

Proposed Strategies for the Information Society in the South

SUSANA FINQUELIEVICH

PRESIDENT
LINKS
WWW.LINKS.ORG.AR

Upon the guidelines included in the WSIS Declaration of Principles, which are essential to developing the information society, a series of questions are raised: How do we build an inclusive information society to be developed by the different social actors in Southern countries, particularly in Latin America and the Caribbean? What elements should be focusing the efforts of governments, the private sector and civil society? What sources of financing should be encouraged to ensure access and production of technological goods and services? What are the conditions required to assure that multistakeholder participation in building the information society becomes a reality? And essentially, what proposals could be made on these topics in order to contribute to the process of building the information society that will follow the WSIS? This paper addresses these questions and suggests measures to be taken by the different actors in the process.

This paper is based on a series of investigations coordinated by the author, which conclusions are gathered in the document "Building an Information Society in the South: The role of governments and civil society", available online at wsispapers.choike.org/

إستناداً على المبادئ التوجيهية الواردة في إعلان المبادئ للقمة العالمية لمجتمع المعلومات، والتي تُعد أساسية لتنمية مجتمع المعلومات ، تطرح سلسلة من الأسئلة: كيف نقيم مجتمع معلومات شامل تقوم بتميمته الأطراف الاجتماعية المختلفة في دول الجنوب، وبشكل خاص في أمريكا اللاتينية والكاريب؟ على أية عناصر يجب أن تتركز جهود الحكومات، القطاع الخاص والمجتمع المدني؟ أية موارد تمويل يجب تشجيعها لضمان إنتاج والنفاذ على السلع والخدمات التكنولوجية؟ ما هي الظروف المطلوبة لكي نضمن أن تصبح مشاركة أصحاب المصلحة المتعددين في بناء مجتمع المعلومات حقيقة؟ وبشكل رئيسي ما هي المقترحات التي يمكن صياغتها حول هذه النقاط للمساهمة في عملية بناء مجتمع المعلومات الذي يستتبع القمة العالمية لمجتمع المعلومات؟ هذه الوثيقة تتناول هذه الأسئلة وتفتح الإجراءات المطلوب إتخاذها من جانب مختلف اللاعبين في هذه العملية .

En los documentos oficiales de la CMSI se plantea una serie de interrogantes en relación al rol de los diferentes actores sociales en la construcción inclusiva de la sociedad de la información en los países del Sur y, en particular, en América Latina y el Caribe. ¿Qué factores deben concentrar los esfuerzos de los gobiernos, el sector privado y la sociedad civil? ¿Qué formas de financiación de acceso y producción de bienes y servicios tecnológicos deben alentarse? Y, esencialmente, ¿qué propuestas pueden efectuarse sobre estos puntos para contribuir al proceso de construcción de la sociedad de la información que sucederá a la CMSI? Este documento presenta estas cuestiones y sugiere medidas a ser tomadas por los diferentes actores del proceso.

A partir des idées exposées dans les documents officiels du SMSI, apparaissent des questions concernant le rôle de différents acteurs sociaux dans la mise en place de la SI dans les pays du Sud, notamment en Amérique Latine et aux Caraïbes. Sur quels facteurs doivent se concentrer les efforts des gouvernements, du secteur privé et de la société civile? Quelles sont les modes de financement de l'accès et de la production des biens et des services technologiques à encourager? Quelles seraient les propositions à faire sur ces points pour contribuer au processus de construction de la société de l'information après le SMSI? Ce texte analyse ces questions et propose des actions susceptibles d'être reprises par les acteurs du processus.

Introduction

The Declaration of Principles of the World Summit on the Information Society (WSIS), in December 2003, expressed that “We are resolute in our quest to ensure that everyone can benefit from the opportunities that information and communication technologies (ICTs) can offer. We agree that to meet these challenges, all stakeholders should work together to: improve access to information and communication infrastructure and technologies as well as to information and knowledge; build capacity; increase confidence and security in the use of ICTs; create an enabling environment at all levels; develop and widen ICT applications; foster and respect cultural diversity; recognize the role of the media; address the ethical dimensions of the Information Society; and encourage international and regional cooperation. We agree that these are the key principles for building an inclusive Information Society.”¹

Upon these principles that are essential to developing the Information Society (IS), a series of questions are raised: How is the building of an inclusive IS to be developed by the different social actors in Southern countries, particularly in Latin America and the Caribbean (LAC)? What elements should be focusing the efforts of governments, the private sector and civil society? What sources of financing to ensure access and production of technological goods and services should be encouraged? What are the conditions required to assure that multistakeholder participation in building the IS becomes a reality? And essentially, what proposals could be made on these topics in order to contribute to the process of building the IS that will follow the WSIS?

This document, based on research carried out in LAC, puts forward the conclusions drawn in the paper “Building an Information Society in the South: The role of governments and civil society”. Actions to be

1 WSIS, “Declaration of Principles. Building the Information Society: a global challenge in the new Millennium”, Document WSIS-03/GENEVA/DOC/4-E, 12 December 2003, www.itu.int/wsis/docs/geneva/official/dop.html

taken by those participating in the process are proposed, maintaining that the key role of governments is both to provide telecommunication infrastructures and establish partnerships with other social actors for connectivity purposes, and mainly to focus on the development of the Knowledge Economy (KE). Finally, innovative policies and strategies for Southern countries are proposed.

Financing mechanisms for the IS

As one of their first steps towards building the IS, societies in Southern countries have implemented actions to fulfil their connectivity needs through initiatives based on different actors (governments, private sector, civil society organizations) and articulations among them. Currently, there are other key areas concentrating the efforts of national governments and civil society, including the implementation of telecommunication infrastructure networks and the promotion of the KE.² This involves the need to implement country and macro-region projects whose general guidelines include the definition of the intention of becoming either consumers or producers of technological goods and services, spotting market niches for their products and opening export markets.

The ways in which governments, companies and the organized civil society negotiate the financing sources for building the IS will contribute to define these intentions which, in turn, will determine the medium and long-term future of their societies. As it is shown below, these mechanisms encompass several forms:

2 The New Economy is understood as the dynamic system of interactions between the citizens of a country, enterprises and government, which capitalize technology with the object of obtaining a social benefit or financial profit.

*Public financing of communication infrastructures*³

For the development of connectivity and the socioeconomic inclusion in the IS to be made effective in the medium-term, a vision of communication networks as public goods⁴ is currently under discussion in LAC countries. The strengthening of communication infrastructures is currently one of the basic development problems: regional communication systems show great deficiencies with regards to those in developed countries. Basic telephone lines, mail services, computer packages and data transfer, territorial coverage of audio-visual and printed mass media lack the necessary efficiency and speed to be adapted to modern world communications. Imbalance among countries and within countries in terms of communication infrastructures are remarkable, given that these are scarce or nonexistent in less populated, remote or low-income areas. The aim of this paper is to emphasize the responsibility of governments in the area of communication infrastructures: connectivity - in terms of access to Internet and ICT use through telecentres, infocentres, etc. - should not represent the main focal point of governments for building the IS, since it can be implemented by other social actors, although they should indeed be accountable for universal access.

According to the Global Knowledge Partnership (GKP),⁵ the major role of governments concerning public-private partnerships in developing countries is to create enabling economic and legal frameworks, including protection for innovations. The government also plays a significant role in building and training human capacities, and it is responsible for building the infrastructure and making it affordable. Furthermore, the Association for Progressive Communications (APC) and

3 In this item the description of existing experiences in the Common Investment Funds implemented by several LAC countries has been omitted, as it has already been studied in many other works. www.choike.org/nuevo_eng/informes/2804.html

4 www.itu.int/wsis/docs2/pc2/subcommittee/IT4ChangeDAWN.html

5 Global Knowledge Partnership (2005), "Advancing ICT Solutions for Development through Cross-Sector Partnerships with a Special Focus on the Middle East and North Africa", Forum Report, Cairo, May 2005

other organizations⁶ state that IS financing should be based on the principle that information and communication are public goods. This is particularly important for the extension of network infrastructure in developing countries and for marginalized populations in any country. Although private sector investments represent extremely significant opportunities for ICTs for development (ICTD), which must be encouraged, these investments cannot replace (or displace) the central role of public financing in a fundamental sector such as telecommunication infrastructure networks. Otherwise, these networks would never be found in regions and social groups that were not to be profitable to private capitals. According to these organizations, the major role of ICTD policies should be to grant universal and affordable access to ICTs by the year 2015, as part of the support to the poverty reduction strategies proposed in the WSIS Plan of Action and the Millennium Declaration.⁷

In LAC, all countries have financial resources obtained from national budgets, agreements made with private telecommunication companies by means of which the latter grant a percentage of billing for these purposes, and external financing, which they manage through a centralized or decentralized coordination. Another alternative is the articulation of public funds with civil society entities, such as the Argentine telecommunications community cooperatives, for the purpose of providing telecommunication infrastructure networks and services to those areas that are not profitable to the private sector.

Common solidarity funds

Another version of financing mechanisms is the North-South and South-South solidarity. Digital Solidarity is an African initiative promoted by Senegal. In parallel to the first phase of the WSIS in Geneva, in December 2003, a committee was set up for the creation of the Digital Solidarity

6 APC, Bread for All, CRIS, Instituto del Tercer Mundo, IT for Change and Gender Caucus Statement, PrepCom-2, Geneva, February 2005, www.choike.org/nuevo_eng/informes/2689.html

7 www.un.org/millenniumgoals/

Fund.⁸ Its fundamental goal is to transform the digital divide into “digital opportunities for the promotion of peace, sustainable development, democracy, transparency and good governance”. The Fund is based on traditional North-South cooperation, even though it is supplemented through cooperation among the emergent South (India, Brazil, China, among others) and less developed Southern countries (from Africa, Asia, LAC). The initiative is funded by means of voluntary contributions granted by citizens, and finance obtained from local (cities and regions) and national public institutions, as well as from the private sector and civil society.

The Fund is, undoubtedly, an innovative initiative owing to the inclusive commitment of Northern and Southern counterparts and to the promotion of international digital solidarity. However, there are certain aspects which deserve more careful attention:

- The notion of “digital solidarity” can be interpreted with an “assistencialist” approach from rich countries to poor countries, instead of the cooperation between countries with a potential for development.
- It is a delicate situation that the financing of technological goods and services in Southern countries partially depends on donations from Northern countries: the promotion of technology-based industries cannot be based on these principles.
- Without clear explicit policies concerning the investment of donations, it is to be feared that these are invested only in those Southern countries which are more willing to accept the transfer and consumption of technology-based goods and services.
- Without a clear policy on the application of funds agreed upon by stakeholders, these will be mainly used in the one-way transfer of technological goods and services from developed countries to developing countries. Although the goals refer to the promotion of

8 www.dsf-fsn.org/, consulted in July 2005.

articulating projects with an impact on socioeconomic activities and the insolvent demand for the creation of new activities, they do not mention the development of local production of technological goods and services or the spotting of “market niches” for new technology-based products. The emphasis on local production is restricted to the production of local contents, applications and services for administrations and communities, although it is intended to encourage training of human resources and the prevention of intellectual migration.

In other words, the certainly well-meant and innovative digital solidarity, such as it is currently enunciated, poses the risk of increasing the role of developed countries as technology producers and of relegating developing countries to the role of consumers.

Financing of research projects / collective action

Another frequent course of action is the financing of research and cooperative actions among Southern and Northern countries. A current example is @LIS, Alliance for the Information Society, a cooperation programme created by the European Commission on 6 December 2001 aimed at reinforcing partnership between the European Union (EU) and Latin America in the field of the information society. Its declared aim is to “extend the benefits of the Information Society to all citizens in Latin America and to reduce the digital divide between those who have access to the new information technologies and those who are excluded from the information society.”⁹ It has a total budget of EUR 85 million, of which 75% are granted by the EU and the rest comes from contributions made by the programme’s partners. It aims to address the needs of local communities, to foster dialogue in terms of policies and regulations and to increase interconnection capacity between research groups in both regions.

The objectives of @LIS are the following: to encourage cooperation between European and Latin American partners by setting up working groups with members of both regions; to facilitate the integration of

9 europa.eu.int/comm/europeaid/projects/alisis/index_en.htm

LAC countries in a global IS; to promote the dialogue among all actors and users of IS; to improve interconnection between research groups of both regions; to address the needs of citizens and local communities; and to implement innovative, easy to reproduce applications, such as computer programmes, installation of materials, network implementation, etc.

@LIS has succeeded in the promotion of innovative initiatives regarding information exchange on ICT use. However, it shares with the Digital Solidarity Fund the aim to foster the transfer of technological goods and services from developed countries into developing ones. Although one of the project's goals is to foster the integration of LAC countries in a global IS, it does neither finance nor encourage the local production of technological goods and services or the export of Latin American goods and products to EU countries. On the contrary, it lays emphasis on the implementation of innovative, easy to reproduce applications, preferably in EU countries. In other words, this project developed within a more traditional framework than the Digital Solidarity Fund, runs the risk of being more in the service of technology transfer from developed into developing countries than in favour of encouraging productive innovation in LAC countries, thus increasing the already existing technological dependence.

Financing technological production

Financing projects for technological innovations as part of national development come mostly from “science and technology” (S&T) institutions and vary according to the political and economic priorities of each country. S&T systems are of utmost importance in building the IS given the fact that, either alone or in coordination with other sectors (companies, military, governments, etc.), they represent most part of technological innovations which are characteristic of this stage of social evolution. These mechanisms are important since they set policies and strategies about scientific development and technological innovation, to be later applied to productivity areas, e-commerce, connectivity, all levels of education, ICT infrastructure and other sectors.

In spite of not being sufficient to finance technological production and innovation, thus allowing competitiveness at a global level, and lacking economic resources, national financing mechanisms for science and technology seem to be better focused, at least in terms of their goals, on projects which link the production - and not only consumption - of technologies to national development and, in some cases, to macro-regional development.

Innovative policies and strategies proposed for Southern countries

The State's pioneering role in the IS

In order to benefit from the opportunities provided by the IS, citizens must be prepared for the current economic, social, cultural and technological advances. Citizens' e-readiness describes the degree in which a country's society is qualified to participate as proactive agents in the different sectors and levels of the KE, and the ability to accept the challenges posed by the new economic and technological environment. To this effect, the following elements, among others, are needed:

- Access to ICTs infrastructures: hardware, software, connectivity; fast, free or low-cost access to Internet.
- ICT training (not only technological literacy, but also education in business management and organizations using ICTs); life-long education and training in courses, professions and skills related to the KE.
- Information and creativity to identify the opportunities offered by the KE.
- Information and social organization to demand from governments the ICTs infrastructures, innovative education systems, legislation and public information, which are necessary to make good use of opportunities offered by the KE.

- ICTs effective use: the capacity and opportunity to successfully integrate ICTs into the accomplishment of self or collaboratively identified goals.¹⁰

State and non-state provision of telecommunication infrastructure and connectivity services contributes to the e-readiness of people. Cybercafes, which are mostly the result of private micro-undertakings, at present represent the access door to cyberspace for a large number of Latin American people. In Argentina, the Telecommunications Community Cooperatives (TCC) - civil society organizations managed as enterprises - not only provide services to 10% of the total population living in areas that are not profitable for private companies, but are also becoming empowering agents within their communities. Community telecentres add to this a wide variety of services to their communities. According to Steven Johnson,¹¹ it is within societies themselves the capacity to become self-organized in non-hierarchical emerging systems, finding the best solutions to their problems and needs. Microenterprises which have accessed communication through the work carried out by cooperatives and connectivity by means of the setting-up of cybercafes would be an example of decentralized social self-organization, aimed at fulfilling a social need that is insufficiently - or unsatisfactorily - met by the State.

Is the success of community telecentres, TCC and cybercafes in LAC - which fulfills the access needs of part of the population - indicating that the promotion of connectivity and e-readiness must be entirely left in the hands of private investors or the organized civil society? No, and certainly not without regulations. However, these private initiatives have taken the place left - or inefficiently fulfilled - by the lack or deficiencies of State policies aimed at connectivity and at reducing the renowned “digital divide”.

10 Gurstein, Michael, *Community Innovation and Community Informatics Building National Innovation Capability from the Bottom Up*, December 2003.

11 Johnson, Steven, *Sistemas emergentes. O qué tienen en común hormigas, neuronas, ciudades y software*, Turner Publicaciones, Fondo de Cultura Económica, Madrid, 2001. According to Johnson, emergence is when simple elements spontaneously self-organize without explicit rules to come up with an intelligent behaviour.

What is the role of the State in the access and integration of the IS, apart from the already mentioned provision of telecommunication infrastructure networks? Although it is not always necessary for the State to provide social equipment for connectivity, such as telecentres, it is essential to regulate and optimize the operation of private places for public use, such as cybercafes. To regulate implies to set regulations in terms of equipment, comfort of users, times of use, and to facilitate the setting-up of cybercafes in low-populated areas through tax allowances or others, etc. To optimize implies, in this case, to enhance the roles of cybercafes, including training courses in ICT use, their use for social purposes, etc. In this way, the State is relieved from the need to implement expensive infrastructure, and at the same time, ensures access to Internet and to related services to all people.

On the other hand, once the population is acquainted with the daily use of cybercafes for all kinds of communication purposes, and knows and uses community telecentres and TCC on a regular basis, they will be more willing to progress towards other uses of these technologies, beyond mere access and consumption, thus contributing to the empowerment and human, economic and social development of communities.

As posed by Gómez, Martínez and Reilly,¹² “The ‘digital divide’, which usually refers to inequities in the access to new ICTs, particularly Internet, is not the cause but the expression of the existing social, economic and political gaps, at global, national and local levels. Focusing only on the digital divide will not help communities to improve their living conditions, overcome poverty or have a more equitable access to goods and services”. In LAC countries it is necessary to build a new economy - the economy of the IS - and adapt it to the needs, advantages, challenges, obstacles and potentialities of the region.

In a previous paper¹³ we stated that “the role of the State is to anticipate the needs and interests of the different social actors and be prepared for their legislation and control, as well to establish operative

12. Gómez, Ricardo et al, “*Internet... ¿para qué?: Pensando las TIC para el desarrollo en América Latina y Caribe*”, IDRC & Fundación Acceso, 2001.

articulations among them”. For this reason, the activity of LAC governments should be aimed at turning countries into pioneers in terms of technological, social and economic management. In order to achieve this, it is necessary to focus on technological and scientific production, specialized training, knowledge management and the use of existing brains, avoiding “brain drain” and promoting “brain gain”, through coordination with S&T centres abroad. And above all, it lies on the ability to predict the trends towards technology needs and consumption of the population as well as the private sector offer for the purpose of acting promptly, not in response to these trends, but anticipating them in what refers to legal framework, regulations, strategies and actions. In short, it is necessary and urgent for governments of the region to implement integral policies in the sectors of telecommunications, informatics and ICTs in general, aimed at coordinating the technological, economic and scientific development strategies with initiatives for social, cultural and communication development.

The new role of civil society

Civil society organizations (CSOs) play a key role in building the IS. In order to encourage an appropriate use of ICTs aimed at achieving poverty reduction and foster sustainable development, CSOs should consider the following goals: to raise awareness with regards to the importance of the KE in terms of development, and to spread this knowledge among citizens and CSOs; to understand that the KE implies new opportunities for citizens and CSOs; and above all, for a sustainable development, to participate in the making of national, macro-regional and global policies, to build technological capacities in developing countries; to intervene for the purpose of reducing the negative impacts the KE may have on fragile economies and vulnerable social groups; to work in favour of increasing e-readiness among citizens; to impose a new vision: to go beyond the common issues of connectivity, access and

13 Finquelievich, Susana and Daniel Finquelievich, “Puertas alternativas a la Sociedad de la Información: Accesos no gubernamentales para las poblaciones de bajos recursos o remotas”, in: *Revista Ríadel, Ángulos emergentes en Internet*, 2005, www.riadel.cl/revista.asp

open or “free” source software, and to start focusing on having, at least partially, control over Internet infrastructures, considering that in order to develop and redistribute the wealth of the KE it is necessary to have control over them.

Civil society needs to establish constructive alliances among the different social actors, in order to fulfil these development goals, encourage entrepreneurial capacities and people’s initiatives, thus helping them to seek information on business management and microenterprises and get soft loans to finance technology-based initiatives. It is also necessary to develop actions aimed at ensuring that economic growth benefits are redistributed rationally among the population.

Finally, it is essential to relaunch and hold a long-term debate on the interactions between CSOs and the KE, in particular with regards to the process following the Summit, which will lead to the fulfilment of stipulated objectives and goals.

What should be done?

The mandate of the United Nations promoting the WSIS¹⁴ encourages governments to implement multistakeholder consultation mechanisms (governments, private sector and civil society)¹⁵ in each country to define the corresponding national strategies towards the IS. As it was stated by civil society representatives at the Regional Conference held in Rio de Janeiro,¹⁶ it is a process that has opened the possibility to innovate and experience with multistakeholder participation schemes. Multistakeholder cooperation and South-South exchange are essential to achieve fully integrated development towards the IS, on an equitable and well-balanced basis. For the building of this society to be really profitable for all stakeholders, the following measures are suggested:

14 www.itu.int/wsis/

15 www.itu.int/wsis/basic/multistakeholders.html

16 www.redistic.org/docs/ENSI-RIO20051.pdf

Governments' actions

States must be the promoters and main users of ICTs, through e-government, education, S&T, public health, and social and economic plans. However, they should not act on their own but coordinate efforts with civil society, private enterprises and the academic sector. In this context, they should:

- Achieve multisectorial agreements between Southern countries and blocs of countries.
- Focus state priorities on laying down and maintaining telecommunication infrastructures to ensure universal access to information and communication to the entire population, even in low-populated and non-profitable areas. To this effect, it is worth taking into account the outcomes of the WSIS process.¹⁷
- Achieve multisectorial agreements and negotiations with telecommunication companies aimed at laying down and maintaining all kinds of infrastructure, to ensure universal access to information and communications.
- Provide information regarding agreements to be dealt with by governments to civil society, economic sectors involved (entrepreneurs, chambers, etc.) and S&T sectors that are related to the IS activities.
- Encourage the active participation of the above-mentioned sectors in discussions prior to the proposal of agreements, their implementation, regulation and control. This includes the exhaustive legal study of the agreements, including those aspects concerned with international legislation matters, economy and foreign trade, taxes, civil matters, labour laws and copyright, as well as strengthening the discipline and transparency in the implementation of agreements and their fulfilment.

17 See, for instance, WSIS-03/GENEVA/DOC/5-S: "Infrastructure is central in achieving the goal of digital inclusion, enabling universal, sustainable, ubiquitous, and affordable access to ICTs by all, taking into account relevant solutions already in place in developing countries and in countries with transition economies to provide connectivity and access to remote and marginalized areas both at regional and national levels."

- Negotiate the role of private companies in building, laying down and expanding infrastructures for the IS, through the creation of Mutual Funds aimed at the social use of ICTs, whose financing will come from a percentage of the revenues obtained by privatized companies.
- Negotiate with Telecommunication Chambers cost reduction - including flat rates - to encourage connectivity among the population.
- Maintain state regulation on the telecommunication market and open it to a larger number of investors and actors, thus avoiding private monopolies.
- Promote campaigns for the ongoing training in ICTs aimed at civil officers, SMEs, micro enterprises and community organizations.
- Create and manage public centres for Internet access, particularly in low-income or low-populated areas.
- Implement agreements with community organizations for the management and use of spaces for public Internet access.
- Implement agreements between national and/or local governments and telecommunication companies to obtain preferential costs in order to promote Internet use.
- Implement agreements between national and/or local governments and cybercafes or private access centres to purchase “connectivity hours” for students and low income population.

With regards to S&T activities related to the Information Economy:

- Carry out prospective studies related to the KE, including the evolution of the international situation, and the different possible scenarios for the diverse articulations between countries and blocs of nations
- Increase the national budget for S&T, particularly those areas related to the IS; to develop labour integration strategies for scientists, in order to discourage their emigration or brain drain.
- Spot and define “research and development” (R&D) priority areas for S&T related to the IS.

- Encourage productive partnerships among universities, R&D centres and institutions, enterprises and regional and/or local governments.

Civil society actions

- Participate in negotiations between national governments and telecommunication enterprises for the purpose of monitoring the regulation of telephone services, wireless communication and access costs for citizens, as well as the equitable distribution of infrastructure within countries, and to promote multistakeholder synergies, essential for the implementation of actions aimed at the socioeconomic development through ICTs.
- Participate in initiatives and negotiations regarding financing mechanisms aimed at building the IS for development in the different countries and regions.
- Participate together with other social actors in designing and implementing policies and strategies aimed at ensuring that technological innovations are used as tools in favour of sustainable development and poverty reduction.
- Participate in the generation of new educational means or in the transformation of the existing ones to provide citizens the training needed to act proactively in the KE; negotiate and participate in the design and/or renovation of higher education, in policies and strategies to encourage the production of contents and strengthen the relationship between the education system and the S&T sector, among others.
- Propose and create affordable and easy-to-use technologies for ordinary citizens. These technologies could ideally be linked to technological literacy projects and/or self-employment programmes. If they turned out to be successful, they could be exported to other nations.
- Develop multidisciplinary research on the social and economic effects of technological exchange and cooperation among macro-regions (e.g.: Latin America, India, China, South Africa), focusing on the implementation of ICTs for development, full integration into the IS and poverty reduction.

- Identify partners in countries of developing macro-regions in order to build networks, aimed at developing cooperation networks.
- Seek and negotiate financing and technological assistance to contribute to the production of local contents.
- Claim access to ICT services through equitable and widespread development of national information infrastructures, integrated to international information and communication structures, aimed at ensuring universal and affordable access to all people.
- Identify and disseminate new ICT applications to solve the most important problems related to development: education, health care, urban and rural development, job creation, preservation of natural resources, etc.
- Encourage increased motivation for economic development through the inclusion of information media at all levels of public administration
- Demand improved access to public sector information.
- Encourage the increased participation of women in activities related to the KE. To promote before governments the equitable participation of women in decision-making activities related to access and use of IS infrastructure and equipment
- Promote the capacity to generate economic initiatives among the population, helping individuals and groups to find information about management of micro-enterprises and soft-loans to finance technology-based undertakings.
- Develop actions aimed at ensuring the re-distribution of economic growth benefits among people.
- Hold a long-term debate on the interactions between CSOs and the KE, as part of the WSIS process and its follow-up.

For social actors

Finally, it is necessary to consider the proposals of the WSIS Plan of Action with regards to the need for follow-up and evaluation of the measures taken and to be implemented. In particular: “a realistic international

performance evaluation and benchmarking (both qualitative and quantitative) through comparable statistical indicators and research results, should be developed to follow-up the implementation of goals and targets of the current Plan of Action, taking into account different national circumstances.”¹⁸

Such proposals can be summarized as:

- The definition and adoption of a composite ICT development index (Digital Opportunity Index), to be published annually or every two years.
- Implementation of indicators and benchmarking, showing the magnitude of the digital divide and keeping it under regular assessment in order to track global progress in the use of ICTs to achieve internationally agreed development goals, including those of the Millennium Declaration.
- International and regional organizations should assess and report regularly on universal accessibility of nations to ICTs.
- Gender-specific indicators on ICT use and needs should be developed, and measurable performance indicators should be identified.
- Develop and launch a web site on best practices and satisfactory-result projects, based on the compilation of contribution from all stakeholders.
- All countries and regions should develop tools aimed at providing statistical information on the IS, with basic indicators and analysis of its key dimensions.

The above represent an ideal area for multistakeholder cooperation as the development of indicators and task evaluations are extremely complex activities, which call for the coexistence of multiple perspectives, covering a wide and heterogeneous range of activities with diverse

18 WSIS Plan of Action, Geneva, December 2003, www.itu.int/wsis/docs/geneva/official/poa.html

results and demands, including multiple actors and international, regional and national institutions, as well as public, private and mixed enterprises. Clearly, none of these tasks ends at the threshold of the WSIS: this is the ideal triggering point to make progress in building an equitable, well-balanced, multistakeholder and essentially productive Information Society. ■