SYNOPSIS OF THE STUDY ON THE BRAZILIAN PANORAMA IN DIGITAL INCLUSION ELABORATED FOR THE THIRD GENERAL ASSEMBLY OF IPAIT

INTRODUCTION

The surprising scientific evolution of Humanity has decisively marked the new century. The new media crossed borders, reduced geographical barriers and transformed societies, inaugurating a new era, the one of the *Information and Knowledge Society* . The outstanding mark of this time is the accelerated flow in which information and capitals circulate among the nations, by using digital technologies, like the Internet.

In this world rearrangement, that has begun with the process of economical globalization, grows in importance nation's level of knowledge and of access to the emerging technologies, as much as the political or management model adopted. The economic and social development is, more and more, closely linked to the Information and Communication technology (ICT).

However, in spite of governments' conviction that ICTs are today a passport for the globalized civilization, its spreading process repeats the economical paradigm: extreme concentration of capitals, that creates a ditch between rich and poor, as reflected in the level of income; in life conditions; and in the quality of jobs createdon overall countries' development.

Unfortunately, in that "Digital Revolution", the poor countries are once again late in the use of the technological tools for the promotion of socioeconomic growth, once most of them barely have access to the world of the computer science. As a result, they become prisoners of the disinformation and of the scientific delay. The impact of that inequality is, nowadays, one of the most disturbing challenges that worries the segments that look after the construction of a global society focused on the common good.

This document reflects one of those planetary efforts to turn palatable a process that is, at the same time, structuring and implosive;

transformer and devastating; rational and questioning. Countless questions lack answers, among which: who profits more with the *Information Society*? Who gets the best share of this *Planet Internet*? What will be the impact of the revolution of the information on the global differences? How to handle technology in the struggle against the economical, cultural and social inequalities?

The current scenario shows a critical risk in the sense that Information Society heads to perpetuating, or to worsening, the picture of social exclusion that it seeks to combat. In the wrong way of the *cyberdomination*, nations of different continents are engaged in the effort of reverting the disastrous tendency that ICT became as an instrument of segregation, and not as one of liberation for the less developed. In this document, its intended to draw a short panorama that offers, at the same time, diagnosis and ways to combat the social divide by using information tools.

Having as thematic axis "The Information Technologies on Behalf of Social Inclusion", the Third General Assembly of the International Association of Parliamentarians' for Information Technology, that will happen from 06 thru 8 June 2005, in Brasília, Brazil, is an undeniable demonstration of the search for a world synergy in favor of technology usage at the service of equality and social justice, expressed by the access of all to the benefits of humanity's progress.

DUEL AMONG TWO WORLDS

ICTs are in the track of the fast transformations promoted in modern societies. Besides they make possible the global flow of capitals and the multilateral trade, they also influence decisively international agreements, and the discussion of themes as intellectual property; safety of information and *e-Commerce*, even if, a lot of times, there is no definitive regulatory framework for those.

Although the concept *Information Society* is still being defined, the concern with the fair distribution of researches and technological discoveries, and of its financial resources is not new. Since former times, from science is demanded the task of promoting access'

universalization to technological advances, that are able to be produced at large scale, becoming more accessible to all. However, neither the automation of the agricultural production, nor the *Industrial Revolution*, nor the economical globalization managed to refrain the trend of sharpening the disparities among the nations.

The dilemma, therefore, is not limited to the opportunities presented individually to each nation, but touches essential humanitarian values, as the issue of world peace. As much as *Digital Revolution*, that has "information capital" as its a founding value, if it doesn't show itself a mark of people's redemption for the today dominated technologically, economically or culturally, there will only remain a possible destiny: the consolidation of a virtual world controlled by the efficiency of free market and for the owners of technology, bringing, as side effect, economical and financial instabilities and political disturbances.

In “The Galaxy of Internet"[1], Spanish sociologist Manuel Castells points out evidences of that trend towards marginalization, when analyzing the structure of the cyberspace. He alerts that the conditions in which the worldwide net of computers is expanding tend to sharpen digital inequalities. It happens because the great urban centers and the most favored classes have easy access to the resources of the Internet, while most of the people is being excluded.

To illustrate that statement, data originated from countries like South Africa reflect the serious distortions existent in the access to the ICTs. Although the country has obtained, in the last years, expressive growth in the access to the net, now less than 1% of the rural families and less than 11% of the blacks have access to telephone. Chile, Bolivia and other nations present similar scenario of inequality.[2]

In global terms, the second Report of the United Nations Conference on Trade and Development,[3] in 2002, stated that the developed countries had 386 million users of Internet, out of a world total of 626 million users, approximately, which corresponds to 62% of total users. On the other hand, Africa, Latin America and Caribbean were responsible for only 8% of the Internet users. Objectively, those data demonstrate that those nations see their chances of solving their

[1] CASTELLS, Manuel. “A Galáxia da Internet”, pp 206-215
[2] idem
[3] United Nations, United Nations Conference on Trade and Development UNCTAD, "E-commerce and Development Report 2004", New York and Geneva, 2004, p.2 sources: ITU and UNCTAD

endemic problems reduced, since Information Technology is today decisive for the level of quality of services rendered to the citizen, in a great number of areas, such as education, health, safety, sanitation and housing.

ICT AND CONCENTRATION OF WEALTH

Economic statistics corroborate the theory of the crucial importance of universalization of ICT policies in the fight against social exclusion. Presently, 50% of the wealth of developed countries come from the generation of Technology and Information, which responds for eight in each ten new jobs created. Aggregate global knowledge doubles every ten months, and is accelerating. In the mathematics of exclusion, rich nations hold about 16% of the world population and 80% of the global income.[4]

It may seem bizarre to assume that fractions of humanity can still be hit by poverty in such level of development and wealth of the nowadays world. It is considered, for instance, that the World Economy GDP is something around US$ 36,16 trillion.[5] A wealth that is, largely, concentrated in hands of few groups. Now, there are at least 64 thousand multinational conglomerates, that employ 80 million people approximately, according to estimates of the Organization for the Cooperation and Economic Development.[6] In compensation, we have four billion people who live on less than US$ 2 a day.

THE ROLE OF THE STATE IN INFOINCLUSION

The redistribution of the global wealth in the segment of ICT is in the kernel of the discussions of the World Summit On the Information Society, a project developed by United Nations - UN - and by

[4] World Bank (http://www.worldbank.org/data/databytopic/gdp.html)
[5] idem
[6] www.oecd.org

the International Union of Telecommunications - IUT. In the Plan of Action endorsed by representatives of 175 countries, it was set up the goal of offering access to ICT for at least 50% of world's population up to 2015.[7] The adopted mechanism would be the direct transfer of resources from companies or richer nations to the poorest. Among some advances and setbacks, one of the proposals placed in the center of the debate was the creation of a *Digital Solidarity Fund*, made up by the contribution of ICTexploring companies. The discussion has been dragging on there for several years, and due to countless pressures, the original proposal of creating an obligatory tax was finally abandoned.

The political difficulty in implementing wide-range actions as mentioned above indicates that it is up to the authorities the protagonists' role in leading the process of digital inclusion, either through wide, durable and maintainable national strategies, or through integrated politics and articulated among the administrative spheres (Federal, State and Municipal - or its equivalents national, regional and local) and among the political powers. Besides, it also relies on the Public Power the inductive action of new behaviors on behalf of a more socially responsible attitude from the productive sector.

However, it is known as a concurrent action, that can, even, be decisive, the participation of the organized civil society, represented by the third sector; research centers; universities, international organisms and international cooperation organs, as is the case of IPAIT.

Besides implementing politics and creating a favorable atmosphere for the sustainable development of the Information Society, through political and legal stable milestones that motivates competition, the governments also seek to enhance the governance mechanisms, for a more effective public administration, democratic and transparent. The main road is the "appropriation" of the Internet through the creation of digital government, or the so called *e-Government*.

The adoption of informatics by governments has as its main goals:[8] the electronic rendering of information and services; the regulation of information networks; transparency of the actions of the Public Power; digital literacy; cultural diffusion with emphasis in the preservation of local cultures; acquisitions of goods and government

[7] "Plan of Action of the World Summit on the Information Society - WSIS", item D-27.

[8] Study "E-governo no Brasil", ["E-government in Brazil"], elaborated by the General Office for Fiscal Subjects of the National Bank of Economic and Social Development - BNDES (www.bndes.org.br)

services through the Internet and the incentive to the *e-Commerce*, besides the improvement of tax collection.

It competes, however, to the rulers a much more comprehensive role in the adoption of public policies based on correct diagnoses to amplify, through financing and official fomentation, the magnitude of the process of technological transformation under way. The investment in telecommunications and computer science has been the main point of public policies adopted by advanced nations stimulating its companies and its own market, in the sense of strengthening their economy overall. It provide, among other competitive advantages, the increase of the productivity; the efficiency in the allocation of resources for the markets and the spread of knowledge for the whole population. One of the paradigms of that policy is Japan and, recently, South Korea, that looked for the bias on education to perform a gigantic leap towards digital future.

In the vision of those countries, ICTs are not a mere tool. They are mechanisms of a larger revolution, that takes place not vertically, but with the horizontalization of the Internet, especially for the aggregation of certain technologies to the daily life of the globalized citizen.[9] In fact, the issue is not just the access to the terminal, but the professional training and the endowment of a basic toolkit that turns possible the process of transformation of the preexistent models, in a continuous adaptation between needs and realities. In the essence of the debate, the isssue of citizenship should serve as an axis of the actions, turned, above all, to the universalization of the means and the spread of knowledge.

FREE SOFTWARE

That democratizing and, at the same, individualizing perception of knowledge is what drives one of the possible ways out of technological dominance by the developed nations: the incentive to the growth of the *free software*, a system that provides the execution, copy, distribution, modification and improvement of programs. While the

[9] QUÉAU, Philippe. “A revolução da informação: em busca do bem comum,” article published in CI. Inf., Brasília, v.27, n.2, p. 198-205, May/Aug. 1998

conceptual formats and subjects of the situation related to the nonproprietary *softwares* are still being discussed, the "rich" countries are still served of ICT for the full exercise and even increase of its economical hegemony.

More than that, the centralization of the computer science market, controlled by very few multinational companies, follows the model of cultural dominance characterized by the massification of the culture of developed nations, to the detriment of local identity. According to Castells,[10] its proved that 78% percent of the accessible sites in the worldwide net of computers is available exclusively in English. In other words, not just the access, but also the nature of the virtual content is something that comes up preoccupying.

It is natural, under the logical aspect, the existence of such a *digital monopoly*, because the world net is nothing else than the virtual reflex of the power of certain economical nations. It leaps to the eyes the current hegemony that the United States exercises upon the world, that shows itself in other countless fronts, such as the military. A result of the amazing investments that the North Americans are doing, systematically, in science and in advanced technology.

For the settlement of a global *cyberculture*, more plural and democratic, it is necessary that another net, not digital, be made, that is the financing chain of technological development and the spread of communication mídia. In advanced countries, the governments look for, among with research centers, universities and private companies, the necessary partnership for the fomentation of high-cost research, a result which is not so immediate. In Brazil, despite some exceptions, such as digital inclusion, the analysis is not very encouraging.

Among the limitations, there are: lack of objective sources of public financing; the rescheduling of the few available resources; lack of a perennial budget destination for digital inclusion in all levels of public power; reduced funding sources for social and non-governmental actions and the lack of conjugation and coordination of the countless existing programs. In general, when there are initiatives on course, they are relegated to a second plan; when there is budget, it is rescheduled; when there are partnerships, they lack scale for the production of representative results; when there are safe sources of resources, it

[10] CASTELLS, Manuel. “A Galáxia da Internet”, pp. 208-213

lacks decision or political will to use them. An example of that is the treatment received by Fust, by SCD and the some other inclusion programs, that will be mentioned below.

That hesitant and inertial model is a characteristic trace also of other developing nations. In the last three years, the country didn't waste more than 50% of the budget destined to projects of digital inclusion. And although the Union's Budget in the segment keeps ever growing, climbing from US$ 18 million to US$ 144 million from 2003 to 2005, the amounts really spent have been frustrating.[11]

PERFORMANCE OF INTERNATIONAL ORGANISMS

Fomentation agencies and international social organisms don't avoid to play their role, as the United Nations Development Program - UNDP Nowadays, the World Bank[12] finances seven infoinclusion programs and IADB[13] also maintains actions in the same sense. But, in the scope of the nations, only the governments have the necessary size to shorten the hiatus of time that ICT in general will need to reach the population as a whole.

In Brazil, there's a paradoxical situation, that shows, on one side, the slowness of the State, and, on the other hand, the urgency that the situation requires in the search for information technologies. National Treasury counts with a fund containing more than US$ 1.437 billion[14] to be employed in the universalization of telephony and of informatics; however, less than 50% of the Brazilian schools have computers.

In the last ten years, the Country attended a dramatic growth of its phone plant, that jumped about 14 million telephones, among fixed,

[11] Análise realizada com base no Relatório de Execução Orçamentária da Câmara dos Deputados.

[12] www.worldbank.org

[13] http://www.iadb.org

[14] Study “Os recursos do Fust servem para quê?”, de Vilson Vedana, da Consultoria Legislativa da Câmara dos Deputados, available at http://intranet2.camara.gov.br/internet/publicacoes/estnottec/tema4

mobiles and public lines, for more than 100 million presently.[15] That performance was due to the privatization of the section of telecommunications that, starting from 1998, injected in the economy investments as high as US$ 40 billion in assets and licenses, and about US$ 40 billion in the expansion and modernization of the plants[16], applied by the new operators that assumed the functions of the former state-owned companies.

However, nowadays, the cost of the telecommunications for the end user is an obstacle not just for Internet access, but to telephone itself. More than ten million telephone lines are idle, not for lack of demand, but capacity of payment of the poorest classes, which migrated for the mobile telephony. In seven years, the prepaid mode jumped from 5 million cell phones in 1997 to 70 million now, almost thirteen times as much.[17]

As a consequence of that situation, it is observed that Brazil possesses a double challenge to insert itself in the *Knowledge Society*. One is the promotion of the access to the telephony and the other to the Internet. In the root of the problem, are the high cost of the monthly subscription fee; pulses cost's; broadband fees; and the high tax burden on the sector of telecommunications.

OFFICIAL SOURCES OF FINANCING FOR DIGITAL INCLUSION

On the other hand, the Brazilian model of telephony, that proved economically inaccessible for many, presents their own instruments for the so called services universalization. The General Law of Telecomunications[18] established mechanisms of self-financing the demand, by creating a fund made up by 1% of incumbment's gross revenues, for investment in the universalization of ICTs.

[15] "Exclusão digital: um problema tecnológico ou social?", de Elisabeth Gomes, published in Instituto de Estudos do Trabalho e Sociedade, Rio de Janeiro: Trabalho e Sociedade – ano 2 – nº especial – december 2002

[16] source: Banco Central do Brasil (www.bcb.gov.br)

[17] www.anatel.gov.br and www.teleco.com.br

[18] Act 9.472, 16 july 1997

Fund's amount, formally known as Fund for Universalization of Telecomunication Services,[19] would be enough to supply great part of the demand. Since 2001, when it was established, the fund has already accumulated US$ 1.437 billion.[20] A resource good enough to redistribute the phone plant and to bring computing into brazilian public schools, but that today remains locked in the public money-box, with the purpose of increasing country's primary cash-flow.

In opposition to Fund's strength, truth is that ICTs didn't arrive strongly at least to the public schools, whilst they are an indispensable tool of learning. According to the School Census of MEC 2001, the students' percentage with access to a Computer Science laboratory at school is of only 23,9%.[21] In other words, the vast majority is out of the digital world. Besides, report of Unesco atests that, in Brazil, more than half of the teachers don't have a computer at home.[22]

PANORAMA OF INFOEXCLUSION

The exclusiveness of the main digital tool of the modern world for an elite is one of the main dilemmas of Brazilian society. Although the internet users' number shows a dramatic growth in the last years, the vast majority of the brazilian population is excluded from the Internet. According to a research by PNAD/IBGE, accomplished in 2002, 10,3% of the Brazilian population accessed Internet,[23] what corresponds approximately to 18 million people.

Concerning the income profile of brazilian internet users, the same research demonstrates that, in November 2001, 90,7% of them belonged to class A and B, that represent 24% of the population.[24] Those

[19] Act 9.998, 17 august 2000

[20] "Os recursos do Fust servem pra quê?" ["What are the resources of Fust for?"], by Vilson Vedana, from the Legislative Consultancy of the House of Representatives, available at http://intranet2.camara.gov.br/internet/publicacoes/estnottec/tema4

[21] www.ibge.gov.br

[22] http://www.unesco.org.br/noticias/releases/prof_brasileiros/mostra_documento, according to data research sponsored by Unesco in 2004, in partnership with Ministry of Education, National Institute of Studies and Education Researches - INEP, Institute Paulo Montenegro and Editora Moderna.

[23] http://www.universia.com.br/materia.jsp?materia=4719.

[24] Fonte: Media Metrix (2000).

figures show that the access to ICT is real practically only to the most favored classes of the brazilian society. Hence, 71,4% of households with monthly income above 20 minimum wages possess a microcomputer with Internet access, while only 5,1% of the others with income of up to 10 minimum wages have the same facility.[25]

Those figures are the most exact proof of an existing direct relationship between access barriers to technology and social exclusion. The poorer, obviously, the smaller the possibility of apprehension of the new technologies, that switch ICTs from the role of potential "liberators" for the role of a reinforceing element of social segregation. This logic affects, indiscriminately, citizens, companies and nations.

In the brazilian case, the social inequality, with country's brutal concentration of income, exacerbates the problem. Population's low revenues is the main impediment to the infoinclusion. According to a research by IBGE, accomplished last year,[26] in Brazil, only 4,1% of the population earns more than 10 minimum wages a month, equivalent today to US$ 1.200.

As a direct consequence, the Country keeps away from the opportunity of finding a privileged place on international scenario. In the world ranking of the nations more inserted in the *Information Society*,[27] elaborated by ITU, based on the criteria of infrastructure, consumption capacity, education and Internet access, Brazil ranks 65th, and 15th in America. The list of the Index of Digital Access is headed by Sweden.

To change that reality, the regulating agency for the sector of telecommunications - Anatel[28] - developed the project of a so called Digital Communications Service, aiming to equip and to connect to the Internet 260 thousand public schools, besides hospitals, health centers and other units of rendered public services. However, the resources, that would be originated from Fust, are locked. As the government itself admits, its application is only a finantial aid to balance the accounts of National Treasury and to accomplish fiscal goals before international creditors. Meanwhile, the government discusses other proposals for use of FUST resources, as decentralized spending by states and municipal

[25] www.teleco.com.br
[26] Fonte: PNAD/IBGE, 2003
[27] http://www.teleco.com.br/uitdai.asp, com dados da UIT
[28] www.anatel.gov.br

authorities, and promises for this year a definitive solution for the deadlock.

MODEL OF INFOINCLUSION

In the gap left by the absence of a solid public policy for the sector, non government initiatives of infoinclusion bloom. The experience of the *telecentros* is shown as a valid action, although paliative, to turn available the access to the web and to combat the digital illiteracy, leaving the idea that the computer in the modern society is a gender of first need, and not a luxury article of restricted access.

Due to the existence of the countless *telecentros*, some of them public and other chartered, fruit of the action of nongovernmental organizations and companies, it is inferred that, to install and to maintain a *telecentro*, it would be necessary to invest US$ 24 per inhabitant.[29] In absolute numbers, esteeming in 140 million the number of Brazilians excluded from the web, it would be demanded an investment of US$ 840 million in ICT goods plus another US$ 2,5 billion in training, to guarantee the diffusion and the use systematic, creative and adaptable of the new technologies to the local contents, in opposition to the monopolizing model.

However, the farthest the government signals are programs of medium reach, like *Casa Brazil* (Brazil House), executed by the National Institute of Information technology (ITI)[30] that provides the installation of a thousand multimedia *telecentros*, with a budget of US$ 81 million in 2005. Another program had as the star of public actions for infoinclusion is *Gesac,*[31] which provides 3.200 connection points (antennas VSAT and modems that allow high-speed Internet access through satellite) at schools, military units and telecenters, with an

[29] Data obtained from the calculation accomplished by BNDES for construction of a telecentro, based on information from the Coordination of Electronic Government.
http://federativo.bndes.gov.br/destaques/egov/egov_experiencias_brasil_gov_municipal_ecidadania.htm
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http://federativo.bndes.gov.br/destaques/egov/egov_experiencias_brasil_gov_municipal_ecidadania.htm

[30] www.iti.gov.br

[31] www.idbrasil.gov.br

average of seven computers on each point. The investment made up to now was of US$ 31 million. *PC Conectado* (Connected PC) is another program to come up, with the purpose of offering personal computers at low interest rates, in order to stimulate the sales for class C and D.

DIGITAL INCLUSION AS SOCIAL RESPONSIBILITY OF THE PRIVATE SECTOR

From the abyss built for sociopolitical reasons, relatively shy answers arise from companies that work also under the perspective of promoting common good, the so called social conciousness. As a whole, the ten larger Brazil-based companies invested, in the last two years, approximately US$ 40 million[32] in social actions with ITC, being the main ones, in order: Petrobrás, Telemar, Companhia Vale do Rio Doce, Furnas, and Telefônica. Naturally, allthough these wellcome resources are absolutely incipient, given the dimensions of the problem.

A larger engagement was expected, also, in social actions from the brazilian ICT industry. However, the sector itself equally lacks programs that make possible exploring all of its own potential. With an annual revenue of US$ 39 billion[33], largely concentrated in the area of telecommunications and with a software trade balance unfavorable to the country (Brazil exports less software than India and Ireland, for instance), the sector doesn't have an effective and continuous industrial policy. One of the governmental actions, named Industrial, Technological and Foreign Trade Policy (in portuguese PITCE), in practice bore no results after one year since its creation, although it has been focused in only four knowledge areas: semiconductors, software, capital goods and farmaceutical.[34]

That conjuncture places the country in the 46th rank, concerning the *Index of Readiness for the Networked Society*, as reported in the ranking of the *Global Report for the Information*

[32] Data obtained starting from the consultation to the budget of the companies, available in their official sites

[33] Considered only the 10 biggest companies on each sector, from Ranking da Informática Exame, set. 2004. Available at: http://info.abril.com.br/info200/2004/200-1.shl

[34] http://www.mct.gov.br/Temas/info/pni/pni.htm

Technology, [35] elaborated at the World Economical Forum, in 2005. On the other hand, it is also observed the strong presence of foreign capital in the sector, especially telecommunications, that presents better robustness. With a plant of 39 million fixed telephones and 70 million mobile lines,[36] the sector of telecommunications responds for seven out of ten larger ITC companies in Brazil. Among the ten, nine of them are foreign companies.

TAX POLICY

The formulae to lever development and growth of the ICT segment, that responds for only 2,5% of brazilian GDP,[37] were already suggested by sector's representative entities. Among them, there are: specific tax policy incentives; lower interest rates; enlargement of the access to credit; exoneration of the exports; and tax downpayment reduction for expenses with production related goods. The software industry, for instance, collects almost 20% of its revenue only with the Tax on Circulation of Goods and Services (ICMS). In the segment of telecommunications, the tax burden is also perverse, arriving upto 40%.[38]

The vigour of the public tax collecting apparatus ends up, in certain measure, neutralizing meritorious actions in the sense of injecting resources in such vital area. Even though the absence of an effective industrial national policy, or of a scientific and technological development one, the country already tried some actions tuned to increase investment in ITC, being the *Informatics Act* (*Lei da Informática*, 1991) one of the most evident initiatives. Through it, the *Revenues Tax* for companies that invested in sector's growth was reduced, and informatics and telecommunications products that follow the criteria of the so-called

[35] Global report of IT of the World Economical Forum http://www.weforum.org/site/homepublic.nsf/Content/Global+Competitiveness+Programme%5CGlobal+Information+Technology+Report

[36] www.anatel.gov.br and www.teleco.com.br

[37] http://www.mct.gov.br/Temas/info/pni/pni.htm

[38] Taxation on Telecommunications, Medeiros Netto and Luiz Antônio Sousa da Eira Câmara dos Deputados, 2002 (http://www2.camara.gov.br/publicacoes/estnottec/tema20)

Basic Productive Process (PPB)[39] were exempted from the Tax on Industrialized Products (IPI).

As a result, IT sector grew 30% from 1995 to 2001 and produced more of US$ 10 billion in wealth. [40] The Act also imposed, in order to profit from its incentives, the obligation of investing at least 5% of companies revenue in R&D (Research & Development) on ICT. That compensation policy injected R$ 2,4 billion (approximately US$ 1 billion) in the sector from 1993 to 1999, according to data of the Ministry of the Science and Tecnology.[41]

In addition to the Informatics Act, a complementary act of 2001, created more tax benefits, aiming also to combat the regional unbalance in R&D in the IT area. Starting in 1999, another mechanism was introduced to encourage the segment, with the creation of sectorial funds. This new funds recieve part of companies' revenue for the application on each specific area for which the resources are destined for: transports; telecommunications; space; health, agribusiness; biotechnology, aeronautics and informatics, among others.

In spite of all efforts undertaken, included the market closure of informatics,[42] technology advances did not come as desired.[43] Ranking in the 7th place in world's software market, with an annual growth rate of 11%, the sector still finds enormous potential to develop but its impact in the society is still small.

According to the report presented in 2004 by UNDP[44], Brazil ranks 72nd and at the 14th place in Latin America concerning the technological Human Development Index - HDI.

THE COMMITMENT OF THE LEGISLATIVE

[39] At least a portion of the product being manufactured locally.
[40] research ordered by Microsoft, in 2001, to the International Data Corporation IDC -, according to available information in the site http://www.microsoft.com/brasil/pr/2002/lideres.htm
[41] www.mct.gov.br
[42] the National Policy of Informatics, with market closure to informatics goods was in force from 1984 to 1991.
[43] Ministry of Foreign Relations – Brazil (http://www.mre.gov.br/cdbrasil/itamaraty/web/port/economia/industri/polinfo/apresent.htm)
[44] "Report on Human Development 2004 - Cultural Freedom in a Diversified World", United Nations Development Program (UNDP), 2004. p 136. ISBN 972-8730-18-7.

Even when it's focused merely the economical aspects of accessibility to the digital resources and the technological innovations, one cannot ignore that the genesis of the point is, in essence, cultural. It is all about, and that is the preponderant factor to justify the engagement of the world parliaments, a change in paradigm, within a wider general perception. The theme of the digital inclusion is not an appendix in the whole cast of state "aids" to be rendered to the population, but a strategy of sustainable development for medium and long term, as an indispensable road for the "social revolution", an appealing term in the jargon of promises made by the rulers of the emerging countries.

The legislatives, privileged forums of the debate of those structural subjects, are an important part in the process of cultural transformation, that, its hoped, should have the frenzied speed with that the technological world presents its innovations.

In the brazilian Parliament, the Parliamentary Fronts of Informatics; of Free Software and for the Promotion of Knowledge and of National Technology work for the fast voting of bills that foment the development of ICT in Brazil. The legislative procedure has today over 30 propositions that discuss the subject, ranging from the pertinent concern of improving the regulatory framework, to the enlargement of programs of social inclusion, passing through the regulation of controversial themes, such as *cybercrimes* and *spam*.

UNEXPLORED POTENTIAL

In spite of the magnitude of the challenges, the scenario that is drawn ahead is not exactly somber, due to the potentiality of the current context. In the brazilian case, the vitality and the continental proportions of a market still not served demonstrate the latency with which the theme pulses. An example is *e-Commerce*, pointed, in study of the University of Harvard, in the United States, as a sector of high development in Brazil, having generated revenues of approximately US$

2,1 billion in 2001.[45] Electronic deals ranked the country on the 18th place among the 75 nations that do business in the electronically. In the new economy, brazilian companies are still in the beginning of the process, and that projects a promising future.

Although 95% of the medium and large size business have Internet pages, it is considered that only 5% of them offer purchase opportunities and sale over the net.[46] According to data from Market Analysis Brazil,[47] the on-line number of consumers is not more than 5% of the Internet users.

THE ACCESS TO ITC AS A RIGHT OF THE CITIZEN

When defending universalization of the "digital equality" principle, the Parliaments gathered at international forums such as IPAIT are convinced that the evolution of ICT leaves no choice: there is no possible development without digital education. Otherwise, whole nations will be overwhelmed by the energy and the unpredictability of an industry that is reinvented every day and breaks universal barriers on behalf of a frenzied and instantaneous global communication.

However, in case it is not the humanitarian sphere that touches the policy makers around the world, let the subject be endorsed under the economical argument: infoinclusion is more than a need in order to avoid a world convulsion of unexpected consequences. It is an investment, of guaranteed return, in the future of the human species.

In the microcosm, Brazil is an interesting example of how workforce, creativity, rationality and communion of efforts can result in effective and lasting solutions, as is the case of projects like the computerizing, by donation of used and discarded computers, of schools and community centers in slums; indigenous villages; units of attention to smallest offenders and in the neighborhoods of the periphery of the great cities.

[45] Grupo Telefônica,"A Sociedade da Informação - Presente e Perspectivas",[Information Society - Present and Perspectives] p.120. 2002. ISBN: 85-89385-01-9. Fonte: Universidade de Harvard, 2001.
[46] Grupo Telefônica,"A Sociedade da Informação - Presente e Perspectivas", [Information Society - Present and Perspectives p.64.] 2002. ISBN: 85-89385-01-9.
[47] Socinfo Telefônica, p. 122

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In conclusion, there are four interdependent factors that should be considered in a national policy of infoinclusion: the infrastructure support and its low cost access; training for the use of ICT; administration and economical-financial sustainability of the official and non-governmental programs and the incentive to the offering of local contents, through hypermedia/multimedia applications.[48]

STATE POLICIES FOR INFOINCLUSION

If the issue is not technology development, but the asymmetrical form as it is controlled over the planet, one of the possible solution is to adopt ideas such as the creation of the *Digital Solidarity Fund*. The proposal was lifted up by Senegal, demonstrating that the peripheral nations are not resigned with the bad distribution of the digital economy.

Although it can hit the essence of free market economy, that looks for the minimization of costs and the concentration of wealth, the solidary idea of technological distribution fully matches the logic of those who pursue, by itself, the maintenance of a social, political and cultural ecosystem, bearable and maintainer of survival in harmony and peace in the planet.

In local terms, the official speech is not enough to transform, indeed, technological researches into social development. It is necessary that the governments establish guidelines that make economic growth with a social vision compatible, based on the use of ITC, what,

[48] Study “E-governo no Brasil”, [E-government in Brazil], elaborated by the General Office for Fiscal Subjects of the National Bank of Economic and Social Development – BNDES (www.bndes.org.br)

unfortunately, has not been verified in recent public policies adopted in Brazil. And that decision doesn't depend on words, but on concrete and growing investments, capable to run with energy the complex economical gear in a way that human intelligence and its brilliant inventions turns into goods on the service of all.