be based on the self-evaluation methodology being developed in MISTICA, which allows continual monitoring by the entire VC. The second strategy will define indicators of success and failure so that every component of the project can be evaluated continually during the life of the experiment.

Conclusion

The conscious and deliberate kind of transparency that we have called “active transparency” has made MISTICA a catalyst that has sparked the enthusiasm of active members, who were able to be co-participants in a style of communication that points to the utopia (as yet virtual) of a better world. It is precisely this shared feeling of solidarity that inspires our confidence and gives us the assurance that this social fabric will set both the map and the course for the road that OLISTICA has yet to take.

At a time of growing complexity – when the collective identity is being constructed as a system of vectors under tension or a “movement of individuals” for whom the universality of interests is a factor of short-term aggregation – research, or rather the ethics and politics of working for knowledge, is becoming a process of metacommunication that, as described by Melucci (1996), can contribute to the practice of freedom. In this space, where sincerity and transparency prevail, the social actor and the researcher meet face-to-face, revealing in the practice of multiple positionings the very reason and the instruments required to articulate collective action. An analytical and critical capacity, communication skills and – why not? – access to ICTs are powerful weapons for resisting and opposing manipulated and manipulative knowledge.

This profound thought underlies the daily experience feeding the hope of collective action in a VC such as MISTICA. Who is doing the research? What or who is the object of social change? Part of the answer to these questions lies in knowledge and in the implementation of new epistemological paradigms. Donna Haraway (1998), for example, speaks of the subjectivity produced by multiple experiences, where what is regarded as absolute scientific truth yields to respect for situated knowledge, which, in permanent tension with these standard-setting networks of knowledge and power, allows the emergence of horizontal alliances, which in turn support collective action.

MISTICA has constructed open-ended, multiple and creative discourse. Yet the co-presence and the feeling of collectivity that emerge in the MISTICA VC are not a sufficient condition for involving more voices in this process of democratic understanding. As Raisa Urribarri (2001), an active member of the VC, put it:

We conceive participation as a human right, but also as a duty. It is a responsibility and a commitment that moves us to involve ourselves actively in projects that we feel are our own. Is this our own project? To feel that something is one's own is very different from signing onto something designed by others. In our opinion, achieving a climate that fosters participation requires an educational process that facilitates the incorporation of people into the project we are promoting. For that, information is vital.³⁷

This comment is food for thought. The fact that most of the subscribers to MISTICA do not make themselves heard (they are passive participants) could indicate a space where insufficient attention has been given to creating an atmosphere of trust, one that will encourage members to exchange their thoughts with each other, a condition that Mezirow (2000) calls a fundamental element of transformational learning. Belenky and Stanton (2000) warn that, by doing away with asymmetry in relationships of exchange (which generally do not manifest themselves openly in learning groups – in their case, adult female students), we risk excluding those who learn by means other than lineally articulated language and thinking. They suggest that returning to a space built on mutual trust, where everyone's arguments are appreciated for their strengths instead of their shortcomings, is a good way to make the learning process more inclusive. As opposed to the belief that a relational environment of this kind is not conducive to sound intellectual work, the authors maintain that the great creativity resulting from "connected learning" does much to strengthen intellectual construction (which they describe, moreover, in terms of patient listening instead of the usual competitive attitude). This idea, although originated in face-to-face situations, seems highly relevant to our concerns about VCs, and will be taken seriously into consideration in formulating the FAD strategy for the OLISTICA project.

Another lesson that we may draw from the collective experience with VCs comes from the humorous expression that sparked so many comments at the final meeting in Santo Domingo: "There's no free lunch!" Who will willingly contribute time and energy to creating a collective space? Who will simply take from it and give nothing in return? In seeking answers to these questions, we may go back to the notion of social capital and how, in virtual spaces, relationships of exchange are established that can turn out to be mutually satisfactory.

The most widely accepted definition of social capital refers to the capacity of individuals to command scarce resources by virtue of their membership in networks or broader social structures (Portes and Landolt 2000). In virtual environments, the transactions that take place are exchanges of information via a constituted network. Once it is distributed and stored, information becomes a public good and, as Kollock (1999) puts it, "consumption" of this information by a user does not diminish the capacity of another user to access it as well. Yet we must still pay close attention to the size of the network, the relative proportion of those who do not collaborate, and the frequency with

which these events occur. If there is increasing apathy in a medium-sized VC like MISTICA, the interest of active participants in contributing to discussion may diminish proportionately. It is clear, then, that many questions remain unanswered. What is it that motivates people to participate actively? How are the rules of reciprocity constructed in virtual environments where interaction is casual and there are no physical markers? And, more importantly, what are the limits to online cooperation and what are the conditions under which a collectivity comes together to build social capital instead of parasitically squandering the efforts of a few members, something that will undermine the effectiveness of exchange?

We have yet to find answers to these and many other questions. We may daydream about utopia – but are there limits to our desires? The unknown virtual landscape into which MISTICA and OLISTICA are venturing in Latin America and the Caribbean will make the journey even more interesting. Robert Putnam (2000) notes that, although telecommunications and the incredible growth of network connections are the foundation for the community utopia, there are a number of unresolved trends that are not necessarily consistent with achieving that dream (e.g. the technological divide and the passive entertainment that undermine social structures). Noting that the lack of non-verbal information can diminish the sense of trust in virtual spaces, he suggests that computer-mediated communication may increasingly complement but will not replace our characteristically human face-to-face interaction.

We close with the question posed by Sebastián Lara (2001), another active member of the MISTICA VC: How can we move on from connectivity to affectivity?

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Notes

1. <<http://funredes.org/mistica>>.
2. <pimienta@funredes.org>. Fundación Redes y Desarrollo, Dominican Republic, <<http://funredes.org>>.
3. <lbarnola@idrc.ca>. International Development Research Centre, Canada, <<http://www.idrc.ca/pan>>.
4. E-mail, discussion lists, bulletin board systems (BBS), multiple-user dungeons (MUD), newsgroups, Internet relay chat (IRC), etc.

5. Among other essays that deal with the complexity surrounding identity negotiation in CMCs, we may cite some specific studies on gender (O'Brien 1999), racial indicators in online communities (Burkhalter 1999), fictitious identities (Donath 1999), and social power and hierarchy (Reid 1999).
6. Although it is too soon to venture any generalizations, we are now witnessing the proliferation of non-profit groups, operating in a completely decentralized way, that are providing independent multimedia coverage at both the global and local levels for growing numbers of social movements opposed to the intrinsic contradictions and asymmetries of the multinationally supported neoliberal economic model. We refer here in particular to the "indymedia" (independent media centres) <<http://indymedia.org>> that originated in North America but are now proliferating in cities throughout the world.
7. "Informationalism" is the development mode, characteristic of our time, that is based on optimizing the combination of knowledge generation, information processing and symbolic communication (Castells 1996).
8. <<http://www.apc.org>>.
9. <<http://www.colnodo.apc.org>>.
10. <<http://www.acceso.org>>.
11. <<http://sentenext1.epfl.ch/fph>>.
12. Since the MISTICA VC is open to the general public, many more people have signed up in recent months.
13. <<http://funredes.org/mistica/castellano/emec/produccion>>.
14. Records on present or past participants in project execution are not kept by country of origin.
15. For more information on the Samaná meeting, visit <<http://funredes.org/mistica/castellano/eventos/samana>>.
16. Doc-Sam on the Samaná meeting: <http://funredes.org/mistica/castellano/cieroteca/tematica/esp_doc_sam2_1.html>.
17. For information on the meeting in Santo Domingo, visit <<http://funredes.org/mistica/castellano/eventos/reunionmist>>.
18. We know of a similar experiment conducted in Nicaragua where a distance participation system was used during a meeting between the rural press and community groups, sponsored by the Nicaraguan Sustainable Development Network <<http://www.sdnnic.org.ni>>.
19. The FUNREDES server is an IBM Netfinity 3000 operating on a Linux platform that supports a Postgre SQL and PHP database management tool.
20. For up-to-date statistics on access to the FUNREDES server, visit <<http://funredes.org/internet/stats/es/statistics.html>>.
21. The list of documents on the MISTICA project, which can serve as a framework for thinking about the social impact of ICTs in the region, is found at <<http://www.funredes.org/mistica/castellano/ciberoteca>>.
22. The clearinghouse is available at <<http://funredes.org/mistica/metasisio>>.
23. Yanapanako means "helping each other" in the Quechua language, and represents the idea of mutual support between the MISTICA pilot applications <http://funredes.org/mistica/castellano/aplicaciones_pilotos>.

24. <http://funredes.org/mistica/castellano/aplicaciones_pilotos/seguimiento.html>.
25. *Gestión eficiente de las conferencias multilingües* in Spanish.
26. <<http://funredes.org/funredes/emec.htm>>.
27. The following link explains the EMEC methodology as it was implemented in the MISTICA VC: <<http://funredes.org/mistica/castellano/emec/documentacion>>.
28. A full description of PAD, given during the MISTICA meetings, as well as other documentation that provides more schematic and pedagogical information on this methodology, can be found at <<http://funredes.org/mistica/castellano/ciberoteca/metodologia>>.
29. The questionnaires and evaluation results are listed on <<http://funredes.org/mistica/castellano/evaluaciones>>.
30. The EMEC evaluation can be consulted at <<http://funredes.org/mistica/castellano/evaluaciones/evalmec.html>>, while the PAD evaluation is found at <<http://funredes.org/mistica/castellano/evaluaciones/eval02.html>>.
31. <<http://www.enda.sn>>.
32. TAZ is "Temporary Autonomous Zone"; PAZ, standing for "Permanent Autonomous Zone", is also the Spanish word for peace.
33. <<http://funredes.org/mistica/castellano/eventos/reunionmist/resumen.html>>.
34. <<http://funredes.org/mistica/castellano/evaluaciones/reunionfinal03.html>>.
35. On this point see the comments of Raisa Urribarrí (2001) in "The MISTICA VC: Between eating and cooking"
36. The OLISTICA project, also financed by the PAN initiative of IDRC, began in June 2001 <<http://funredes.org/olistica>>.
37. <<http://funredes.org/mistica/castellano/eventos/reunionmist/comer.html>>.
38. <<http://funredes.org/mistica/castellano/creditos.html>>.
39. <<http://funredes.org/mistica/castellano/emec/participantes>>.

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- <<http://www.acceso.or.cr/PPPP>> *Internet... ¿para qué? Pensando en las Tecnologías de Información y Comunicación para el Desarrollo en América Latina y el Caribe*, Fundación Acceso y el CIID/IDRC.
- <<http://www.apc.org>> Association for Progressive Communications, (APC).
- <<http://www.colnodo.apc.org>> COLNODO.
- <<http://www.enda.sn>> Enda-Senegal.
- <<http://funredes.org>> Fundación Redes y Desarrollo (FUNREDES).
- <<http://funredes.org/funredes/emec.htm>> original EMEC project.
- <<http://funredes.org/internet/stats/es/statistics.html>> statistics on access to the FUNREDES server.
- <<http://funredes.org/mistica>> Metodología e Impacto Social de las Tecnologías de la Información y de la Comunicación en América (MISTICA).
- <http://funredes.org/mistica/castellano/aplicaciones_pilotos> MISTICA pilot applications.
- <http://funredes.org/mistica/castellano/aplicaciones_pilotos/seguimiento.html> monitoring page for pilot applications, MISTICA.
- <<http://funredes.org/mistica/castellano/ciberoteca>> analytical papers on the impact of ICTs in the region, MISTICA.
- <<http://funredes.org/mistica/castellano/ciberoteca/metodologia>> methodological support papers for MISTICA, including EMEC and PAD.
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- <<http://funredes.org/mistica/castellano/creditos.html>> credits for people involved in the MISTICA (FUNREDES) project.
- <<http://funredes.org/mistica/castellano/emec/documentacion>> EMEC methodology for the MISTICA virtual community.
- <<http://funredes.org/mistica/castellano/emec/participantes>> directory of members of the MISTICA (FUNREDES) virtual community.

- <<http://funredes.org/mistica/castellano/emec/produccion>> productions of the MISTICA virtual community.
- <<http://funredes.org/mistica/castellano/evaluaciones>> evaluations of the MISTICA project.
- <<http://funredes.org/mistica/castellano/evaluaciones/eval02.html>> evaluation of PAD (MISTICA).
- <<http://funredes.org/mistica/castellano/evaluaciones/evalemec.html>> evaluation of EMEC (MISTICA).
- <<http://funredes.org/mistica/castellano/evaluaciones/reunionfinal03.html>> evaluation of the wrap-up meeting from the MISTICA coordinators' viewpoint.
- <<http://funredes.org/mistica/castellano/eventos/reunionmist>> MISTICA meeting of Santo Domingo (March 2001).
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- <<http://funredes.org/mistica/castellano/eventos/reunionmist/resumen.html>> Summary of proceedings of March 1, 2001, MISTICA meeting at Santo Domingo.
- <<http://funredes.org/mistica/castellano/eventos/samana>> MISTICA meeting of Samaná (April 1999).
- <<http://funredes.org/mistica/metasitio>> clearinghouse of the MISTICA project.
- <<http://funredes.org/olistica>> Observatorio Latinoamericano y Caribeño del Impacto Social de las TIC en Acción (OLISTICA).
- <<http://www.idrc.ca/pan>> PAN initiative of the International Development Research Centre (IDRC).
- <http://www.idrc.ca/pan/fr04434_s.htm> *Research programme, impact of ICTs on civil society (Central America): Methodological framework*, Fundación Acceso (by K. Camacho).
- <<http://indymedia.org>> independent media centres.
- <<http://www.sdnnc.org.ni>> Red de Desarrollo Sostenible de Nicaragua.
- <<http://sentenext1.epfl.ch/fph>> Fondation Charles Léopold Mayer pour le Progrès de l'Humanité (FPH).