

"Electronic Democracy"

BUENOS AIRES AND MONTEVIDEO

by **SUSANA FINQUELIEVICH**

Electronic democracy and electronic governance are new buzzwords, coined to describe the increasing use of communication technologies for improved internal management, citizen communication and popular participation in governments. Such initiatives have recently been taking place in Buenos Aires and Montevideo, involving both similarities and differences and achieving mixed results. A binational team has now done comparative research on these experiences, directed by Dr. Susana Finkelievich of the Gina Germani Research Institute, Faculty of Social Sciences, University of Buenos Aires.¹

MANY CITIES ARE BEING TRANSFORMED into communication hubs using communications technologies. And many municipal governments are converting themselves into information networks that facilitate administration, communication and interaction with other levels of government and with citizens. In some places, these changes are accompanied by attempts by civil society organizations (CSOs) and regional and nation-

al authorities to adopt various versions of "electronic governance."

"Electronic democracy" as a means of improving the responsiveness and reliability of political institutions has attracted the interest of academics, politicians and activists since the 1960s. In that era, some activists who believed in the democratic potential of the new technologies turned to a wide variety of communications media (such as free or

pirate radios). Since then, various experiments with remote access to information, teleconferencing technology and interactive cable television have provoked frequent debates on the advantages and risks of these technologies to social and political processes (Tsagaroussianou, 1998).

Many of the experiments in electronic democracy, including those examined in this study, share a number of characteristics:

- They are perceived by the social actors who initiate or participate in them as a means of revitalizing democratic policies that, for a variety of reasons, have weakened and lost their impetus and vigor.
- They are seen as a means of streamlining the bureaucracy, enhancing the transparency of government and achieving consensus among citizens.
- They are local or regional in character and associated with urban or metropolitan territories, even though they may also comprise elements of the national strategy;
- They are based on similar technological infrastructures, even though they may differ in their forms of organization.

The cities of Buenos Aires and Montevideo were selected for a comparative case study, since their geographic proximity and cultural similarities clearly highlight the differences and similarities in the urban and social uses of these technologies.

The objective is to evaluate the impact of the integration and use of information and communication technologies (ICT) in local government and in communication with citizens, as well as in the practices of CSOs seeking to be interlocutors with governments. The research team investigated the use and effective scope of ICT in the internal government administration and in local initiatives to bring the population into the information age. It analysed the use and scope of ICT in communication between local governments and civil society and in community organizations. Both primary and secondary data were collected and processed, including electronic surveys, face-to-face and electronic interviews with municipal authorities, reviews of the development of municipal web pages, study of the cities' projects to promote the integration of ICT, and monitoring of trends in the use of ICT by community-based organizations.

ICT IN LOCAL GOVERNMENT

Experiments in electronic government began in the second half of the 1990s. In Europe, the Telecities Project was launched and funded by the European Community to enable local governments to pool their resources and experiences in the use of ICT for urban administration. In the United States, examples of electronic government became more frequent, not only to facilitate local management, but also in an attempt to overcome the "democratic deficit"—the

lack of interest and involvement of citizens in public affairs.

The objective is not only to open web portals or websites containing data on the State and to facilitate internal management processes. Electronic government means placing the State, at the

Electronic government is not about putting data on websites, but about changing the political and institutional structure so citizens can access needed information.

national, regional or local levels, on the Internet to help bring about a change in the political and institutional culture and to enable citizens to access information that is of interest to them. For these sites and tools to be genuinely viable, the first requirement is a technical one—to ensure that data entered would be secure en route through cyberspace. Then there are several broader social requirements—to ensure that all citizens have the necessary training to navigate on the Internet; to allow them to have access to information tools, whether in their homes or through Internet centres or other public facilities; and to ensure that there is adequate communication with an increasingly important group of social actors, namely, citizens' networks.

The various policies adopted by national and local governments on the

use of ICT are expressly or secondarily intended to address problems of governance, either directly or indirectly. Information and communication technologies are key elements of a government's decentralization policies. It is assumed that their use would enhance efficiency and transparency in government administration and communication with citizens, by promoting greater accountability, transparency, predictability, integrity, etc. Consequently, municipal governments in their political actions must seek alternative approaches to the traditional models of public administration. This search comes up against a number of difficulties, including the identification and/or improvement of vehicles for participation and consensus and the modernization of management technology.

Buenos Aires

An excellent case study is the city of Buenos Aires, which began a process of greater local autonomy in urban management in 1996. Under the provisions of the City Charter, the post of Head of Government was created, and a Decentralization and Modernization Program was initiated. As part of that, Management and Participation Centres were established as territorial units of political and administrative management (known in Spanish as CGPs: Centros de Gestión y Participación). Among the most important goals of the decentralization is "to permit citizens greater access to and participation in government decisions

through the use of information and telephone networks". This opened a new field for the implementation of ICT.

The programme provided for computerizing the CGPs by 1998, establishing a communications network (Intranet), developing a system for receiving complaints using Internet-compatible technologies, providing training in the use of information resources and selecting a staff to operate the information system in the Centres. These objectives have only been partially met, are only now beginning to be implemented or have still not been implemented. The Intranet has still not yet been installed. The complaint system was streamlined. The CGPs have been computerized but their operation is uneven. In some cases, technological problems have arisen and in most cases not enough use is being made of available equipment. Nevertheless, processing of

Information and communication technologies are key elements of a government's decentralization policies.

the citizens demands for the resolution of problems of infrastructure and services improved markedly with the use of the Internet, which in turn had a positive impact on the flexibility and rapidity of the system.

Communication and connections between the Executive and the decen-

tralized units are very precarious. Internal communication in the organization using ICT is practically nonexistent, as is participation in Buenos Aires municipal government site. It has been openly stated that decisions are taken "top down" without the participation of the CGPs. The result has been the underutilization of installed capacity and a lack of training and adequate support systems. If no changes are made to these management structures, it will be difficult to achieve the organizational changes needed to optimize the use of the new technologies.

Computerization of the legislature

The Legislature of the Autonomous City of Buenos Aires was established on 10 December 1997, ushering in the political autonomy of the City. One of the innovations in the Legislature is the installation of a modern information system that controls the operation of services in the Legislative Building, transforming it into a "smart building". In addition, the building was computerized and an internal network established for the Legislature.

The Intranet has come up against obstacles and delays. One of the principal obstacles is the lack of trained personnel. Another is the excessive time that available personnel spend on help desk tasks. Management has a staff of 25 employees, most of whom provide maintenance and technical support for the 600 terminals in the network. Few staff members are available to design and develop new applications. The persistence of anachronistic

practices and closed channels of information presents another obstacle. This situation is made worse by the ignorance of many legislators and officials of what an Intranet is, and by the rapid growth of the Internet website, which is used as an information input in place of the inadequate Intranet service. Management of content is the exclusive responsibility of the Press Department. This means that the Intranet function is merely informational and not interactive.

From a management standpoint, there have been four main consequences in the Legislature.

First: the emergence of resistance and conflicts, since the introduction of technologies has not been accompanied by a comprehensive process of institutional modernization covering all areas of government.

Second: the promotion of greater involvement and new types of cooperation and organization that result in greater efficiency in the discharge of institutional responsibilities.

Third: greater availability of information, both to officials of the institution and to a portion of the citizenry.

Fourth, a negative consequence: it may serve to deepen even more the crisis of lack of faith and apathy and pose more of an obstacle than an incentive to citizen participation. The problem lies in the delay in making available instruments to promote effective civil participation. Tools that do not exist are promised (live transmissions, forums, chat rooms) and

other tools (public hearing applications, Strategic Plan, linkages with the Government Decentralization Program, etc.), but then are overlooked and not developed.

GCBA Technology 2000 Centres Program

A small group of government officials in the city of Buenos Aires took the initiative to provide free Internet access for citizens through computer terminals in public areas. These "Technology 2000 Centres" operate in Management and Participation Centres (CGPs) and public libraries in different districts of the City. They serve a diverse population in terms of social and economic level, integration in the district, age, sex, motivation and interest and ICT training. The Centres that operate out of libraries have three PCs, while those located in the CGPs have between 14 and 18 computers. Use is for a limited period. While no training is provided, users are assisted by the Centres' technical staff in how to navigate the Internet and use electronic mail. There are no printers for public use, nor are diskettes allowed for fear of computer viruses. The numbers of those using the service during the day is very high, varying between 25 and 120 persons per day, depending on the equipment available.

Information has been compiled and statistics gathered on the use of the Technology 2000 Centres. These data show that many habitual users are children and young students with a certain mastery of the Internet. In terms of the services most

frequently used, younger users chat while adults use the e-mail services. The users typically lack access to the Internet in their homes or places of study and work, and the Centre represents the ideal "place" for connecting to the Net. The programme has successfully accomplished its objective by attracting a large number of users and providing free Internet access, especially for children and young people who otherwise would have no access. However, it does not promote training, does not permit user participation in the project, and does not facilitate interaction between the community and local government. The programme has not been conceived in a way that takes account of the local social and cultural environment. The context is rigid; the physical environment, in most cases, is not supportive; there is no linkage between the activities of the host institution and the Centre; and the activity begins and ends with a turn at the computer terminal.

What differentiates a Technology 2000 Centre from a private computer information centre is that the former is free. However, merely facilitating access to the information society by disadvantaged sectors of the population is not enough to make the Centres a social project. Experiences with Internet centres in other countries all show that a *centre becomes a social project when placed within a district and when it represents a place that members of the community feel is their own, with active participation in activities and management and with the possibility of*

encouraging local promoters to help make them more self-sustaining.

Is there electronic governance in Buenos Aires?

The political and legal changes in the GCBA suggest a trend towards the opening of new spaces for participation through the use of ICT. But in order for forms of community participation in city management to develop in this public space, real or virtual, there are additional requirements.

On the government side, there must be computer equipment in the various branches of government. Meaningful change in the institutional and political culture is needed to ensure openness and

Government managers must learn computer skills, change their perceptions about the use and potential of ICT tools, and ensure openness and transparency in information flows as well as enhanced community participation in local administration.

transparency in information flows and enhanced community participation in local administration. Making information available to the population through ICT requires, first and foremost, that the managers themselves, beginning with the

Executive, should learn computer skills and change their perceptions about the use and potential of these tools.

On the side of the public, people also need to develop familiarity with computer equipment and to change their perception of the use and potential of these tools through computer training campaigns.

The attempt at electronic governance has serious limitations at the level of the actors involved. Politicians and government personnel do not favour use of ICT. They use the portal as a means of institutional dissemination, limiting the web page to an electronic bulletin. They fail to encourage citizen interaction, and citizens are offered no alternative channels of communication such as chat rooms or talk forums. In addition, the level of ICT use by citizens for interaction with government and civic participation is low. There is no link between explicit policies and government statements about "modernization" through use of the Internet on the one hand, and the initiatives of the governing class to interact more closely with citizens through new forms of participation on the other hand.

Montevideo

The Municipal Intendency of Montevideo (IMM is its acronym in Spanish) governs the smallest and most populated Department (1,344,839 inhabitants) of the Eastern Republic of Uruguay. Since 1990, through three consecutive elections, the Department has been governed by the leftist coalition "Frente Amplio",

which has promoted medium-term political and organizational reform projects that have had the support of citizens. One of the changes in municipal government was introduction of a decentralization policy. The process began in 1990, but it was only in December 1993 that local political organs and Neighbourhood Councils were established as organs of social participation. The following organs function in each of the Department's 18 districts:

- a local board—for programming, management and control of public works and planning in the district;
- a Neighbourhood Council—the body responsible for identifying needs and priorities and for ensuring participatory monitoring of plans; and
- a District Community Centre (CCZ)—a municipal service to promote decentralization of the administration and services.

The process of computerization of the Municipal Intendency of Montevideo began in the late 1970s with the introduction of mainframe computers for the registration and printing of invoices in real time. In 1990, consideration was given to introducing a computerized management system that would integrate various departments and functions. The Central Computer Service of the Universidad de la República was asked to develop a strategy for the computerization of the municipal government.

In 1992, installation work began. Under this plan, no linkage was made

between the innovations being introduced and projects involving citizen participation. The computerization process was carried out simultaneously with the decentralization plan, which involved the establishment of the District Community Centres. However, it did not include any linkages to the participatory experience that is implicit in the use of ICT. The use envisaged for ICT in the CCZ was related to the administration of the Intendency; it was not a vehicle for communication with citizens.

One of the major problems inherent in the newly installed computer system was the degree of training required by operators of the system. The different rates of introduction and use of the various computer tools by the various departments and divisions were due to the different capacities of the officials concerned. Age is a key determinant of how quickly new technologies are introduced: younger officials adapt to and manage the system more rapidly, while older officials appear to be more resistant to the new procedures. Lack of training leads to errors in data entry and contradictions within the system itself. Although the quality and operation of the systems installed were judged to be positive, the lack of training of a large group of municipal workers is an obstacle to their optimal functioning.

In this process, the CCZ became "municipal offices closest to the people." The existence of an integrated computerized system enabled some procedures to be completed at the CCZ. However,

in order to initiate most of the procedures, it is necessary to go to a central government office. Procedures cannot be initiated on line.

Opinions are divided as regards the impact of ICT on the level of civic participation. There is the fear, mentioned openly in interviews, that this medium might replace the traditional medium of face-to-face participation, which is considered essential for the restoration of community spaces. This is consistent with the policies of decentralization pursued by the municipal government over the last 10 years and with the nature of the information contained in the Web page devoted to this type of activity. This vision is also consistent with the perception of ICT as a relatively inexpensive means of promoting the city's attributes abroad, including its tourism and investment potential, rather than as a tool for promoting greater interaction. Both the national and municipal governments in Montevideo have similar perceptions about the potential of these technologies.

The potential for the use of ICT lies in the high number (26 per cent²) of households in Montevideo that have computers and Internet connections, which could provide a material base for promoting participation through ICT. While this percentage applies to households with a higher level of education and income, it nevertheless represents a significant portion of the city's population. This total does not include public facilities offering access to these technologies.

E-government in Montevideo

As was the case nearly a decade later in Buenos Aires, the computerization of the IMM was carried out simultaneously with the decentralization plan, although the programmes were not connected to each other and did not share a common objective. Computerization was carried out for the internal management of the IMM itself. It was not conceived as a means of communication with citizens, nor did it include linkages with initiatives to promote participation through ICT. The use envisaged for ICT in the CCZ is related to municipal administration, not as a tool of communication with citizens.

A conjunction of circumstances favored this plan. The national government had favorable attitudes and strategies regarding the use of ICT as a means of economic and social promotion. And a high number of households were equipped with computers and Internet connections. Nevertheless, the impact of ICT on urban management in Montevideo still leaves something to be desired. Municipal officials are still not completely aware of the possibilities of ICT as a vehicle for interaction with citizens. They perceive ICT as a relatively inexpensive means of promoting the city's attributes abroad rather than as a means of communication with citizens.

The installation of the IMM computerized system in the IMM paralleled the creation of the CCZ as decentralized administrative and political bodies. However, these two processes are not conver-

gent. Introduction of the computerized system is aimed at streamlining municipal management, although it does not provide for the completion of procedures on line. This parallelism without contact shows the absence, or at least the limited degree, of prospective or social impact studies of ICT on governance prior to implementation. This is probably due to the early stage (compared with other countries in the region) at which the IMM decided to computerize its administrative systems.

ICT IN CITIZEN NETWORKS

The Spanish Association of Citizen Networks (www.aerc.net) defines a citizen network as follows:

"A Citizen Network is a system of intervention, instrumentalization, articulation and promotion of all aspects of local development... On the other hand, public authorities have in Citizen Networks a means of reaching the most remote households with information concerning matters of common interest and a means of providing services to citizens. In the future, many procedures and processes will be undertaken by remote means. Communication between the administration and the people must become more technical at the same pace as the society becomes more technological and not lag behind... The networks can serve to increase the quantity and quality of public services, especially for those groups that have

problems in utilizing them in their current formats. The various social groups and movements have in the networks a means of communication and coordination, a forum from which to publicize their ideas and proposals to citizens and a tool to interact with groups that have similar interests in other parts of the world".

Although this is merely the outline of a principle, it is also the building block of the city of knowledge, which requires a specific design that encompasses popular neighbourhoods, universities, social activists and organizations which, in one way or another, determine the shape of the information society.

Argentina: use of ICT by civil society organizations

The city of Buenos Aires has the highest concentration of NGOs in the country—46 per cent of the total in 2000. The National Centre of Community Organizations (CENOC), the official body that has the most complete database of community organization in the country, estimates that there are 483 organizations based in the City³. Half of these participate in networks and most of them are engaged in activities of broad territorial scope (44 per cent at the national level).

In our study, we have included non-profit civilian organizations that depend institutionally neither on the State nor on the market. They advocate instead new forms of collective action outside of the political party and use ICT in their

activities. A self-administered survey was conducted and disseminated by E-mail. The survey mainly covered medium-sized and large support organizations in Buenos Aires that have been Internet users for at least three years.⁴ We identified 78 of these NGOs in 30 days.

The most obvious finding from the survey concerns the infrastructure which has been installed. One-third of all organizations have Internet connections. There is an average of five computers per organization, of which four are connected to the network. Most of the organizations have personnel assigned to Internet-related tasks—between two and five staff in most cases. Existing staff rather than new recruits undertook this work in 47 of the 78 NGOs. In more than half the organizations responding (51.2 per cent), most staff members were self-taught in the use of ICT; a minority of them have operational and/or technical staff who are information science specialists (17.1 per cent).

Most NGOs have been Internet users for three or more years (50 cases). Half their members have access to electronic mail (47 per cent), and more than one-third of them have access to the Web (38 per cent of cases). Electronic mail and the Web are the services most widely used by organizations (42.8 per cent and 25 per cent of replies, respectively), followed by chat rooms (18.9 per cent).

Internet use enhanced access to information (20.7 per cent of replies), the publicizing of activities (20.5 per cent) and communication with other organizations

(19.3 per cent). It also streamlined administrative tasks (15.1 per cent). Most organizations use the Internet to disseminate information through their Websites (60 cases). This trend is growing among organizations with more experience in the use of the network. There is also a trend towards the development of Websites in organizations with programmes that have broad geographic reach.

The use of ICT in community-based organizations led to changes in communication and information, in the generation of new services and in the internal organization of NGOs. In terms of linkages with other organizations, most NGOs belong to a network (64 cases). The study shows that the organizations with the most linkages to other organizations at the national and international levels use Websites.

In terms of their relations with local governments, most organizations have no links with their municipalities (27.4 per cent of replies). A number of organizations participate in the activities of the municipality, such as attendance at meetings (19.7 per cent) and receiving support for their activities (17.9 per cent), while others gain access to municipal information through the Internet (14.5 per cent). Traditional linkages are still used: ICT is still not viewed as a vehicle for linkage with the government.

Through the Internet, organizations have achieved greater access to information and databases and greater participation in virtual community networks. They

have also positioned themselves as producers of information. This is not limited to the use of Websites as "bulletin boards": organizations see the potential of the Internet for promoting access to resources and the creation of new services. The Websites examined use ICT to improve access to scarce resources by making it easier to obtain grants, collect funds by electronic means, promote volunteer drive campaigns, provide distance training and give access to information. The creation of services in turn relies on ICT support for receiving complaints, providing advisory services, training, E-mail campaigns, improving communication with beneficiary populations, and access to information through portals. A greater shift by NGOs towards Internet use and the integration of ICT into their functions and strategies is anticipated. It should not be forgotten, however, that in most cases these are large and medium-sized organizations with international activities. Most of the small organizations in the community are not in the same situation.

Uruguay: community electronic networks

Civil society organizations (CSOs) have played a key role in the process of Internet dissemination in Uruguay. In late 1985, during the first phases of the restoration of democracy, there was a need to maintain and consolidate social and academic networks. The alternative of ICT was explored and carefully examined, mainly by economic and social research NGOs and by scientists in the

fields of basic science and technology. Given the high technology level of the principal NGOs in Uruguay, news of the availability of ICT spread rapidly. Requests were received for sending and receiving E-mails through Chasque, the collective post box of the NGOs. In 1989, about a dozen NGOs requested and obtained from the Dutch Organization for Development Co-operation (Novib) a donation of US\$10,000 to establish the first service provider for citizens of Uruguay. It was given the name of the old post office box: Chasque.

Computer and Internet access

The process of bringing information sciences and Internet to the masses led to a change in the profile of users and providers of service and content. Twenty-six per cent of the population has a PC in the home and a further 13 per cent at their place of work. Twenty per cent of the urban population said that they were frequent users of computers and 10 per cent are connected to the Internet, the highest percentage of Latin America.⁵ The rate of increase in the number of Web users is 40 per cent annually. Analysts estimate that the saturation point will be reached in 2003 with a 25 per cent coverage.⁶ Also increasing are ICT based services: 54,065 hosts with the extension ". uy" (abbreviation for Uruguay) were identified in the Internet software consortium survey of January 2001, which placed Uruguay number 47 in the world under this ranking system.⁷

The distribution of access to ICT was measured by analyzing PC ownership according to socioeconomic level, showing that the digital gap is a factor of income. In the upper and middle-to-upper strata, 58 per cent of the population have access to PCs in the home and 25 per cent at work, as compared with 22 per cent and 14 per cent, respectively, in middle-income groups, and 2 per cent and 8 per cent in middle to lower middle class groups.

Internet access is 10 per cent. There is, within this 10 per cent, there is a generational gap in a country whose average age is over 32 years. Sixty-two per cent of Internet users are under the age of 30 years and 19 per cent between the ages of 30 and 40 years. The proportion diminishes between ages 40 and 50 years to 11 per cent and declines further to 8 per cent among those older than 50 years.

The flagship economic sector of the information society in Uruguay is the software industry. It is developing into a regional benchmark for the development of information systems for companies, and has attained world-class competitive capacity. The State fulfils the role required of it by the most dynamic companies in the software sector: to generate an external image of a technological country, facilitate access to sources of financing and promote the Information Society. The clearest initiative was the establishment of the National Committee for the Information Society. Its principal national objectives and plans for the next three years include:

computer literacy, development of computer services for citizens and enterprises, modernization of public administration, promotion of an efficient telecommunications and Internet market, programme of support for competitiveness of the software sector (Polo Uruguay Soft), and a training and certification programme for the introduction of quality control processes in companies developing information and communications technologies.

This promising agenda encompasses nearly all sectors of national activity. It will require active participation by civil society with a view to guaranteeing the promotion of the public interest. Public discussion is needed of the desired objectives and the practical methods of implementation. Consequently, the role of NGOs should be central to this process.

NGO roles in community connectivity

Up to the year 2000, national policies have emphasized private, household and company connectivity. In the meantime, civic organizations have had a pioneering role in the dissemination and social ownership of ICT for community purposes. Starting in 1998, a joint NGO-government project called *Bibliored*⁸ (meaning library network) introduced an innovative strategy of connectivity and access to a network of Internet Centres in Montevideo. These are hosted by the libraries in 20 District Community Centres in Montevideo.

On the government side, the leftist

Intendency district of Montevideo provides the premises and the "atmosphere" for the Internet Centres. The NGO is the Franciscan and Environmental Research and Promotion Centre (CIPFE)⁹, which is specialized in the issues of poverty and marginalization. In each centre, CIPFE installs an average of four computers and provides a computer instructor and an Internet tutor. They provide computer training at a minimum cost (US\$23 monthly per pupil), fees which are used to pay teachers' salaries. Four hours of Internet access are provided free of charge each day. The project also aims to computerize the database and management of each district library.

Thus far, 1,700 students have been made computer literate, and 800 more students are currently being trained. The profiles of users range from children and adolescents to old people up to 85 years of age, many housewives, young job seekers and workers who are seeking to avoid losing their job competitiveness. In interviews with tutors, emphasis is placed on those adults who have PCs in their homes or workplaces, but do not know how to use them. Economic profiles vary depending on the district, but the project gives priority to needier districts.

It is also interesting to assess how community service NGOs themselves work with ICT in their own operations. In late 2000, we conducted a survey which collected comprehensive information on ICT uses by 60 such NGOs in Montevideo. The NGOs surveyed came

Box 1—URUGUAY: NGO TECHNOLOGY USES

Computer equipment

Own equipment:	Per cent
at least one PC . . . . .	.87
a multimedia package . . . . .	.55
a printer . . . . .	.78
Shared use:	
with another NGO . . . . .	.10
member's home equipment . . . . .	.11

ICT use

Began before 1994 . . . . .	.18
Have Internet connections . . . . .	.60
Have own e-mail address . . . . .	.70
Have own Web page . . . . .	.25
Have an Intranet . . . . .	.21

Telephone

The most used technology . . . . .	.93
Have only one phone line . . . . .	.38
Have more than 5 phone lines . . . . .	.14

from a random sample in the national directory of organizations, "Con fin solidario", produced by the Institute of Communication and Development (ICD) which groups NGOs formally established and working for the benefit of the community.¹⁰ The survey instrument was a questionnaire similar to the one used in Buenos Aires. The main statistical findings are in box 1.

The survey gave some insight into the methods which these NGOs use for outreach, showing that the social NGOs are very active and generally follow a multimedia communications strategy.

The technologies most widely used are the telephone (93 per cent) and the fax machine (68 per cent), in addition to the traditional postal service (73 per cent). In addition, other communication channels used include meetings and media, as shown in box 2.

As regards ICT as a tool of participation in local government, the most active NGOs have so-called "high connectivity": high frequency channels, several telephone lines and Intranets. The correlation ratio between having an Intranet and coordinating with the IMM is 0.54, that of impacting on local policies 0.35, of

Box 2—NGO ACTIVITIES

Live personal meetings to coordinate with other NGOs . . . . .	.82
Joint events with other NGOs . . . . .	.47
Meetings to communicate with target communities . . . . .	.67
Graphic media for community communication . . . . .	.52
Electronic mass media for community communication . . . . .	.25

having agreements with the IMM 0.33, respectively. The IMM has a certain gap in the use of ICT in its coordination with NGOs, in addition to two-way communications by E-mail between NGO managements and IMM officials. The social sector of Uruguay is quite advanced along the

and in community organizations in both cities. In terms of the computerization of their local governments, Argentina and Uruguay have different historical and political characteristics and different degrees of commitment to the use of the technologies, which reflect the different economic and political strategies of each country. A number of common features can nevertheless be identified:

NGOs with high connectivity are the ones with the most active participation in local government.

ICT in local management

The strategies for the insertion of ICT into local management were developed by small groups of functionaries without consulting the wider pool of municipal functionaries and without conducting any impact studies. No monitoring and evaluation was done subsequent to implementation that would have permitted errors to be corrected. One notes a certain ambivalence in the perception of the impact that ICT could have on the level of citizen participation.

road that the national government has mapped out to promote the insertion of the country into the information society as early as possible. However, operational spaces for participation have not yet been created in which social organizations can have an input into those plans.

SOCIAL IMPACTS OF ICT

The results obtained in our research allow us to evaluate current trends, changes and impacts in the use of ICT, mainly in local governments and their internal management and communication with citizens,

The integration of ICT into local management in both cities was not preceded by any campaigns to educate officials about the usefulness and potential of technological tools, nor by any serious

training in the use of these tools, except for a number of short and inadequate courses. This resulted in scepticism, fear and resistance on the part of the functionaries, caused mainly by ignorance and lack of information. Since they were not consulted about their work-related needs and the manner in which their tasks could be optimized through the use of ICT, they did not feel represented in the "solutions" provided the governments, which translates into lack of identification with these technologies.

This stands in stark contrast to the experiences in other cities of the world, such as Toronto¹¹, for example. There, computerization of the local government was preceded by participatory workshops. City Hall officials described their tasks and exercises were undertaken to identify those areas in which ICT would be of greatest benefit and needed priority implementation.

Nor did Buenos Aires and Montevideo organize information or publicity campaigns using the traditional media (newspapers, radio, television, public billboards, etc.) to inform citizens about the new computerized services. Information can be found on both municipal governments in their respective Internet pages, but it is first necessary to enter those pages. In Buenos Aires, there were a few notices in local newspapers or public billboards when the first three Technology 2000 Centres were inaugurated, but not for the other 17. Citizens who are not regular Internet users or who are unaware of these

new services receive no information to encourage them to use the services. Information is spread by word of mouth, but not through institutionalized channels.

The successful, relatively inexpensive and technically accessible experiences of others do not appear to have been taken as possible lessons to be learnt in Buenos Aires and Montevideo. Consequently, the results in those cities have been mixed: some increased efficiency in operations—despite resistance to ICT by officials and failure to link it with a wider modernization of government institutions; and some increased information flows for officials and citizens—despite lack of publicity on what is available and delay in providing promised information tools.

It is also curious to note that in designing their strategies for the integration of ICT into local management, both governments neglected to consult with national experts in government management and/or policies for the information society—experts who are working in both Argentina and Uruguay. With the exception of a technical consultation by the IMM with the Universidad de la República, the two governments had no recourse to the know-how and expertise of the universities located in their respective cities. In both cities, the process of municipal decentralization has been accompanied by the introduction of technology, but slowly, in a manner that was not completely harmonized, and with little relationship to the experience of civic participation through ICT. The initiatives targeted to

the community did not respond so much to institutional strategies as to individual and group initiatives.

The two countries differ in their national strategies on ICT. Uruguay has placed greater emphasis on the software industry and has managed to attract Argentine companies in this sector through tax incentives. Argentina does not have a clear policy in this area, despite various government statements. Notwithstanding these differences, the perception of the potential of these technologies for government management between the national and municipal governments of the two countries is similar. Functionaries are still not fully informed or convinced about the potential of ICT as an instrument to promote greater interaction with citizens. In general, they are restricted to using them in Montevideo as a relatively inexpensive means of communication for promoting the attractions of the city abroad to potential tourists and investors. In Buenos Aires, it is a "show window" of a "new model" of modernity and efficiency.

ICT in community networks

While both countries are similar in the use of ICT by their local governments, they are markedly different with regard to the use of ICT in community networks. Both countries have a long history of social movements in community organizations, strongly influenced by European immigration in the 19th and 20th centuries. As regards the social use

of ICT, however, civil society organizations (CSOs) in the two countries have taken paths that, for the time being, are different.

In Argentina, CSOs arrived relatively late to the world of computerization, particularly among medium-sized and smaller organizations. This happened despite the fact that the Internet was already widely known, if not widely used, in the country, at least in universities, companies, the media and government organizations.

In Uruguay, on the contrary, NGOs were pioneers in the use of the Internet and played a significant role in expanding its use. NGOs forming part of a relatively organized civil society—with a strong trade union movement and many cooperative type associations—used ICT initially to become integrated into global networks; later, they used ICT for communication purposes at the local and national levels.

With regard to the establishment of networks, Argentine CSOs acted individually. Very few were part of institutionalized networks, and no national federation of NGOs or CSOs existed to facilitate work in this area. This characteristic has carried over to their use of ICT: organizations that use ICT do so in internal networks, not in interorganization networks, although the establishment of informal networks for the exchange of information has been noted. In Uruguay, while we have not seen any formal national networks, there is a noticeable trend towards linkages between NGOs that are regular users of ICT.

ICT relationship between community organizations and the State

The two countries have a common point as regards State-community ICT relationships. On the one hand, Argentine organizations proclaim the need to give the State greater responsibility for the dissemination of ICT and to facilitate access to it. On the other hand, State official declarations speak of the need to disseminate these technologies in civil society. In the area where there should be a meeting between the two parties, a glass wall has developed that has prevented the State and civil society from coming together. With few exceptions, there are no points of contact between the CSOs and the Internet Centres of the various national and local programmes, which were not conceived to "create a community".

A similar process is developing in Uruguay, despite the fact that the emerging system of free access Municipal Internet Centres in the libraries of the District Community Centres of Montevideo suggests a possible meeting through the use of these Internet Centres by the CSOs.

In both countries, the trends detected suggest an early increase in civic expression through ICT. This is prompted by recent plans and interest arising in the first and second sectors (the State and private sectors) which seek to develop computerization and telecommunications. It is essential to follow-up these processes in real time. There should also be periodic evaluations of how much initiative is taken by the third sector (civil

society organizations) in the use of computerized systems and of which models of public participation are being adopted.

In Uruguay, there is a certain lack of correlation between actors and objectives, but all three sectors are politically oriented towards the integration of the country into the information society. This promotes more effective integration of the CSOs into the information society in the medium term and at the municipal level. In Argentina, the three sectors have a positive and explicit discourse on the need to integrate the country into the information society, but there are no linkages between the various actors or the scope of activities of each actor. The result is slower integration of civil society organizations into the information society, at least in the short and medium term.

ICT, democracy and social capital

Research shows, among other things, the difficulties of harmonizing social, administrative and technological policies. Tsagariousianou *et al.* (1998) mentioned a United States study by a group of experts "First Reflections Report", which states: "The Information Society must be about people. We must place people in charge of information instead of using information to control people"¹². In general, in many of the countries in which "electronic democracy" has been implemented—and this includes both E-government and citizen participation, individually or in organizations, through electronic means—the results have not matched these concepts.

There are various reasons for this:

1. Decision-making in the area of science and technology has historically been, and still is, less democratic than other types of policy decisions (Sclove,

The Information Society must be about people. We must place people in charge of information instead of using information to control people.

1995). The technical complexity of ICT policy formulation excludes many lay people and prevents them from becoming involved. While social groups or community organizations often intervene and help to modify decisions by their criticism and pressure in matters of transport, economics, environment, health, security, education, etc., until recent times there have not been similar interventions on scientific and technical questions¹³.

2. Government ICT initiatives generally use the language of democracy, but are not based on a body of academic research from which theories on cyberdemocracy can emerge and develop. In fact, there is no empirical research basis for the debate and a lack of intellectual criticism of the alleged democratizing effects of ICT. The academic community has resisted recognizing that the social impact of the ICT is an issue deserving sustained attention. On the other hand, government officials also resist consulting

academics working in these fields.

3. Technological innovations are taking place in a changing political atmosphere. Politically and in terms of efficiency, it is no longer accepted that there should be rigid government control of the organizations and institutions that implement and disseminate these technologies. The investments needed to keep up with technological developments are not within the reach of many government budgets, particularly at the local level. The monetarist thinking in vogue, with its emphasis on control and reduction of public spending, means that it is private capital that finances these technological developments (Tsagariousianou *et al.*, 1998).

The emergence of different types of social movements, both local and global, maintained by information networks suggests the need to develop more and better in-depth empirical research into electronic government and electronic democracy. Our own research reveals that electronic government in the coun-

Government ICT initiatives use the language of democracy, but have no basis in empirical research on the alleged democratizing effects of ICT.

tries under consideration will not be fully developed if it is not based on prior studies of the needs of the population in communication and participation, on

profound changes in national institutional cultures, and on participation by academics and civil society organizations in formulating social and technological policies for cities. On the other hand, many of the objectives pursued by civil society organizations will not be achieved without fundamental changes in the structures for the regulation of technology and telecommunications.

Recommendations on these points have significance and weight and require attention from all sectors and citizens because of the potentially transforming power of information and communication technologies. As noted by Stefano Rodotà (1999), "the innovations introduced by information technologies have importance for citizens because they are part of literacy and because they end in the reconfiguration of democratic processes".



N o t e s

- ¹ The research team included Silvia Lago Martínez, Alejandra Jara, Pablo Baumann, Alén Pérez Casas, Martín Zamalvide, Mariano Fressoli and Raquel Turrubiates, under the programme "Social Impact of the New Information and Communication Technologies and in Latin America," IDRC-FLACSO/Ecuador.
- ² Interconsult. Published in the newspaper *El País* of 13 August 2000.
- ³ CENOC, *Building the Third Sector in Argentina*, 1998.

- ⁴ The typology used was established by CENOC, which classifies organizations into community-based and support organizations.
- ⁵ The typology used was established by Mr. Juan Grompone on <http://www.montevideo.com.uy/genexus/51.asf>.
- ⁶ The typology used was established by <http://www.isc.org/ds/WWW-200101/dist-bynum.html>.
- ⁷ The typology used was established by http://www.uruguayenred.org.uy/informacion_general/agenda/agenda.htm.
- ⁸ The typology used was established by <http://www.bibliored.edu.uy>.
- ⁹ The typology used was established by <http://www.cipfe.org>.
- ¹⁰ <http://www.icd.org.uy>.
- ¹¹ See: S. Finkelievich, J. Karol, G. Kisilevsky: "Cybercities? Computerization and local management", 1996, which describes the participatory process of computerizing the City Hall of Toronto, as well as a comparison with the Municipality of Buenos Aires.
- ¹² The power of paraphrase.
- ¹³ Mention should be made of the demonstrations organized in 2000 by researchers and academics in Argentina against the Science and Technology Plan developed by the State Secretary in this sector, Dante Caputo.

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