

**Latin American perspectives in the information  
and knowledge society:  
Different approaches and their implications  
for policies**

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## 1. Introduction

The documents stemming from debates developed within the framework of the World Summit on the Information Society (WSIS) reflect different concepts regarding the process of consolidation of an “information society” (IS) within contemporary societies. It is worth mentioning these approaches and views given their implication in the design of strategies and implementation of policies, including both theoretical definitions and perspectives from the point of view of all stakeholders involved. It should be taken into account that those perspectives linked to definitions of the IS in advanced economies or core countries is not the same as that of countries located on the periphery of global centres of power.

The information and knowledge society (IKS) is led by core countries and directed by market dynamics. Southern countries should build their own development strategies, since the current trend tends to group them on the periphery or directly guides them towards exclusion.

Within the world scenario, Latin America is placed as a continent which shows cohabitation between sectors integrated into global power networks, sectors which are slowly reaching some of the advantages of technological progress and wide excluded sectors. At the same time, although the region is characterized by the adoption of development models with different peculiarities according to each country and government, the main characteristic is that of technological (even economic) dependence on core economies.

It is worth wondering, then: What are the possibilities of these countries to become reinserted into the global economic structure, thus avoiding the increase of inequalities and fostering social development? What approach and options should be undertaken in view of the IKS? Which are the strategic focal points of the IKS in Latin America?

The definitions of the IS within the academic sector refer to the accelerated changes registered in the economy and society in the last three decades. According to Castells, the revolution brought about by information and communication technologies (ICTs) has made economies to become more interdependent and the capitalist system has been restructured, thus changing the relationship between State, economy and society. The processes of technological innovation and the capacity of societies to adopt them determine the entry into global networks. These new relationships change the structure of inequalities causing them to be increased, while also changing the relationships between the different territories in terms of a variable geometry. (Castells, 2000)

On the other hand, many definitions within the political and public opinion sphere link the IS to technological processes or to some kind of “utopian” society. The theoretical and conceptual perspectives and approaches from which the issues of the IS are to be incorporated, will be defining the IS development paths in the continent, as well as the development strategies of the different countries and stakeholders – at local, regional and global levels. No definition is naïve or neutral but necessarily accounts for a theoretical concept or perspective with regards to the issue. The characteristics, nature of its implications and effects on actions and measures to be implemented will be depending on the perspective we choose to depart from.

The research work presented below was guided by the formulation of the following questions. What are the approaches to be found and/or confronted in current and more recent debates? How are these reflected on the documents of the different WSIS preparatory events in Latin America? What positions are to be expected with regards to key issues for the region? What are the perspectives at stake? What are the types of actions, recommendations and policies that they are related to?

## 2. Conceptual elements to understand the IKS in Latin America

### Defining the information and knowledge society

As used in this paper, “information and knowledge societies” (IKS) are those representing the result of socio-historical processes which have been analyzed and described by several authors and which were first identified through the changes that started taking place in industrial societies throughout the 1970s.

The first sociological analyses on the transformation of the industrial society were carried out more than thirty years ago by Daniel Bell (1973) and Alain Touraine (1974), emphasizing the emergence of what they called “the post-industrial society”. They based such notion on data pointing out that more than half of the economically active population was engaged in the service sector. As remarked by these authors, knowledge was starting to play a central role as promoter of development.

At the same time and basically from the field of economics, the so-called “microelectronic technology revolution” was started to be analyzed. During the 1990s, economists such as Dosi, Freeman and Soete started to talk about the emergence of a new technological paradigm and, by the late 1990s, Manuel Castells presents in his trilogy “The information age: Economy, Society and Culture” a description and comprehensive analysis of what he called “the informational society”. (Kasvio, 2001, p.1-5)

The IKS becomes consolidated on the basis of a knowledge-intensive economy developing within the framework of the new socio-technical paradigm. As described by Castells, a revolution has taken place within this emerging society in terms of information technologies; economies have become more interdependent and the world capitalist system has been restructured. The relationship between economy, State and society has changed, increasing the power of capital vis-à-vis labour and the trend towards dismantling the welfare state as it has been known. Likewise, a process of increased inequalities and territorial and cultural differentiation has also been taking place. (Castells, 2000, 136-200)

According to Castells, in the informational mode of development the source of productivity lies in the technology of knowledge generation, information processing, and symbol communication.<sup>1</sup> The processes of technological innovation and the innovation capacity of societies will be determining their incorporation into the new paradigm as well as their integration into global networks. In this way, the entry into the information society is framed and conditioned by an initial context.

By looking at the process, Corona and Jasso highlight two basic features of the concept of “knowledge society”. On the one hand, the global impact of ICTs from the 1970s and the growing penetration of these technologies from the 1990s, mainly at the level of developed

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<sup>1</sup> Castells distinguishes between modes of production (capitalism, statism) and modes of development (industrialism, informationalism). The mode of production is defined as the rules for the appropriation, distribution and use of surplus arising from social structures interacting with production processes. (Castells, 2000, 136-200) On the other hand, the modes of development are: “...the technological arrangements through which labour works on matter to generate the product, ultimately determining the level and quality of surplus. Each mode of development is defined by the element that is fundamental in fostering productivity in the production process..” (Castells, 2000, p.47)

countries. On the other hand, the changes in the science-production cycle, where both a shortening and increase is observed in terms of the diversity in knowledge relationships among involved institutions. (Corona and Jasso, 2005, p. 15)

From Castells' perspective, all societies are permeated by informationalism. Nowadays, informationalism turns out to be empirically inseparable from capitalism, although the transition towards this new societal model is far from being an homogeneous and identical process for the different countries. Furthermore, the informational society is not reduced to the global / informational economy, being this only one of its levels. Although the Silicon Valley experience is taken as reference for the emergence of such society, it cannot be extrapolated as a social, cultural and spatial model to the rest of the world. All societies become incorporated differently, according to their cultural and institutional peculiarities and will be, in the future, informational societies, since this is the logic that has permeated the global networks of wealth, power and symbols. (Castells, 2000, p.50-51)

In the same sense, Corona and Jasso state that: "The knowledge society is defined by means of the double social capacity arising from ICT technological possibilities and the social organization of science and technology for the purpose of solving the old and new problems stemming from the new production, technology and economic dynamics. The knowledge society stands in relation to how knowledge is created, disseminated and transmitted following the emergence of the present techno-economic paradigm, which was launched in the 1970s but whose magnitude became relevant since the 1990s in the 20<sup>th</sup> century". (Corona and Jasso, 2005, p.11)

In this process, as stated by Mercado: "The emergence of new technologies, on the other hand, entailed new forms of organization in terms of knowledge generation, redefining the borders between scientific research and technological development. As never before, knowledge started to be regarded as a commodity."<sup>2</sup> (Mercado, 2005, p. 237)

Just like the IKS should not be reduced to its economic aspect, nor the use of ICTs should be restricted to productive and knowledge generation aspects. ICTs allow for the incorporation of countries into global networks, facilitate information flows and strengthen and make organizational changes of different kinds more effective. In short, as shown by different studies on ICT use, impact and application, their advantages in terms of time, resources and productivity optimization can be incorporated into various areas. In turn, these could have repercussions or influence on other aspects of development, such as education, health and State management.

However, this potential transformation should not be associated with the mere incorporation of ICTs in any of those areas. As indicated above, innovation is a complex

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<sup>2</sup> Both information and knowledge have been critical elements in all modes of development, since the process of production is always based on them. That which is specific to the informational mode of development is "the action of knowledge upon knowledge itself as the main source of productivity." As it is mentioned above, the access and inclusion to these networks and their dynamics is not something generalized but rather carried out within a context of growing inequalities. Information processing is focused on improving the technology of information processing as a source of productivity, in a virtuous circle of interaction between the knowledge sources of technology and the application of technology to improve knowledge generation and information processing. (Castells, 2000 p. 47) Jasso and Corona distinguish between knowledge and information. The information would be the *know what*, while knowledge would include the *know why* and the *know how*.

process, which involves changes in terms of social relationships as well as the integration of new and different actors.

In this historical period, the needs for innovation grow over time and are focused on the more globalized and highly competitive sectors, encompassing both novelties and adaptations of products and ideas targeted at a new market. Innovation represents an outstanding knowledge activity and although formal research is the pillar of its production, the system is widening. Stakeholders have diversified and places for innovation are multiplying - users, non-specialized people, workers, etc. (Corona and Jasso, 2005, p.16)

In the same sense, Arocena and Sutz identify four tendencies that characterize the present situation with regards to innovation: “i) the “innovative acceleration; ii) the growing relationship among scientific research, technological development and innovation; iii) the economic importance of knowledge; iv) the social polarization brought about by the previous trends”. (Arocena and Sutz, 2003, p.77)

The complexity involved in the analysis of innovation - being the result of social interaction - is reflected on the definition of innovation itself: “The technical possibility of doing something new does not produce in itself an innovation, which is the effective introduction of novelty into a certain practical area. Thus, innovation appears as the meeting point or synthesis between the potential capacity to do something new and the perception of an opportunity or necessity to take advantage of such capacity. In general, such synthesis arises from the relationship between different actors: it is, then, a phenomenon of social interaction.” (Arocena and Sutz, 2003, p.20-21)

The above different elements show the unequal conditions existing in terms of technological development and endogenous capacities for building the IKS. Briefly, it may be pointed out that the inequalities in terms of situations with regards to the IKS are placed at two different levels:

- i) with regards to the historical and structural peculiarities of a society and the articulation of actors around technological innovation;
- ii) the inequalities imposed by the current structuring of international economic and power relationships as starting point for the weakest societies.

The process of innovation involves different actors. It does not only comprise those who produce innovations and those who receive or apply them but also the ones that promote them and act as links among one another. The actors that play these roles can be found in different public, private and social institutions. The processes of technology incorporation - as social processes that they are - are complex and diverse, while also being specific and articulated to other constitutive dimensions of societies.

The IKS should not be restricted to its economic aspect, since the transformations involved extend to all areas of society. Technological conditions for an increased exchange have improved due to the time/space compression. These changes have brought about a new proximity between human beings based on the new communication and information flows. However, the promotion and access to these advances are unequally distributed among world inhabitants, both from a technological point of view as well as with regards to the diversity of content inclusion and production. The IKS encloses a basic and

significant paradox: while integrating it divides, while fostering an encounter it fragments, while prompting unity it brings about exclusion. (Bauman, 1998, p. 8)

As stated by Raya and Merino (2004), with respect to the recursive relationship between the economy and social factors in the IKS, "It can be stated that the informational economy is potentially exclusionary, thus producing the distinction between *producers* and *superfluous actors* (Castells, 1996). By means of this, it has been made clear that following profit-oriented trade principles leads to vulnerable social structures where part of the population is placed at a situation or risk of exclusion, which has negative repercussions on the economic development of these countries, since the IS needs a highly qualified and trained labour force in order to compete on the world market." (Ansi, 1996; Esteve, 1997; Riach, 1997)

The risk posed by a virtuous circle between the market-for-profit principle, social exclusion and development difficulties in the informational economy, is an alarming factor for countries whose indicators are showing this tendency, such as is the case of Latin American countries.

According to the outlined definition, four major focal points could be set forth for analysis of the IKS:

1. Changes regarding processes of information generation and access in contemporary societies facilitated by technological changes which reformulate issues of intellectual property, right to information, work processes of information professionals, role of the media and the Internet, among others.
2. Transformations in communication and related organizational changes, in terms of economic processes (productive, financial, related to work organization), governments (ICT introduction into policies, management and the relationship with citizens) and social relationships and social organizations (new forms of participation, socializing and the emergence of virtual communities).
3. Knowledge generation and use. At this level, education as well as science, technology and innovation systems play a central role – including the different actors, both knowledge producers and consumers.
4. ICTs. They represent the core component of processes in the mode of informational development. In such sense, their specificity in terms of forms of dissemination, use and production merit specific studies.

In this paper we will be focusing on items 2, 3 and 4, and on their interaction, given the fact that they represent crucial factors with regards to the development possibilities of peripheral countries and their entry into the IKS with social development.

Although changes in terms of the handling and circulation of information, referred to in item 1, are very important for the dynamic of societies, and their political significance is being increasingly strengthened, a broader analysis and more specific conceptual frameworks are required. This issue is being addressed in depth in other documents.

## Peripheral development within the IKS

Some questions regarding the link between the IKS and development refer us to old sociological debates on the development possibilities of underdeveloped countries. Even the terminology used gives an account of the perspective from which these problems are analyzed<sup>3</sup>. Is the development of underdeveloped countries possible? This classic question seems to have gained a new meaning within the framework of the above-mentioned changes in the economy and society.

The results of the impact of ICTs and the relevance that knowledge has gained as a production factor, suggest the following question: is this new setting representing a new window of opportunities for the development of Southern societies? Many times, behind this question underlies the desire of the different social actors to find the path which may allow to improve the living conditions of the population.

Notwithstanding, there are few signs indicating that such might be the tendency and empirical references are pointing in the opposite direction. As evidence shows, central economies seem to be constantly promoting global regulations which constrain the possibilities of competition and reduce the possibilities for implementing initiatives to encourage or facilitate the development of peripheral countries.

The IKS, at least in its current informational capitalism version, does not seem to go hand-in-hand with development. As evidenced by the Human Development Reports of the United Nations Development Programme (UNDP, 2001), the technological progress of humankind has come together with an increase in inequalities, poverty and new forms of exclusion. Although benefits brought about by technological development have been made evident - strengthened by the high-speed dissemination of progress - there is also an outstanding polarisation between the elite groups having access to the benefits of this process and the large masses of population excluded.

At a global level, these inequalities result in large gaps among countries, but they are also evidenced within each society, city and region. Access to basic elements such as health, education and income is becoming increasingly unequal for human beings according to the economic environment they belong to. The richest countries monopolize the most important advantages and benefits of technological progress while the poorest countries remain practically excluded from it. Organizations such as the United Nations have stressed the need to take global and national steps aimed at redressing these trends (UNDP, 2001).

Castells argues that these global trends of growing inequality and social exclusion are part of a reticular asymmetrical structure in the redistribution of wealth and power and states that this process shows a double dynamic. "On the one hand, the valuable vectors of territories and population are linked to global networks of value creation and appropriation of wealth. On the other hand, all that and all those who lack or stop having value according to that which is valued within networks, become disconnected from the network, and finally, discarded. The position within networks can be modified over time, either by re-evaluation or by devaluation. This sets countries, regions and populations in constant movement, which is translated into an structurally induced instability." (Castells, 2000, p.171)

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<sup>3</sup> Terms such as core/peripheral countries; North/South; developed/underdeveloped; developed/developing; etc. give an account of this diversity.

However, at country level and according to evidence analyzed by Castells and Himanen, a direct and necessary relationship between the IKS and the increase in inequalities cannot be assimilated. The implementation of the socio-technical paradigm has undertaken different characteristics according to the history and peculiarities of each country. In the US case, the process has taken place alongside an increase in social inequalities, while in Singapore it has taken place alongside an authoritarian process and in Finland it has coexisted with the Welfare State and a decrease in social exclusion. (Castells and Himanen, 2003, p. 18 – 21)

### **Peculiarities of the IKS in Latin America**

The location and interaction among central and peripheral regions has varied substantially in the current global context. The particular network morphology and its variable geometry, permanently modifies the cores and peripheries. At the same time, the traditional “state-nation” unit remains strongly questioned in terms of this analysis, since it is possible to find “peripheral” enclaves within “core” countries, as well as “cores” within “peripheral” countries. In the case of Latin America, this kind of reconfiguration has its specific impacts.

There are historical components that cause the structural insertion into the global system to render the Latin American leap into the IKS difficult. Those areas engaged in the production of raw materials have had a peripheral insertion at world level, which has resulted in low investment in research, training and endogenous innovation. Arocena and Sutz state that: “The contemporary globalization of world production tends towards a dual distribution structure, thus concentrating the intensive and advanced training in science and technology in the North, while in Southern areas most productive tasks are spread out with low participation of knowledge-intensive local activities. In this sense, the Southern region of Latin America seems to be going through a neoperipheral reinsertion into the global economy.” (Arocena and Sutz, 2003, p.167)

The impacts of the new informational capitalist techno-economic system were studied in the late 1980s and early 1990s with regards to the economic restructuring - social, political and institutional – underwent by Latin America during such period. Studies carried out on the impact of such restructuring process – including trade opening models - evidence the prevalence of primary economic activities, the low incorporation of knowledge into industry and/or directly point to deindustrialization. Apart from the above, there is also the lack of strong technology investment efforts in these countries, which according to Moguillansky results in a “more vulnerable international insertion, if compared to that existing under the import substitution model. Therefore, the cure has been worse than the ailment.” (Moguillansky, 2003, p.76)

The analysis of different macroeconomic indicators shows that the region is not going in the right direction to face these challenges. A return to primary activities in most economic sectors is evidenced together with an increase in exports based on the exploitation of natural resources, production of primary goods and a disproportionate rise in imports of manufactured goods. We deal here with a model of unsustainable productive development. (Mercado, 2005, p. 239)

The incorporation of technology takes place through transnational companies as enclaves instead of being the result of endogenous development. No demand for technology has

arisen from the diverse sectors of the economy that may encourage links with universities and technology institutes so as to foster a virtuous circle among creation, innovation and investment. Nor has the State defined policies aimed at encouraging the national system of innovation or integration links to the global system. (Moguillansky, 2003, p.79)

In such sense, if ICTs represent the core element of the new technological paradigm as well as “the key element to foster productivity in the process of production”<sup>4</sup>, the “digital divide”, or differential access to ICTs<sup>5</sup> - represents another weak flank of development strategies in Latin American countries. ICT appropriation then is fundamental for the development of Latin American countries, particularly within a context of growing inequalities.

The other key aspect results from the need to shorten the science – production cycle, thus accelerating the innovation process. A close relationship between knowledge demand and knowledge generation is essential, being such proximity also brought by the institutional character and connection between actors within the system. As stated by Mercado, while the large corporations in developed countries become actively engaged in research and consider knowledge as a key asset for their operation and survival, Latin America continues to demand the kind of research work that produces “useful” knowledge without taking any financing responsibilities and only appreciating it rhetorically. (Mercado, 2005, p. 238)

According to Arocena and Sutz, the emergence of the so-called “national systems of innovation”, reflects preexisting and consolidated relationships between actors. However, in developing countries, these systems operate more like prescriptive spaces or expressions of desire rather than as concrete institutional systems. Innovative relationships are not coordinated, the links between the different sectors are mostly purely formal and many times even the existing institutional system is simply a copy of that of developed countries. On the other hand, policies often: “Reflect the lack of consensus on the role played by research itself, as a result of a false opposition between adapting foreign knowledge and creating knowledge of their own”. (Arocena and Sutz, 2003, p.157)

In this scenario, the usual weakness and lack of transparency of existing institutional mechanisms in Latin America is regarded as a factor that delays the socioeconomic development within the informational context. F. Calderón states that the weak institutional system in Latin American countries, the leadership crisis in national projects and the identity crisis of the nation-state, coupled with the resulting loss of sovereignty and sociocultural fragmentation, are elements that make up this new reality. Calderón also points out the importance of elite groups with certain “culture of responsibility where the logic of production prevails over the logic of consumption”. Another condition would be a certain degree of readiness for scientific and technological development and a coherent behaviour of key stakeholders. In such sense, the importance of political elites and business groups is pointed out. (Calderón, 2003, p.398 and 399)

To this effect, Mercado states that “the region faces four key challenges: a technological challenge, characterized by a more complex production; an institutional challenge, characterized by strengthened spaces for the promotion and development of technology and scientific knowledge; the economic-productive challenge, characterized by the huge

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<sup>4</sup> As pointed out by Castells (Castells, 2000, p.47).

<sup>5</sup> Access, production and consumption of hardware, software, contents and Internet, endogenous capacities, etc.

power of multinational corporations; and the ethical-political challenge, defined by the imperatives of sustainable development.” (Mercado, 2005, p. 239)

### **Towards an IKS approach within the region**

The “information and knowledge society” is currently a common and recurrent notion to characterize present societies. This is called under different names which have undergone changes over time: “information society”, “knowledge society”, “informational society”, “post-industrial societies”, “knowledge societies”, “learning societies”, “knowledge capitalist society” and has, in turn, a correlation at the level of the economy: “new economy”, “knowledge-based economy”, “informational economy”.

Each one of these definitions also encompasses a debate on the depth and importance of changes undergone while also implying a diversity of concepts. Some perspectives aim efforts at defining and characterizing changes, while others include a value connotation and thus designate the society that is to be built and achieved. Strategies are also diverse, being thus possible to set them through changes in power relationships – local and/or global – that is, by means of policies that may allow to reach a stage already achieved by other societies.

A study carried out by the Economic Commission for Latin America and the Caribbean (ECLAC) in the 1990s (ECLAC, 1995, p.196), after pointing out the complexity of incorporating technology into work processes, concluded: “There are enough reasons to maintain that the incorporation of new technologies could be adding new components to equity-related problems, removing others, modifying the types of conflict and altering the dynamics of social goods distribution processes, however the degree of equity finally depends on the processes taking place at the political level”.

As it was previously mentioned, the decisive historical factor in accelerating, channeling and shaping the information technology paradigm was/is the process of capitalist restructuring. The technological revolution was useful for this restructuring process and its development is guided by the logic and interests of advanced capitalism, although it should not be reduced to the mere expression of such interests. (Castells, 2000, p. 43)

It is essential to analyze which are the definitions and approaches being confronted in the contemporary debate on the IKS, since this is not just about a mere academic debate. On the contrary, it has major implications in terms of directing actions and policies and great incidence on national, regional and global instances. In such sense, the existence of diverse approaches and their analysis in the documents and declarations resulting from the different events and meetings gives an account of the prevailing tendencies and their potential results.

In the early stages of the process of consolidation of the new paradigm there were approaches based on a strong optimism with regards to the possibilities of the IS for the development of humankind and the Latin American region was not alien to this. According to Tedesco, the initial optimism has been replaced by more complex visions about the democratizing effects of the new patterns of social and economic organization based on knowledge and information. (Tedesco, 2000, P.15)

Sally Burch distinguishes between two approaches, synthesized in two different notions: “information society” and “knowledge society”. She argues that the concept of “information society” as a political and ideological construct has developed under the direction of neo-liberal globalisation, whose main goal has been to accelerate the establishment of an open and “self-regulated” world market. This gained strength in the 1990s in the light of Internet and ICT development and started to have presence at different global and international institutions – G8, European Union, OECD, World Bank, UN, etc.

Within this framework, the IS is presented in relation to the advantages brought about by technological progress, although the need to bridge the digital divide is also pointed out. According to this author, the notion of “knowledge society” (KS) emerged as an alternative to the IS, promoted by academic circles and with repercussions at UNESCO, which adopted the notion of “knowledge societies”. While the IS would be linked to technological aspects, the KS would also include a dimension of social, cultural, economic, political and institutional transformation from a more pluralistic perspective of development.

From Burch’s point of view, it is not about each society having to become adapted to technologies in order to have access and become part of a predefined IS, but rather the important thing is for each society to appropriate technologies according to its specific development priorities. She highlights four components within the KS: information, communication, knowledge and technologies, of whose particular articulation results the society to be built. “And lastly”, says Burch, “we are backing a project of society where information is a public good, not a commodity; communication, a participatory and interactive process; knowledge, a shared social construction, not private property; and technologies, a support for it all, without becoming an end in itself.” (Burch, 2005)

The different views may be summarized into three major perspectives: the pro-technology approach; the prevailing market logic approach; and the complex social approach. In the first approach, emphasis is laid on the central role of technology as a development factor, mainly referring to ICTs and therefore to a linear relationship between both aspects. The development possibilities of societies, and even individuals, would be closely linked to their possibilities of connecting and having access to ICTs – and, particularly, to the Internet. In this approach, policies play an important role in promoting such access, so that this becomes reflected on integral development processes.

It is worth making some clarifications regarding the role of technology in social analyses. Studies on technology have been subject to determinisms that have reduced their interpretation to one among the many existing explanatory dimensions. Technological determinism has been of significant importance in social studies and within them technology is regarded as the autonomous factor that promotes social change. Cultural determinism has also encouraged ethnocentric interpretations about technologies and their applications.

However, other theoretical and research approaches give an account of the complexity of the technology phenomenon and how this forms part of the social dynamics by means of the interaction among the different processes involved. The historical context, the culture in which such phenomenon becomes generated and promoted, the dynamics of power – both local and global – from which it emerges, its relationship with market dynamics, its institutional insertion, among others, represent constitutive factors of innovation. These

factors are limiting and constraining its dissemination and importance. Yet, it should not be appropriate to reduce the phenomenon to the above dimensions and thus establish a social determinism. “Purely technical” elements also have their own dynamic and logic. (Aibar, 2002, p.8 - 9)

The market approach gives the same strength to technology but maintains that the State’s own dynamic and that of private agents should be in charge of disseminating and extending connections and access. ICTs are regarded as neutral tools and technological progress as relentless. According to this view, this is what encourages the development of societies and the State should only intervene in the case of marginalized sectors.

The third approach involves a more complex view, in which technology is just another aspect within the diversity of elements to be handled, including the social dimension and the problems of existing inequalities. In this vision, major changes are required in terms of policies and social structures if technological development is to have important repercussions on social development and reach most part of the population. In this case, technology and its use are not considered to be alien to the interests, capacities and needs of the different stakeholders involved.

To sum up, the perspective from which the IKS is analyzed has direct implications on the actions and measures to be taken by the different stakeholders involved – political actors, governments, international institutions, etc. Latin American societies, in particular, should build their own perspective – as peripheral societies within the IKS. As societies in which the centers of power and the main nodes of the knowledge economy are nowhere to be found; societies in which ICTs and national systems of knowledge production are not consolidated; societies in which policies are scarce and often directed by guidelines set forth in core countries, and thus more appropriate for such social realities; societies in which the IKS is coupled with social inequalities and, in some cases, with political instability.

There follows a review of the documents put forward in the regional technical and governmental preparatory meetings for the second phase of the WSIS. From these documents, the existing tendencies will be construed and the potential impacts on policies at regional and national level will be analyzed.

### **3. Latin American Views on the Information and Knowledge Society: Review of preparatory documents**

In this chapter, we will be analyzing the documents resulting from processes, events and meetings in Latin America and the Caribbean that were preparatory for – or contributed to – the WSIS. This includes Declarations, Plans of Action, Commitments, Consensus, and Recommendations, among others.

The documents being analyzed are mostly the result of interministerial or governmental meetings (see list of documents in Annex I). It is worth mentioning that these are negotiated texts and therefore include a diversity of “discourses” and/or concepts that have been articulated according to more or less situational dialogues and consensus. In that sense, and for the purposes of this paper, the following will be an individual analysis of documents rather than a global one. Nevertheless, it is worth making the following general remark: the documents analyzed and put forward in the above-mentioned intergovernmental contexts are all based on the basic principles of the United Nations and include declarations that are in agreement with such orientation. For instance:

“We declare our common desire and commitment to build a people-centred, inclusive and development-oriented Information Society, where everyone can create, access, utilize and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential in promoting their sustainable development and improving their quality of life, premised on the purposes and principles of the Charter of the United Nations and respecting fully and upholding the Universal Declaration of Human Rights. (...) Our challenge is to harness the potential of information and communication technology to promote the development goals of the Millennium Declaration...”<sup>6</sup>

The different trends or views included in the documents should, therefore, be understood as diverse approaches or paths towards achieving the development goals as it has been stated by the declarations on which they are based.

#### **Views on the IKS**

The analysis of the discussions and debates developed between the first and second phase of the WSIS to be held in Tunis in November 2005 is carried out together with the IKS analysis from a Latin American perspective.

IKS definitions are implicitly included in most documents. Therefore, the first important step to be taken is the study of the existing definitions trying to find an answer to the following question: what is understood in the analyzed documents by “information and knowledge society”? There appear, then the different notions: “information society”, “knowledge society”, “information and knowledge society”, which are sometimes used indifferently. According to the information obtained, the denomination adopted in each case does not correspond to a particular view or approach, but it is generally related to the terminology used in the convening of the corresponding meeting.

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<sup>6</sup>Declaration of Principles, WSIS, Geneva, December 12, 2003.

It is significant, though, that in most documents a distinction is made between the current state of the IKS and the one which is expected to be attained. No matter the name it is given, the idea of building an IKS which includes the values of equality, poverty eradication and democratisation of societies is discussed. This verification is supported by the fact that the IS as it is currently outlined, has increased inequalities not only in income and socio-economic terms, but also in terms of information and technology access. The digital divide, mentioned in several documents, is an indication of this.

The meetings, strategies and concrete measures taken are justified according to these considerations. The debate and confrontation of ideas reflected in the documents, focus on the analysis and definition of the measures, policies and strategies in which they are to be framed.

In order to contextualize the preparatory documents for the second phase of the Summit, prior documents were studied. This analysis allows an understanding of the historic continuity of debates, as well as the dynamics which characterize these events.

### **Background: documents prior to the second phase of the WSIS (1999 – 2003)**

In Latin America, discussions on the issues of the IKS did not begin with the WSIS. In fact, in order to understand the process towards the second phase of the Summit, it is essential to consider the antecedents, particularly the preparation for the First Phase.

Several documents were put forward prior to the first phase of the WSIS in Geneva in December 2003<sup>7</sup>. From these documents arises a process which must neither be construed by a linear nor by a convergent approach. This process involved several actors and institutions and each document encloses the contingencies and circumstances surrounding the moment in which it was put forward.

#### *Florianopolis Declaration*

The first antecedent to this process at regional level is the Declaration of Florianopolis<sup>8</sup>. The main statements of this declaration are:

“Bearing in mind that allowing the evolution of the information and knowledge-based society to be guided solely by market mechanisms entails the risk of an amplification of the social gaps existing within our societies, the creation of new modes of exclusion, an increase in the negative aspects of globalization and a widening of the distances between developed and developing countries.” (Page 1.)

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<sup>7</sup> The following are incorporated to this analysis: Declaration of Florianopolis, Santa Catarina, Brazil, June 2000; Itacuruçá Declaration, Latin America and the Caribbean's Recommendations to UNESCO's III International Congress on Cyberspace's Ethical, Legal and Societal; Rio de Janeiro Declaration, Information and Communication Technologies for Development, June 2001; Tegucigalpa Consensus; Consultation Meeting , “Challenges and Opportunities of the Information Society” (Central America, Mexico, Cuba and Dominican Republic) UNESCO/ITU, October 2002; Declaration of Quito on the role played by Universities in the Information, February 2003, (ORCILAC and IESALC); Bavaro Declaration, January 2003.

<sup>8</sup> With the contribution of ECLAC's Secretariat, the Government of Brazil convened Latin American and Caribbean countries to prepare their participation in the high level segment called by the UN Economic and Social Council, New York, July 2000.

This is the main starting point: if the market was able to lead the process of introducing Latin America to the IKS there would be no need for specific policies or intergovernmental meetings. However, this is clearly not implying that the different views on the importance given to the market and the private sector have been homogeneous throughout the different meetings.

The lines of action recommended by the Declaration of Florianopolis make broad reference to the main components needed for endogenous development within the framework of the IKS. This arises from statements such as the following:

“...and supporting research, innovation and technological development in general and at the level of individual business enterprises...” (Item1);

“...teacher training as an essential basis for enabling the population to play a positive role in new forms of knowledge-based production, while also promoting the access and use of information and communications technologies in methodologies designed to accelerate the educational processes of marginalized population groups and those living in extreme poverty.” (Item 2);

“Encourage the development of technology-based firms by creating such mechanisms as venture capital funds, technology incentive zones and business incubators with the participation of academic institutions, research centres and the private sector while also promoting their national, regional and international integration through the use of advanced research and development networks.” (Item 6);

“Strengthen cultural and science and technology institutions so that they can take full advantage of information and communications technologies that will permit the generation and diffusion of diverse cultural contents of a regional, national or local nature via digital networks.” (Item 9);

“Reinforce the creation of joint mechanisms for the development, consolidation and marketing of high-technology products and services, such as software development, distance education and others” (Item 15);

“Foster the development of local, national and regional content in the native and official languages of the countries of the region and the residence of that content on regional servers with a view to rationalizing access for local and regional traffic and promoting its exchange via the most direct routes” (Item 18);

These items of the Declaration clearly aim at laying the foundations for the development of all the countries at stake, based on a view which not only considers economic aspects but also social and cultural aspects, as well as learning and innovation processes.

### *Itacuruçá Declaration*

The Itacuruçá Declaration was agreed in October 2000 within the framework of the Governmental Experts Consultative Meeting, Infoethics 2000, and under the auspices of UNESCO and the Government of Brazil.

In the outcome document of this meeting, the concept of “fair use” or legitimate use of the information was introduced within the framework of the protection of intellectual property rights, while supporting the access to intellectual property in such a way that “normal exploitation is not injured nor unjustified harm is caused to the author’s legitimate rights”.

Within this context and with strong emphasis placed on legislation, international support is sought in order to strengthen the communications infrastructure. The need for local content production aimed at public use is underlined, and the creation of a public regional space for integration purposes as well as the creation of a regional programme on the IS aimed at contributing to efforts carried out by the countries to “insert themselves fully into the digital era” are recommended. (Item 8)

*Rio de Janeiro Declaration 2001: Information and Communication Technologies for Development.*

The Intergovernmental Meeting on Information and Communication Technologies for Development took place in June 2001: the view of developing countries was convened by the Government of Brazil and held in Rio de Janeiro. Its goal was to “formally submit their views to the UN Economic and Social Council (ECOSOC) and to the G-8 on how to harness the opportunities posed by Information and Communication Technologies (ICTs) in favour of development”.

The declaration resulting from this meeting is a statement on the “major international initiatives on ICT for development such as the UN Information and Communications technologies Task Force (ICT Task Force) and the G8 Digital Opportunity Task Force (DOT Force), the World Bank’s InfoDev Programme, the World Economic Forum’s digital Divide Task Force and regional funding agencies initiatives”, expressing their views regarding the need for developing countries to adopt their own position on the risks and opportunities posed by digital technologies.

In this regard, they strongly support the proposals and recommendations made by the DOT Force, which were to be put forward in the next G-8 meeting in Genoa, considering at the same time that they reflect developing countries’ interests and needs. They also claim that, the clear support and commitment to the UN ICT Task Force by developed countries “would greatly enhance the prospects of success and continuity of cooperation that seeks to implement the Information Society in developing countries in a socially equitable and economically sustainable manner.”

Regarding contents, it is important to mention two aspects. According to the purposes of the meeting, technologies are given a central role in the solution of social and political problems. This is reflected in the document, particularly when they are referred to with regards to the “strengthening of the democratic system and the promotion of an efficient, egalitarian and sustainable development” as well as to “facilitate economic and social progress in areas such as education, health, culture, poverty eradication, youth training, gender equality, jobs and wealth creation, trade, agriculture, tourism and governmental transparency”.

Technology, in this case ICTs, appears as an independent variable as it is suggested that its mere introduction would contribute to solving political and socio-cultural problems, although these are components which respond to changes in the socio-productive structures and do not depend solely on technology.

Regarding the market's role, it is considered that "trusting the evolution of the Information and knowledge society only to market mechanisms entails the great risk of enlarging the digital divide both between developed and developing countries and between developing societies themselves and to the interior of each of them, thus creating new forms of exclusion".

In conclusion, this declaration is an example of coexistence of multiple views, although with a prevailing optimism regarding the possibilities of ICTs, to which excessive attributions are assigned.

### *Tegucigalpa Consensus*

The Tegucigalpa Consensus took place within the framework of the Consultation Meeting "Challenges and Opportunities of the Information Society" organized by UNESCO and ITU, with the cooperation of Hondutel and the Government of the Republic of Honduras.

Although this declaration refers to the sub-region made up by Central America, Cuba, Mexico and Dominican Republic, its content is anyway interesting and relevant for the rest of Latin America and important for the process analyzed in this document.

In item 1, the importance given to the defence and promotion of the cultural, patrimonial, linguistic and ethnic diversity framing the view of this sub-region on the IS is highlighted. It is stated that: "the challenge is focusing on the pillars of a society that promotes the knowledge and creativity of its citizens, thus implying that it will pay special attention to the education and training processes in order to advance in the construction of knowledge" These are important references made by the document in connection with capacity building for the IKS. It is worth pointing out that this is the first declaration to include gender-related terminology.

In Item 5 there is an important remark: "Beyond the sole concern for the infrastructure and the economic dimension of the IS, which are important, it is also relevant to put these elements into an integral framework that places human beings at the center of development for a worthy life within our societies". At the beginning of this item the role of ICTs is contextualized: "the ICTs must be at the service of development, the eradication of poverty, democratic governing and the preservation of common surrounding and the environment. This implies the strengthening of the different institutions, and actors as well as the capacities of local, national and regional development". It is worth highlighting the difference in meaning between the expressions "put ICTs at the service of..." and to claim that "through the ICTs it shall be achieved..."

From those items it is possible to notice a more complex view, aimed at the social aspects of IS processes. These are not reduced to the "introduction of ICTs" but are considered as a larger set of actors and institutions which influence development possibilities and capacities.

### *Quito Declaration on the role played by universities on the Information Society.*

In February, 2003 the Regional Virtual Universities Seminar for Latin America and the Caribbean was held in Quito. Quito's Declaration on the role played by the universities in the information society, which resulted from this seminar, focuses on the importance of

distance education, giving relative importance to other roles played by universities in the IS and their particular contribution to the countries of the region - central issue of the seminar. The exception is given by item c, which refers to the multiplicity of functions of tertiary education. It is highlighted as a constitutive pillar of the generation, management, preservation, exchange, transfer and application of knowledge related to the processes of human development. Consequently, the need for providing people with increased access to a high quality tertiary education in order to improve social and economical well-being is pointed out. These are two ideas which, in general, are not included in other declarations.

#### *Bavaro Declaration*

The Bavaro Declaration is the main antecedent to the meetings held in the lead up to the WSIS. It was put forward at the Regional Ministerial Conference, Preparatory of Latin America and the Caribbean for the first phase of the WSIS, organized with the support of ECLAC in January 2003. This document is longer and more developed than those previously mentioned.

In the declarative part of the document, the countries express their commitment to the “generation of equal opportunities for access and use of information and communication technologies, they are committed to take actions aimed at bridging the digital divide, which both reflects and has influence on the differences existing between and within countries in terms of economic, social and cultural aspects, education, health and access to knowledge”. This approach places those issues related to the IKS within the sphere of ICTs and the unequal access to them, as well as on the impact it causes on socio-economic gaps. The so-called digital divide arises as an indicator of these inequalities.

In the same sense, it affirms that “The use and benefit of information and communication technologies (ICTs) are essential in order to meet the needs of individuals, communities and society in general” (item 1 a).

Within this context, the central aim is to provide universal access to ICTs, in accordance to the legal framework. Some aspects of this sort of dissemination are emphasised on item 1g: “Information and communication technologies foster the flow and exchange of information, encourage the transfer of knowledge and stimulate innovation and human capital formation while helping to ensure that a free flow of information coexists with respect for life, private property, privacy, intellectual property, confidentiality and security.”

Clearly, none of these transformations can be attributed to ICTs, taking into account that they do not act as autonomous factors. Those in charge of giving meaning to their actions are people, institutions and organizations making decisions, selecting contents and directing policies to be applied. This paragraph encloses a technological determinism that is difficult to be maintained by means of empirical evidence but which eventually supports and lays the foundations for action and policy proposals. On the other hand, the regulations set forth in this paragraph regarding the limits to the flow of information, in which the value of property is highlighted, are put forward in an innovative way.

Item 2b refers to the need for expansion of information and communication infrastructures and technological innovation, as well as for universal access policies to promote the best possible connectivity at a “reasonable price”. In this way, access alternatives (for example at community level) should be part of an agenda designed to bridge the digital divide.

In item 2c the participation of the national industry of applications and services is encouraged, and within policies themselves, priority is given to applications for social purposes (health, education, etc.).

The declaration emphasizes the role played by regulatory frameworks and legal principles. It states that regulatory bodies must ensure access to markets under conditions of competitiveness, quality, diversity and state-of-the-art technologies, promoting competitiveness and an ongoing modernization of networks and services (Item 2f). Finally, it makes reference to the need for preventing the “regional information society from being neither locked out of global trends nor locked into particular technological solutions. Consideration shall be given to open source code standards, services and models.”

In the same declaration there is a call for the participation of local enterprises in development and the need for the creation of a virtuous circle to boost local activity with a greater technological content. (Item 2i) The needs for ICT qualified human capital are also highlighted.

A section included within item 2l should be highlighted, which states: “Steps should be taken to promote broad-based, inclusive access to the information society for the population, as suppliers, innovators, creators and originators of content and applications”. Likewise, in item 2m, reference is made to the importance of strengthening local micro-enterprises as well as small and medium-sized enterprises through their integration into the digital economy, and to the fact that public policies must foster innovation and entrepreneurship. Attention was also drawn to the importance of the development of technology-based enterprises, through such mechanisms as venture capital funds, technology parks and business incubators together with the participation of academic institutions and research networks.

In the same item of the declaration, emphasis is placed on the introduction of informatics into trade sectors - such as banking - in order to facilitate online transactions, customs, e-commerce, and at the same time reference is made to the importance of having a modern physical infrastructure, tending to create a reliable atmosphere with a consumer-protective legislation. In this regard item 2v proposes “To devote special attention to the adoption of strategies and policies to facilitate the penetration of information technologies for the promotion of exports and investment in the region”.

Thus, two different views are articulated throughout the declaration: one which states that by introducing ICTs, it will be possible to achieve economic, social and political changes and another which gives more importance to the transformations in the socio-productive structure and its different actors, considering the ICTs as a tool to this end. The first is mainly oriented towards a global economy, while the second places more emphasis on the endogenous or local development.

### *Summary*

To sum up, the regional documents that provide background information on the process of the second phase of the WSIS, give an account of the coexistence and articulation of different views within the region – which is reflected on the dynamics of meetings and on the texts of the declarations resulting from them. The view of the Florianopolis Declaration is remarkably more inclined towards local development, while a later trend

tends towards the incorporation of a more technology-based approach which appears further structured and stronger in the Bavaro Declaration.

In general, there is agreement in terms of starting points - based on texts previously agreed within the United Nations. However, there are differences in specific social aspects that are considered further on. In the first view, social measures appear as compensatory elements for the inequalities brought about by the market, while in the second one the social dimension is introduced in connection with the economic factor so as to prompt changing processes in the productive structures as a development factor. This evidences a debate linked to views expressed long ago and also to perspectives on the development processes and policies in more general terms.

Alongside the global processes, some progress is noticed in the above documents, which evolve from being just declarations to making specific suggestions and then recommendations, and have recently become Plans of Action including aims and deadlines.

## 4. Definition of a position within Latin America and the Caribbean for the WSIS

In this section, there is a review of elements arising from a series of discussions and proposals within the Latin American process between the first and second phase of the WSIS.

At intergovernmental level, the results of two key events are analyzed: the Latin American and Caribbean Regional Technical Preparatory Meeting for the World Summit on the Information Society and the 10<sup>th</sup> Biennial Advising Meeting for the INFOLAC programme,<sup>9</sup> held in Quito from 4 to 6 May 2005 and the Regional Preparatory Ministerial Conference of Latin America and the Caribbean for the Second Phase of the World Summit on the Information Society,<sup>10</sup> held in Rio de Janeiro from 8 to 10 June 2005. There follows a review of the documents produced during those meetings (Declaration and Plan of Action) and an analysis carried out by means of the participation in those events<sup>11</sup>.

### Technical preparatory meeting – Quito

The main input for this meeting was the document put forward by ECLAC, *Towards a Plan of Action for the Information Society in Latin America and the Caribbean. eLAC 2007*.<sup>12</sup> The main purpose of the meeting - taking ECLAC's document as starting point - was to advance in the formulation of a draft Regional Action Plan to be used later as negotiation basis in the Conference to be held in Rio. Upon starting discussions in Quito, an agreement was reached to work only on the annex: *Goals of the Plan of Action for the Information Society in Latin America and the Caribbean*, focusing on the proposal of quantitative goals (mostly set forth by 2007) and avoiding the discussion of basic concepts and definitions included in the original document.

An element that covered the whole work on the document was the debate on the contents linked to ICTs. Underlying this debate there are different views about the role to be played by Latin America and the Caribbean in the global information society. In this sense, attention was drawn to the lack of proposals for a more active role of the region in terms of the production of technology, information and knowledge in the draft document.<sup>13</sup>

As an example of this, in the initial proposal the only reference made to the academy is found in Goal 8, referring to Clara network. Nor there is any goal related to the creation, production of technology, knowledge or value-added products.

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<sup>9</sup> [http://portal.unesco.org/en/ev.php-URL\\_ID=27169&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/en/ev.php-URL_ID=27169&URL_DO=DO_TOPIC&URL_SECTION=201.html)

<sup>10</sup> <http://www.riocmsi.gov.br/>

<sup>11</sup> This analysis is based on the participant-observation method. In this technique the researcher joins the dynamic of the process subject to study and becomes another participant. From his/her participation, the researcher carries out an analysis of the dynamics and contents of the process, and faces the challenge of overcoming a partial or biased analysis of facts. He/she can take advantage of having access to first-hand information and to particulars regarding the fact dynamics.

<sup>12</sup> It may be consulted at: [http://wsispapers.choike.org/hacia\\_elac\\_2007\\_esp.pdf](http://wsispapers.choike.org/hacia_elac_2007_esp.pdf)

<sup>13</sup> For example, in the initial proposal, the only reference made to the academy and/or university is that which refers to the Clara network ([www.redclara.net/](http://www.redclara.net/)) (Goal 8). Nor there is any goal related to the creation or production of value added technology, knowledge or products.

Some of the delegations taking part<sup>14</sup> presented a document for consideration, including additional goals that reflect concern about aspects related to the production of technology, knowledge, infrastructure and contents in Latin America, focusing these elements on the specific development problems of the countries within the region.

The proposal includes the following items, which were included in the final document of the meeting:

- Promote the development of common indicators to jointly quantify knowledge access and ICT use.
- Create and foster regional cooperation networks among institutions and technological poles and parks, allowing the participation of scientific and technology institutions in the systems of innovation and national production of high value-added products and services and promoting the development of technical and scientific local expertise.
- Encourage local creation and regional exchange of contents that would strengthen citizen participation and human development, particularly those related to science, technology, digital inclusion and job training.
- Promote the development of the Local Technology Industry in the area of input materials and technology for development as well as the maintenance of infrastructure.
- Set up a regional working group to study the development and challenges of creative industries/content development industries, establishing regional and global coordination mechanisms, seeking solutions for common problems such as the financing of intangible goods, the distribution of cultural and communication goods and services in the region and the improvement of local capacities for the production of contents with due respect to cultural diversity.

Other substantial modifications proposed dealt with the incorporation of aspects of regional identity into the goals set forth, as well as inequalities within regions and countries in terms of issues such as access. Some of these elements were included in the “Quito revision” of the *eLAC 2007*<sup>15</sup> document, whose final version was in charge of the coordination of the Group of Latin American and Caribbean countries (GRULAC) at the International Telecommunication Union (ITU), in Geneva.

### *Participation of civil society*

A small number of civil society organizations were invited to participate as observers in the Quito meeting and had the possibility to make contributions during a space devoted to this end at one of the sessions. In this way, they put forward their proposals for the document on goals,<sup>16</sup> as well as a document<sup>17</sup> proposing some general criteria to be considered as being transversal to goals. Among these criteria were: a) that they should reflect UN principles and, particularly, their coordination with MDGs; b) to consider the gender dimension; c) to consider a broad perspective on ICTs, not only limited to the Internet; d)

<sup>14</sup> The original version was proposed by Argentina, Brazil, Bolivia, Chile, Cuba, Peru, Uruguay and Venezuela.

<sup>15</sup> It can be consulted at: [http://wsispapers.choike.org/elac\\_2007\\_final\\_quito.pdf](http://wsispapers.choike.org/elac_2007_final_quito.pdf)

<sup>16</sup> [http://wsispapers.choike.org/recomendaciones\\_metas\\_elac2007.pdf](http://wsispapers.choike.org/recomendaciones_metas_elac2007.pdf)

<sup>17</sup> *General criteria proposed by civil society organizations for the Regional Action Plan eLAC 2007*. Quito, 4-6 May 2005.

Signed by: Latin American Information Agency, Latin American Association of Radio Broadcasting Education, World Association of Community Radio Broadcasters (AMARC) in LAC, Third World Institute (ITeM), APC ICT Policy Monitor, DAWN Network, Sustainable Development Network, Information Network for the Third Sector (RITS), Infodesarrollo.ec Network  
[http://wsispapers.choike.org/criterios\\_generales\\_elac.pdf](http://wsispapers.choike.org/criterios_generales_elac.pdf)

to consider a broad participation when setting up the Working Groups proposed and to make financing sources known. Of these four core points, only the first one is partially taken into consideration in the Quito document.

The document prepared by civil society supports some of the proposals made by governments, and adds new elements, as well as two new aims. One is focused on the promotion of information and communication initiatives aimed at strengthening citizen participation and the other considers the gender dimension as a focal point transversal to eLAC 2007. These two proposals were not included in the Plan of Action.

The Meeting held in Quito was framed within the process of negotiation of the Plan of Action of Latin America and the Caribbean leading up to the WSIS. In that respect, the GRULAC instance (group of Latin American and Caribbean countries) that took place at ITU between the Meeting in Quito and the Conference in Rio de Janeiro - chaired by Nicaragua - became the reference for negotiations and the one in charge of carrying on the task of adding contributions to the document.

### **Interministerial Conference of Rio de Janeiro**

The event that took place in Rio de Janeiro is part of the process that has been carried out by LAC countries since the Geneva Summit in 2003.

Within the framework of this process, by the time of the meeting in Rio, important progress had been made with respect to document contents and also in what refers to the realization of views and perspectives on the meaning of the IS for LAC as well as its implications in terms of policies.

From the draft documents prepared at the preparatory meeting held in Quito and the compilation of comments carried out by the ITU-GRULAC Coordination, the Rio Conference made progress in building a LAC agenda towards the IS.

Work was intense during the three-day meeting which concluded with the adoption of a Declaration of Principles: "*The Rio Commitment*" and a Regional Action Plan: "*eLAC 2007*", aimed at the fulfilment of 30 goals by all LAC countries by 2007.<sup>18</sup>

In the meeting held in Rio substantial modifications were made to the draft which had been prepared in the previous meeting in Quito, adding important dimensions and aspects which had not been considered in the original version. The different aims were modified, but new goals were also added which are eloquent regarding these changes.

The global logic and the position of the region in the WSIS was a dimension under discussion. The Rio Commitment represents the basic document but some instances are to come where these positions may continue to change in one way or another.

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<sup>18</sup> Both documents are available at: [www.cepal.org/socinfo/elac/](http://www.cepal.org/socinfo/elac/)

## Key issues and characterisation of the debate

Just as it happens at a global level, there are different perspectives coexisting with regard to the IS at the regional level. On the one hand, there is a view that considers this phenomenon in very complex terms, with an approach based on human rights and focused on aspects related to social development. This perspective is closely related to the principles put forward by civil society and to the documents developed by international organizations such as UNESCO. In the Latin American process, this view was expressed through the effort aimed at creating a perspective of the IS from Latin American countries, regarding them not as mere ICT and content users but also as current or potential producers of technology and related products. This view is clearly reflected on item 20 of the Rio Commitment, for example:

“20. Our firm conviction that all individuals should take an active part in an information society based on shared knowledge, not only as users of new technologies but also as agents of development and content production. To achieve this, we reaffirm the need for promoting the free flow of ideas and information, and the development of a regional and global culture of knowledge sharing.”

In connection with endogenous or local development, Goal 11 of the Plan of Action is significant and a good example:

<b>11 Science and technology</b>	11.1 Promote national, subregional and regional interactive and cooperative networks among scientific and technological institutions, involving them in local production systems and promoting the creation of technology poles and parks in the countries of the region that can develop innovation activities for the production of high-added-value goods and services.
11.2 Promote the development of local technology industries involved in the supply of inputs and technology for the development and maintenance of infrastructure.	
11.3 Promote production and regional exchange of local, national and regional content, and its indexation by and for all actors of society, that strengthen citizen participation and human development, especially content linked to science, technology, digital inclusion and training for employment.	

In the original conception of the document, the Science and Technology issues are not considered as aspects to be included in an IS-related Plan of Action.<sup>19</sup>

At the opposite end there could be a view that focuses on the market and the private sector as main stakeholders within the process. From this perspective, both the social and community aspects and the relation of the IS with the endogenous development processes of these countries remain limited to the minimum scope. The social dimension is linked to technology access – particularly the Internet – and to digital literacy for more distant social groups, addressing the “access gap” only in terms of specific policies for excluded groups.

There is also an “intermediate” view, which highlights the importance of technologies for achieving social progress and aims to promote the development of technology industries, by engaging them in local productive systems.

<sup>19</sup> See version of the Annex to the Non-official Paper, prepared by ECLAC towards the Quito Meeting.

By way of example, Goal 16 is hereby quoted:

<b>16 Electronic education</b>	16.1 Promote and strengthen national networks of educational portals, including public, private and civil society initiatives, with special attention being devoted to the Millennium Development Goals on universal primary education and to multicultural content, especially content oriented towards indigenous peoples.
16.2 Link national educational portals with a view to establishing a Latin American and Caribbean network of educational portals so that educational experiences and content can be shared, and promote the adaptation, localization and development of educational content for dissemination via this network.	

Although it was formulated so, this goal was enriched in the process since, originally, it only made reference to the interconnection of educational portals:

“To promote the interconnection of education portals from all countries of the region within networks of education portals, as well as the cooperation with civil society and private sector portals.”<sup>20</sup>

The role of other stakeholders within the IS, in addition to governments, was one of the controversial issues and came up transversally during debates. The importance of allowing civil society – social organizations, in particular – and the academic community to participate was present in the discussion of several goals.

Underlying these three views there are also different perspectives regarding the role to be played by the State and its policies. While in the second case it is understood that the State should limit its participation to the creation of a suitable environment for extending infrastructure, the other two views consider that the State should be involved in a more extensive and proactive way throughout the development process. A general definition is condensed on item 3 of the Commitment:

“3. Our commitment, as Governments, to facilitate the inclusion of all stakeholders – the private sector, civil society, the scientific and academic community, and other interested parties – in the process of building an information society based on shared knowledge;”

The significance of the private sector in the achievement of goals was also under discussion. In this case, positions varied according to the issue in question since the “private sector” is made up of the local industry, local small and medium-sized enterprises, or multinational companies. An example is item 15 of the Rio Commitment:

“15. Our interest to promote the growth of e-Commerce and e-Business, by facilitating the digital inclusion and capacity building of micro-, small and medium-sized enterprises (MSMEs);”

In the negotiation of the text of the “Declaration of Rio” another controversial issue came up in connection with the article 17bis. This item gave rise to the discussion on the importance of local media – mainly community media – and the criteria for the encouragement and promotion of the same. The criteria in question being “legality” and “equal opportunities”<sup>21</sup>. The opposition of some governments to include community media

<sup>20</sup> Goal 11 from the original Document of the Plan of Action.

<sup>21</sup> See Annex of item 18 from the Plan of Action

was not exclusive to the discussion of this item but it occurred throughout the Conference. This is an example of the difference in visions and approaches between countries which had already been evident in the debates at the Quito Technical Meeting.

With the background provided by these different views, the work of drafting the texts agreed upon was organized around the two papers mentioned: the “*Declaration of Rio*” and the “*Plan of Action eLAC 2007*”. This organization was complex and the debate eventually focused on three working groups, namely: “*Internet governance*”, “*free software*”, and a third one taking up the remaining issues for discussion.

The group on “free software” modified the corresponding item of the Declaration of Rio, as well as the Plan of Action goals in connection with it. On this item there were two clearly opposed positions: one of them in favour of supporting and fostering the development of free software and its incorporation into public administration, education and society as a whole; and a very different position, which undertook the defence of proprietary software, emphasizing free software limitations.

The group’s work settled the discussion through an intermediate formulation which states the necessity to analyze the advantages of both free and proprietary software, and the advantages, drawbacks and hindrances for their transition and compatibilization. The text approved at the plenary session is as follows<sup>22</sup>:

<b>8 Software</b>	8.1 In the context of efficiency and social inclusion, establish a regional working group to exchange experiences and criteria used for the development and use of open-source software and free software, which includes studies on technical, economic, organizational, training and security challenges.
	8.2 In the context of criteria of efficiency and social inclusion, the group will also analyze the use of proprietary software in order to disseminate best practices and to maximize efficiency, coexistence with other forms of licensing, interoperability and possibilities of migration.
	8.3 Promote and encourage the development of the software industry, content, applications and informatics services, using such instruments as an appropriate legal framework, measures to strengthen the university-enterprise relationship, measures to promote complementary and cooperative business partnerships, human resources development and the expansion of access to markets.

The group on “Internet governance” discussed the matter in accordance with the importance given to this item on the agenda of the WSIS global process. The discussion on Internet governance in the region shows the different positions adopted at global level. Its transfer to the market, the creation of specialized bodies, delegation of management and administration to existing international organizations are, inter alia, the proposals at stake – upon which no global consensus has been reached as of yet.

Since at the time of the Rio Conference the United Nations Working Group on Internet Governance (WGIG)<sup>23</sup> had not yet submitted its final report, the following definite text was agreed upon for the respective goal:

<sup>22</sup> See Annex of item 8 from the Plan of Action

<sup>23</sup> <http://www.wgig.org>

<b>14 Internet governance</b>	Taking into account the “Geneva principles” adopted in the first phase of the World Summit, particularly those of multilateralism, transparency and democracy in Internet governance and ongoing initiatives:
14.1 Promote regional dialogues, exchanges and cooperation on national experiences in Internet governance; training in Internet resource management (domain names, IP numbers and protocols); international interconnection costs, cyber-security, spam, and related institutional and technological aspects.	
14.2 Participate actively in the tasks of the Working Group on Internet Governance of the United Nations, while it exists.	

This working group’s suggestion to the members of the plenary meeting was, in short, that they should promote the exchange of views and regional cooperation on experiences connected with the issue, and participate actively in the WGIG’s tasks while it exists – within the framework of principles such as multilateralism, transparency and democracy as regards Internet governance. They also emphasized the importance of continuing the debate after the Second Phase of the WSIS to be held in Tunis.<sup>24</sup>

In a sense, the declaration arisen from the Rio Conference might be interpreted as a postponement of definite decisions.

As regards financing for the reduction of the digital divide, an extension and modifications were proposed<sup>25</sup> on the understanding that what had been included on the draft Document was rather vague and insufficient. The following articles were proposed and, after some modifications, incorporated<sup>26</sup>.

<b>23 Financing</b>	23.1 Establish a working group with members of public, private, subregional, regional and international organizations to evaluate national and regional needs for financing ICT development.
23.2 Suggest initiatives for optimizing the use of financial resources and instruments and, if necessary, propose new ones, with the aim of mobilizing more resources, considering subregional, regional and international financial and cooperation agencies and the particular features of each country.	

This debate is highly significant for LAC countries and it is a major item in the WSIS global discussion as well.

### Implementation and follow-up

Several bodies with a regional field of action having been involved in the process – ECLAC and UNESCO, among others – one of the major aspects upon which no agreement was reached at the Rio Commitment refers to institutional spaces for the joint elaboration and follow-up of a Latin American perspective, putting off the discussion of this issue to subsequent negotiations – such as the preparatory meetings prior to WSIS.

<sup>24</sup> See annex of Plan of Action, goal 14.1 and 14.2 and item 27 of the Declaration.

<sup>25</sup> By the delegation of Uruguay.

<sup>26</sup> See annex, goal 23 of the Plan of Action.

### *Participation of civil society*

At the Conference held in Rio de Janeiro, civil society organizations participated as observers – being allowed to attend the opening and closing sessions, as well as parallel events – although they could not witness debates. Those civil society organizations invited to the conference participated on two occasions at the plenary session, on 8 and 10 June 2005. On the last occasion, civil society expressed its disagreement with the fact that at the meeting in Rio de Janeiro “the mechanisms of participation and rules of procedure established within the framework of the WSIS were not respected, thus preventing the participation of delegates from civil society in the debates and working meetings as well as the appropriate access to documents under discussion”<sup>27</sup>.

### **Focal points of discussion**

The different perspectives previously described give rise to questions and debate points aimed at the development of Latin American strategies towards the IKS.

By way of systematization, there follows a list of issues suggested at some of the regional debates, which should be studied more thoroughly:

<b>Issues</b>	<b>Debate subjects</b>	<b>General questions</b>
Knowledge property	Rules that govern intellectual property systems, particularly patents and copyrights. How these systems promote the privatisation of knowledge which remains in the hands of large corporations; Dissemination and use of local, cultural, native and identity-based knowledge of Latin American societies.	Who owns the cultural, biological and eventually digital property of Latin America? Which is the most suitable patent and copyrights system to the reality of the region? Should knowledge be considered as a public good?
Production of technology	The possibilities of Latin America to become globally inserted as producer of technology as opposed to the idea that these spaces cannot possibly be conquered.	Are there possibilities to establish regional strategies for technology production? Is the Latin American space within the global market limited to that of producer of raw materials?
Digital identity and culture	The creation of cultural contents and products by using multimedia and convergent new technologies; the need to feed Internet with Latin American information, the digitalization of the historical and cultural heritage, the digital back-up of collective memory. Strengthening of Latin American identities.	Which are the priorities and how should they be carried out? Who are those interested in systematizing, digitalizing and making this information public? Who would be benefited – markets, local societies?
Software (free vs. proprietary)	This is a debate that takes place at international level. In the case of Latin	In order to strengthen the local industry, is it profitable

<sup>27</sup> Participation of civil society organizations, June 10, 2005, Rio de Janeiro. (<http://www.choike.org/nuevo/informes/2968.html>)

	America, there is an incipient software and computing service industry which defends proprietary software. On the other hand, certain consensus has been reached regarding the advantages of free software in terms of costs and democratizing aspects.	for the State to make purchases from the local industry? Would the local industry be strengthened by the generalized expansion of free software to all possible areas, but above all to education, thus generating enabling environments in terms of innovation and learning?
Capacity building	The training of professionals and people in general, the infrastructure conditions and the extent to which education, technology and scientific production are valued.	Which dimensions and issues should be given priority when talking about training according to the local and regional realities?
Market role	The feasibility of technological innovations is not taken into account when dealing with financial support, regulation, promotion, policies and credits to be provided by the State. The constraints faced by countries in this respect are evident - priorities in budget distribution should also be reconsidered. Also, it should be consider that most telecommunication companies in the region have been privatized and they are key stakeholders.	What role is played by the market? What are the possibilities of public policies? Which is the degree of independence in terms of processes of infrastructure generation and their subsequent implementation? Which is the regulatory framework?
Community access	Telecentres and centres represent important elements in terms of the creation, promotion and capillarity of technologies for social use. However, their sustainability should be analyzed: their closing down when they do not offer tools to solve people's problems, their lack of feasibility when there is no technical and/or financial support, etc.	Should community centres be offered technological support? Should telecentres be endowed with social and cultural projects and aims?

## 5. General conclusions and implications for policies

The different definitions of the IKS involve a debate on the depth and relevance of the changes experienced, implying at the same time a diversity of conceptions on this “society”. Some perspectives aim their effort to defining and characterizing the fast and ongoing social transformations. Other definitions add a connotation of value, thus naming the society to be achieved. The strategies are also diverse, ranging from changes in power relationships – local and/or global – to policies aimed at reaching stages already achieved by other societies.

Upon analysis of the empirical evidence put forward in the previous chapters, the following conclusions have been reached. The questions which gave rise to them are in connection with the expression of the IKS in the Latin American region. One of the aims was to characterize approaches starting from the recent preparatory debates towards WSIS and their links to policies.

The papers discussed show negotiations, which implies that there are a diversity of issues and approaches within them showing different, or opposed, conceptions of the IKS. The analysis focused on marking out and interpreting these differences, and these conclusions also refer to it.

According to the changes experienced within the IKS, it expresses itself within the productive, financial, and labour organization environments, the governments, and in the context of sociability and social organizations. In the papers resulting from the Quito Meeting and the Ministerial Conference held in Rio de Janeiro, there appear aspects related to the financial and productive areas, but the emphasis, in these cases, is placed on the impact that the introduction of ICTs as tools has on them.

Governmental policies are seen as the most important means for the achievement of goals – which is consistent with the kind of meeting and papers since they are governmental commitments. However, there are other stakeholders present who must be acknowledged. The actions by civil society, private sector, and academic community are mentioned in some of the goals set forth in the Plan of Action eLAC 2007. The references are yet of a general sort and there is no clear view on the private sector or the business sector that is being referred to – but for the specific goal concerning micro- and medium-sized enterprises.

Universities and the academic sector do not appear with the leading role they should have, especially considering they are the main producers of science and technologies. Nor innovation, science and technology are given a place of importance in the approved texts, which is inconsistent with the major significance they are given within the IKS. This absence represents a major risk, since recommendations are not mainly and consistently aimed at generating a virtuous circle between science and technology, productive environment and use of ICTs for its organization.

A technology-based conception prevails in many of the goals set forth. Technologies are introduced in isolation and every one of them is an end in itself, indirectly appearing as a solution to social problems and not joining organizational or institutional processes. Obviously, the proposed inclusion of technologies may be aimed at a change in the

organizational paradigm – *e-government* measures, for instance – but said inclusion will not bring about profound, transcendental changes by itself.

Also, technologies are not presented as direct means for democratization – new forms of social organization, citizen participation. These omissions may have strong implications in the changes sought through policies and may result in their failure due to the population's lack of commitment and the inability to bring about changes in relation to the investments and chances taken.

As for the views on the role played by the State, a typology of the proposals can be made. In order to examine the existing approaches, we could imagine a scale on which to situate the goals. At one end there would be the view which regards policy as a compensation for market flaws, given its incapacity to connect the entire population owing to low cost-effectiveness. It is then suggested to extend the role of the State concerning provision of connectivity and facilitating access to the populations who are most affected by the digital divide – providing them with connection to the Internet, for instance. At the opposite end of this scale we would find a State policy intervention, aimed at generating knowledge and local content, using multimedia community centres for social inclusion – job creation, citizenship, etc. – and promoting local identity within the global network.

As regards the economic aspects, at the first end we would find the encouragement to foreign investment in technology – by providing the technological infrastructure and basic capacity building, thus enhancing the country's appeal within the global market, for example. At the other end of the scale: a change in the socioeconomic and cultural structures – perhaps by promoting a local industry of high-added-value products connected with knowledge, encouraging the relationship between industry and the producers of local content, fostering innovation and generating sources for its financing.

Taking into account the existing deficiencies in Latin America and the importance of education within the IKS, it is worth noting the absence of this item in the papers. Literacy and its combination with new technologies, and the pedagogic and didactic challenge this entails, are not included – for instance, the necessary budgetary investment in the sector and the development of appropriate content to this end by using the advantages provided by ICTs – not even the media. Capacity building is also related to people's training regarding areas and subjects essential for development and inclusion into the IKS. Its implications and challenges for the curriculum guides in primary, secondary and tertiary education are not referred to in any of the goals in the papers either. As stated by Mercado (2005), a clear symptom of this deficiency is the proliferation of management and marketing courses in Latin American universities. Priority is given to the training of professionals for managing and running foreign companies and imported technology, not to the training of professionals capable of producing knowledge and technology, or managing local processes for their development.

The importance of ICTs in the technological paradigm and, therefore, in the way the IKS develops is unquestionable. A simplification of this verification is understanding that the incorporation of ICTs into all environments – social as well as economic – results in development. This conception arises not only from the papers analyzed but also from implemented projects and programmes, there existing few assessments of the latter. Some experiences, however, inform of the failure due to a reductionist approach in terms of the technological factor when not accompanied by activities encouraging capacity building (educational, organizational and institutional transformations). Some eLAC goals suffered

modifications and the incorporation of ICTs was complemented with training elements and social, cultural or developmental aims. This reduces the “consumerism” effect of sheer connectivity or “modernization”.

In this sense, it is worth pointing out the importance of analyzing “connectivity agendas” and their connection with the development priorities of every country and/or organization in question. ICTs are an instrument for complex, deep transformations. It is also true that, once incorporated, ICTs encourage and bring about phenomena and dynamics which are original and of their own – changes in organizational structures, increase in the meanings, final use and flow of information, new forms of sociability, among others. Nevertheless, if these socioeconomic and cultural aims are not included in policy-creation from the start, there is the risk that the incorporation of ICTs generates only consumers, not development processes.

Steps to improve technological infrastructure should be closely related to development policy priorities, which, in turn, should be accompanied by policies on content production, encouragement to information production, critical analysis and processing, and aims in agreement with people’s necessities and which provide solutions to the most pressing problems of productive, educational, social organizations. Socio-political and technological priorities must be organized jointly and be subject to permanent revisions, since they cause continual transformations – sometimes difficult to anticipate.

The institutional aspect of these policies must then be considered, since they reach horizontally across the pyramidal structures of the State and are therefore connected with all sectors. They all must commit themselves to the necessary transformations, and be coordinated in an efficient and plural way from the institutional point of view. At the same time, they must be capable of and empowered to manage said coordination and lead the process. The educational system, the environments for industrial and economic policy determination, the management of the necessary infrastructures, universities and research centres, ministries, etc., must all be coordinated through synergic work.

In view of the situation of many Latin American nations – where even electric power is not available everywhere – it is also important to coordinate the various business and governmental agendas and processes in order to implement integrated and convergent processes. The combination of the private enterprise with the development priorities stated by the government must become another focal point of this subject. The difficulties faced by local entrepreneurs to undertake this process must be tackled, since the lack of innovative spirit, and the lack of risk capital and investment in research and development is a serious hindrance for Latin America. This issue is referred to in some of the goals contained in the regional Plan of Action for the specific case of micro-, small and medium-sized enterprises.

## **Recommendations**

The most suitable policies and strategies for Latin America in the IKS are aimed at encouraging change and promoting development, introducing a new social and productive paradigm and creating conditions for building sustainable and endogenous capacities in all areas of society.

Implementing policies thus oriented means taking a chance towards technological advances redounding to the improvement in the quality of life and the democratization of Latin American societies. These aspects being two of the main development goals.

Below, some suggestions are provided in this respect:

- Accept the relevance of governmental policies. The State should play a relevant role in terms of setting guidelines, legal context and negotiation spaces aimed at the fulfilment of goals and their incidence on social development. The institutional character of these policies should be considered – they must be applicable throughout the pyramidal structure of States and therefore be inter-sectoral.
- Aim at the commitment and coordination with the different social stakeholders in an effective and plural way from the institutional point of view and at the same time to have the necessary capacities and powers to carry out such coordination and process. The education system, the industrial and economic agents, technology infrastructures, civil society organizations, universities, research centres, and corresponding ministries should all be coordinated by means of a synergic work.
- Private companies and their articulation with development priorities set by governments should be a focal point of policies. Their collaboration with knowledge and technology producers at a local level must be encouraged, so as to foster a virtuous circle between science and technology, productive sector and use of ICTs.
- Develop and strengthen technology infrastructure and basic training for the appropriation of technologies and their subsequent use in the different social, productive and cultural areas in order to achieve goals set according to the priorities of each population and aimed at solving the most pressing problems of societies. The socio-political and technological priorities should be articulated and subject to constant revision since they produce a dynamic of ongoing transformation and are sometimes difficult to anticipate.
- In view of the situation in many countries of the region, where a large number of people have no access to electric power networks, it is also important to coordinate the governmental and business agendas in order to implement integrated and convergent processes with regard to access to basic technologies.
- Provide resources and support to educational or knowledge-creating institutions – universities, research centres, etc. To take into account the necessary literacy skills and their articulation with the new technologies and pedagogical and didactic challenges, by using ICT assets, including traditional media. To encourage the training of people in issues and areas of top priority for development and inclusion into the IKS and to consider its implications in the proposal of curriculum guides for primary, secondary and tertiary education, aiming at giving priority to the training of professionals capable of creating knowledge and technology and managing local processes for their development.
- Implement policies and programmes to encourage the innovation and development of science and technology, with the participation of the different stakeholders; thus

regarding this process as the setting up of a social network for innovation and development.

- Encourage and extend ICT use as tools for social communication, productive development, improvement of working processes, governmental administration and social participation, among other areas, thus preventing ICTs from becoming an end in themselves and linking their introduction to training processes and clear social development goals.
- Foster the production of knowledge and local content, for the purpose of creating a local industry as well as promoting Latin American culture, thus strengthening local identity within the global network.
- Pursue policies aimed at social inclusion taking advantage of ICTs. For example, to establish and use multimedia community centres, not for a consumption or connection purpose but instead for labour and citizen purposes.

The research work carried out provides some clues as to the perspectives and paths to be followed in order to link the IKS to the development of LAC countries. The perspective from which the IKS is considered has direct implications for the actions and measures to be taken by the different stakeholders involved – political sector, governments, international institutions, citizens, entrepreneurs, etc. Being peripheral societies within the IKS, Latin American societies should build their own perspective.

The important thing is to reject pro-technology views and take steps aimed at creating new capacities and strengthening the already existing ones. These measures are to be implemented at all levels – local, national, sub-regional, regional and global – as framework for action. The idea is to include and coordinate the action of the different stakeholders within a process of endogenous development. Otherwise, current trends will keep consolidating and the socio-economic, political and cultural situation of Latin American societies will only be made worse.

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