

Information Society, Knowledge society

Controlling and benefitting from change

Collective proposals paper

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Introduction

As early as 1995, on the occasion of the G7 summit, a group of actors, researchers, politicians and activists - gathered together by the " Charles Léopold Mayer Foundation - FPH" and the "Transversales Sciences Culture" review – detected the ambiguity of enthusiasm demonstrated by the heads of state then meeting at Brussels. The bubble of the "new economy" had not yet had the time to bloat and burst, though the risks of a purely commercial approach to ICTs were already being criticised and the persons and organisations mentioned above were considering and sketching out alternatives. They have continued their reflection and monitoring since then, in collaboration with many others in organisations, virtual communities and networks in different continents.

Now, in 2001, after carrying out a long process of formulating proposals and research into collective forms of action via the international network known as the "Alliance for a responsible, plural and united world", the Charles Léopold Mayer Foundation wishes to contribute to the future of an increasingly complex world.

2001 is therefore the occasion to take stock and cross-check the work done by the "alliance" and that continued by these different networks:

What has occurred over the last six years in the fields of information technologies and their interactions with society?

What of the risks denounced and the hopes raised six years ago?

What actors from the different continents can contribute innovative experiences regarding alternative policies?

What proposals can we formulate today so that ICTs become vectors of a more united, civic-minded, cooperative and creative world?

These are the far-reaching questions that this collective proposals booklet attempts to answer after having examined them in parallel in different continents. Though modest these answers are nonetheless invitations to broaden our imaginations and continue our action. Rather than seeking a synthesis between three regional workshops, in North America, Africa and Europe, we have preferred to conserve the particularities and specific natures of each of them.

The reasons behind this decision are that the economic, social and cultural dimensions of each of these regions are so specific to them and that the problems related to the social control of these knowledge based technologies are so varied that it is impossible to formulate a valid synthesis. Contrary to radio, television, mobile phones and other electronics dependent mass diffusion technologies, signal processing needing electricity, the impact of the Internet is not immediate. Access to it is expensive and requires personal investment in terms of equipment and training. The opportunistic and fortuitous result of the combination of the personal computer and network software, it is currently poorly adapted to general use due its complexity and sometimes deceptive reliability. These characteristics mean that its use by society greatly depends on the societal environment in which it is intended to operate.

In Africa the economic environment is one of poverty, health concerns caused by AIDS and malaria, political instability in many countries, and illiteracy that sometimes reaches 80% of the population: thus debates on the use of the Internet occur against a backdrop where only 0.4 % of the population use it. However, in these countries that frequently lack water and access to electricity, ICTs are seen to be an oasis in a desert and the participants of the Bamako 2000 Conference were aware of its remarkable potential. As one African said, "in the 15th century, Africa was left by the wayside of navigation and weapons technologies and suffered slavery. In the 19th century, it was left by the wayside of industrial technologies and suffered colonisation. Today, we cannot miss out on participating in the knowledge society". Thus the debates mainly dealt with infrastructural problems and serious imbalances of access between the North and the South, the unbalanced and unstable political context, the absence of adapted public structures and organisation capable of regulating and promoting utilisation, the need for applications specifically designed for this environment. These concerns are all linked to the three priorities clearly announced by the President of Mali, Omar Konaré, at Bamako, i.e. medical care, education and democratisation.

As can be imagined, the situation is completely the opposite in North America and Canada. Society in these countries is rich, with 50% of their inhabitants being connected. Seen otherwise, 50% are not

connected and 25% of them are almost illiterate. It is a society in which personal initiative reigns, but so does piracy, unwanted advertising (spam) and means of finding loopholes in the law or laws. An example of this is Napster, a Web site which permits copying music without paying any copyright. A society of contrasts in which business rules, but where at the same time NGOs and other organisations generate a vast array of different initiatives ranging from apolitical utopianism to the most active pragmatism in a vigorous and imaginative public and economic environment, but it also has many divides. "ICTs have invaded the furthest corners of public and private life and are remodelling a new collective consciousness".¹ Thus most concerns are involved with integrating these individual initiatives in public life. More government for public financing of local community initiatives. More participation of these organisations in defining policies of public and community uses. More efforts for training, education in favour of access to knowledge and innovation for the most disadvantaged of all kinds.

In Europe, the new knowledge society is in the process of construction. As with political and economic union, it is forging its future and seeking within itself. 25% of the population is connected, along with 4 million users of telematics systems in France, but its divides and contrasts are of different types. They are characterised by diversity, the European keyword. A diversity of languages and cultures, ranging from Scandinavian, Anglo-Saxon and Mediterranean, not forgetting Eastern European. The proportion of Fins using the Internet is higher than that in North America, though the Greeks and Portuguese are far less dynamic. A Europe that demands much from its social services, or services in the general interest as they are now called. In particular they concern public responsibilities regarding long term investments in general access to networks, not only technical but human too. These investments are only profitable in the very long term like those in road transport, shipping and power plants. The debate in Europe on the social control of ICTs also covers in a very significant way the need for democratic renewal and the powerful impetus that ICTs can play in this respect.

Therefore, after in-depth consideration, rather than seeking to formulate a synthesis between the three regional workshops of North America, Africa and Europe, which we feel would be artificial, we have conserved the particularities and specific characteristics of each of them, leaving the reader to link up the common points that exist between them, for example, on the rights of the individual, world governance of the Internet and the regulation of taxes on telecommunications, and the digital protection of humankind's scientific and cultural heritage by UNESCO.

Thus you will find the proposals formulated by these three workshops in three distinct chapters. Obviously, they are underpinned by the fruit of the experience of the authors and participants. The analysis of these fruits and specific regional situations that have generated these propositions is set out in a "dossier for debate" to be published by the Editions Charles Léopold Mayer. Readers interested in the experiences, analyses and contributions to the different forums used as the sources of this proposals booklet can refer to the dossier for further information.

VP and AH 30/05/2001

¹ - cf the text by Alain Ambrosi in this document.

Contents of the “ dossier for debate ”

This summary of texts that have appeared or will appear in the form of a "dossier for debate", clarify the specific approaches of the three regional workshops. The latter were held as a function of different timetables and periods.

The European approach is characterised by consideration that has continued over several years, in fact since 1996 to the present. The wealth of experience began with the founding of Vecam and then of the European E@acn and continues.

The African workshop is the result of the Aftidev forum of 2000 and a meeting held at Bamako, also in 2000, organised by the Anais network that was set up following a conference in Geneva in 1996 on the control of ICTs to the benefit of sustainable development in Africa.

The work done on the North American continent is the result of a synthesis carried out by Alain Ambrosi, who, over the years, has amassed great knowledge of the social uses of all types of electronic technologies, whether they be audio-visual, computers or telecommunications.

Lastly, the appendices to this document include a text on the "Fruits of Mistica", the experience of a virtual community in Latin America and the Caribbean related to the social impact of ICTs.

I - E@CN: The European approach

1/ Beatification and demonisation, the end of naivety: opportunities, risks and ambiguities of ICTs.

ICTs and the evolution of our societies

Technology and society: a cyclic process
Inequalities and changing societies
Interpersonal relational exchanges

ICTs in the public arena

Ict and governance: new distributions of roles between the state, local authorities, the private sector and the civic and social sector
Administrations and the administered, the elected representative and the citizen
Civic movements and social transformation
The role of the media

ICTs in our production methods

The world of work, employment, finance and money

2/ Directions of action for the social control of ICTs

ICTs, governance and new partnerships

The digital divide: changing the prism
Obligations for a service in the general interest
The need for international regulation of communication that recognises the role played by community media in the general interest
The reassertion of education and training as an integral part of public service
The creation of alternative and associative public supply related to e-learning
Training in "information ecology"
Knowledge communities
Domain names: public property, service in the general interest and taxation
Tax on the flow of information of large corporations
Moratorium on taxation on computers in the countries of the south and preferential rates for participation in local economies.

ICTs and pollution: for an integrated approach

ICTs: access to training and participation

Access is indissociable from training and participation

Multiplying public access points

Public access points are the result of a wide partnership

Community and associative premises (or telecentres), privileged points of access that should be given recognition

The quality of services for all

Broadband, a new challenge for a universal service

Setting up infrastructures: the need for public authorities take on their responsibilities

Making the process of privatisation and awarding contracts transparent while associating the civic and social sector

The distribution of PCs at low prices for low wage earners

Giving computers to the countries of the south: no technology transfer without transfer of competency

ICTs and representative democracy

Obligation of placing public legislature on-line systematically in an organised way before and after its adoption

Setting up electronic counters giving access to the administration

More accessible and interactive elected representatives

Prohibition throughout Europe of on-line voting

Setting up on-line voting throughout Europe

Training the employees of local and public administrations

Internal democracy in all intermediate bodies

ICTs and civic and social innovation

Using and diffusing pioneering experiences related to community and social uses of ICTs

Tools in the service of participatory democracy

Using the Internet as a means of pooling the proposals made by civil society and making them coherent

Formulating indicators of the social impact of ICTs by players in the civic and social sector

Setting up an observatory of ICT related policies and uses and an interface between the players in the civic and social sector

The creation of virtual social currency

The prohibition of alternative on-line currencies

New areas and new forms of combat for the unions

The economy in network: long term questions on the usefulness of unionism

Creating an interface between the civic and social players of ICTs, public research and development and engineers

The promotion of tools adapted to different cultures, especially using speech and taking into account illiteracy

Links between community media

Multiplying invitations to launch projects, a lever for innovation

ICTs, the Law and public freedom

Limiting the national and international responsibility of site hosters

- Authorisation of encryption, a framework and limit for connection data and regulations for advertising

Protecting and extending union freedom and rights on the Internet

Guaranteeing decent working conditions and prohibiting practices harmful to employees' rights

Updating the People's Communication Charter and its adoption internationally

II THE TRANSFER AND SOCIAL CONTROL OF ICTs IN AFRICA: THE CURRENT SITUATION AND PROPOSALS FOR ACTION

Transfer and social control of ICTs in Africa
The current situation and proposals for action

1. Obstacles to the social appropriation of ICTs in Africa

Structural obstacles

Dependencies related to telecommunications infrastructures: faults, deregulation, tariff policies

Difficulties related to culture and training

Contents of applications

Regulations and governance: the lack of adequate national plans, lack of regulation, problems specific to the governance of the Internet

2. Social control of ICT's in Africa: a view of several experiences with access systems

Access infrastructures for implementing the African satellite RASCOM

Access by radio in an Oridev "P@ge"

Shared access with H2COM – Favomail – a free email service in Togo

3. Training to use computer and telecommunications technologies

Remote training for medical applications – FORST

Training by videoconference systems

4. Applications for appropriate economic and social development

The Popular Urban Information System – SUIP

Togolese villages on the Internet

Monitoring the prices of raw materials on the world market

"Noël Y2K", an experiment with e.commerce in Lomé

5. The regulation and governance of the internet; African specificities

Towards setting up a regulation body: Afrinic

Setting up national ICT development plans

Setting up an association of telecommunication regulators in West Africa

6. The problems of using ICTs

"A panacea for development?"

The local context

Project evaluation criteria

The snags of co-operation

7. Several strategic proposals

Basic principles: the integration of ICTs in development programmes and taking into account by co-operation of the continent's traditional problems:

Proposal No. 1: set up a plan to use international solidarity to develop African telecommunications infrastructures;

Proposal No. 2: reinforce multimedia content development programmes with local African languages and form bridges between traditional media and the Internet;

Proposal No. 3: integrate Africa in the world governance of the Internet;

Proposal No. 4: the development of community access;

Redefine the appropriate international rules for distributing the costs of the Internet.

III Community initiatives and proposals for the appropriation of ICTs in North America

1. Portrait of a "connected" society:

North American households are the most connected in the world.
The phenomenon of "Napsterisation"
A few reasons to sing less loudly: numerous gaps
Looking for a second wind

2. Government policies

The legal and regulatory framework
Government programs
The political-ideological context
Interaction with community groups

3. A panorama of initiatives from civil society

A portrait of community networks

From "Freenets" to Community networks"
Community networks and technological resource centres

Synergies within civil society

Urban networks and "ingenious cities"
Support groups, research groups and pressure groups

4. Proposals from community networks

Access to and participation in policies

A coherent and substantial public service policy
Permanent updating of the definitions of essential services based on the real needs of the population
Recognition and encouragement of the role played by community associations in democratising the information society
Greater co-ordination and integration of national programmes intended for the public and community associations
Substantial and sustainable finance for community initiatives
Public consultation mechanisms and the creation of monitoring committees
Cyberdemocracy and cybergovernance
The protection of personal information

Education and Training: access to and participation in knowledge

Setting up infrastructures

Access policies and programmes

Programmes intended for disadvantaged families
Programmes intended for public access points and community organisations

Training programmes

Technical training, lifetime training and training for citizenship
Training at variable and adapted levels

Creating contents

Access and participation in innovation

The capacity for societal innovation
The role of community networks
The challenges of community networks

Appendices

Appendix 1: the fruits of "Mistica": the experience of a virtual community in Latin America and the Caribbean related to the social impact of ICTs.

Appendix 2: Declarations from meetings of citizens involved in the Internet and ICTs
The Bamako Declaration, February 2000
The Papallacta manifesto, march 2000

Appendix 3: Global 2000: The birth of a global partnership of online community networks at Barcelona, November 2000.

Appendix 4: Dot force (digital observatory task force): contribution of the non-commercial French and French-speaking sector

Appendix 5: Bibliographic resources, links, references

Foreword

Since its foundation, VECAM² has sought to anticipate the social challenges brought about by the information era. This forward approach aims to warn against deviations while highlighting and encouraging the positive opportunities generated.

Information technologies constitute an essential tool in the profound changes affecting society taking place under our very eyes. Since they are technologies, they are at the core of the relationship between humanity, science and nature; because they convey information, they shake up our production systems, our interpersonal and collective relationships and our ways of thinking and remembering.

Beyond focusing on the information society, Vecam modestly attempts to give meaning to this transformation of society as a whole, a transformation that should permit, in our view, reducing inequalities in terms of economics and knowledge; rebuilding positive collective identities; forming a more balanced relationship between the individual, society and the environment; linking territories with their inhabitants; and inventing new forms of governance capable of dealing with the challenges of the millennium.

By giving priority to what were then still called “new technologies”, six years ago, VECAM's³ founders appeared as pioneers on the NGO scene in Europe and France in particular.

Today, the public arena has been invaded by these technologies and newspaper columns are full of them. So what is the use of continuing forward studies? What is their social function?

Some of the warnings made by the founders of what was soon to be called VECAM during the G7 summit of 1995 were founded, especially concerning the growth of inequality. The “digital divide” has even become a fashionable subject. Public and private players, including those that, five years ago, developed their products without a second thought, asserting that the market would eliminate this risk spontaneously, now use the subject in a sometimes perverse way as an alibi for the even greater expansion of pure mercantile logic. On the contrary, we assert without cease that that the divide does not only exist but that its roots lay in the appropriation of tools rather than technical access.

Six years later, we also see confirmed the upheavals foreseen at the time, and which endure, further widening the gap.

All this encourages us to continue our work of *monitoring*, especially in other sectors such as access to knowledge, the transformation of social relationships, the confidentiality of personal information, the evolution of public and general services, etc.

Besides this monitoring activity, we feel that *a task of reliance* between the transformations stemming from information technologies and more general social changes is lacking.

In terms of political imagination, there is insufficient dialogue between civic institutional players that consider the stakes involved in ICTs and other players in civil society and politics - associations, civil movements, political parties, local authorities, etc. – and their respective works could benefit from each other more fully. Among other things, this will permit the former to think more in phase with the reality of how uses change.

In terms of creating collective wealth, few companies, with the exception of some major groups in search of content, still do not grasp the importance of the innovations contributed by these civic actors. Better reciprocal understanding could lead to new partnerships around innovative experiences of using information technologies in view to aiding local development in particular.

Regarding technological innovation, there is no interaction between civic players and those who design the technology and software. There is a gulf between scientists, technological developers and social needs. Associations and artists can act as intermediaries in communicating genuine social

² VECAM - Reflection and action for the Internet citizen. Founded in April 1996, VECAM seeks to promote the social, democratic and cultural use of information technologies. It operates both as a think tank for forward studies and as a pressure group that assists players such as towns and organisations that develop non-commercial uses for the Internet.

³ The organisation sprang from a joint initiative of the Transversales Sciences Culture journal and the Charles Léopold Mayer Foundation.

expectations to public and private laboratories and thereby create technologies that are better adapted to the real needs of populations. This is a new, essential area of action. More generally, civic and social players have not been given the tools with, or the places from, which they can forge links with the designers of new technologies. It is abnormal that in Europe, only private companies are active and present in the forums where technological innovation programmes are discussed and oriented with scientists in the areas concerned.

Methodology

Many of the points discussed below are subject to controversy. We have not sought synthesis or consensus at any price but, on the contrary, attempted to highlight the great diversity of points of view collected on these subjects. The reader will note that some proposals clearly contradict each other. These “ethics of discussion” do not in any way prevent a clear vision of the society towards which we intend to progress or firm conviction vis-à-vis the adversaries we have to face – the disciples of the new economy and other believers of “economism” – on the road to social transformation. Most of the contributors to this work agree that the advent of ICTs constitutes a paradigmatic change: they have led to a real break in space-time and are not just another technological change.

Appropriating the Internet day by day and the multimedia activities in society enables observation but little definitive analysis. This text is therefore a report of the thoughts and opinions of several persons chosen because of their experience in implementing, observing and developing electronic networks. Furthermore, the text below is destined to play a “sacrificial” role. It has been written on the basis of the works, writings and comments of all the people mentioned in this document and we take this opportunity to thank them warmly. This approach would be meaningless if it were not the result of collective work.

Moreover, we emphasise the fact that this text is obviously limited to a European and rather French conception of the subjects treated. We have taken an “open Eurocentric” approach! We have not sought to occlude this prism; on the contrary, we have attempted to bring it into confrontation with other approaches equally impregnated with their own cultural backgrounds.

This text was enriched via a gradual process:
by internal diffusion within Vecam from June to October 2000,
by a workshop held at the same time as the meeting in Barcelona, the first world meeting of community networks⁴ at the beginning of November 2000,
by a French workshop in December 2000

Although this text is primarily the fruit of a French and European vision, it sometimes incorporates proposals resulting from exchanges with our partners in the South.

In particular, we have worked on the stakes of ICTs in the South during the work done by Dot Force, a tripartite entity created by the G8.

The syntheses of these three approaches are included in this document, permitting readers to grasp the wealth of cultural diversity emanating from the different continents from where the standpoints come. Fuller versions of these documents are on the sites concerned.

However, the European document, which is the backbone of this work, has incorporated proposals from the South. Where this is the case, they are indicated by an icon corresponding to their continent of origin.

This text will be published and widely diffused in civil networks, whether they privilege ICTs as a means of action or not, and also to actors in institutions and companies. An on-line version of this text leaves it open, making it a living document whose existence will be prolonged by new proposals (www.vecam.org/cahier-proposition.html).

⁴ www.cnglobal2000.org

Directions of action for the social control of ICTs

On the basis of the observations above, we propose a number of directions for action. Some are relatively simple to implement, whereas others are more principle oriented. Whatever the case, although they are necessarily incomplete, these proposals are as much an invitation to enter into debate as to take action.

A - ICTs, governance and new partnerships

A1 - The digital divide: changing the prism

Proposal

The question of the digital divide must:

Go beyond the issue of connectivity without neglecting it,

Be integrated in a world-wide vision and not simply in that of the "South", since it reproduces the former practices of assistance.

Be dealt with on a political level in which governments play a central role and not only on a commercial one. However positive the partnership between governments, companies and the non-commercial sector is, it should not be used to justify withdrawal from public services.

Take account of the initiatives and proposals from citizens' networks active in the information society, as with the "world partnership of citizens' networks".

The reasons

The number of authorities is currently increasing – the G8 DOT force, the UN Task Force, etc. All of them focus on the challenges of the digital divide. This approach raises several problems:

the dispersion of efforts between the different authorities;

concentration of consideration on connectivity, while ignoring questions of training and participation.

the ever-presence of the commercial approach to solve this question;

the reproduction of a traditional North-South view. The digital divide is an issue common to both North and South from the moment it is not dealt with simply in terms of connectivity. The countries of the South are just as creative in finding new uses as those of the North and there is a possibility of both hemispheres entering the information society simultaneously thereby changing the paradigm as we look on. This is the major opportunity we cannot allow to pass by, that of the end of the North aiding the South, with the latter finally able to aid the North.

NB: Cf. Appendix 4 on the challenge of the digital divide.

A2 - Obligations of service in the general interest

Proposal

Whereas there is no longer any monopoly in supplying access to the network, the issue of obligatory service in the public interest remains. Operators should provide universal access under billing conditions that allow every citizen access. Apart from a universal service, it entails providing access to missions in the general interest (see below). In addition, the contracts made with cable operators should include obligations to offer the connections necessary for the development of suppliers providing access to organisations (and communities) and citizens' portals, or else they should be obliged to pay part of the revenues to the development of these players.

The reasons

The harmful effects of monopolistic situations in access to networks have been proven (insufficient flows leading to overpricing for the consumer, etc.). Today, this situation no longer exists since all the monopolies have been dismantled, but sometimes to the detriment of public services previously ensured by public operators. In conformity with the Amsterdam Treaty, private operators are subject to the obligations of public service, especially regarding access to the network. This is the indispensable condition for ensuring that as few people are excluded from access as possible. If supplying access is considered as a public obligation, it will have an impact on investment and infrastructure and billing policy for the private investors that they must take into account when bidding for a foothold in new markets (e.g., local radio networks). The auctioning in the United Kingdom and Germany, for example,

for third generation mobile phone licenses does not clearly answer this concern since the enormous price will be passed on to the unit cost of mobile telephones and therefore the consumer. Although this appears to be a lesser evil in the case of mobile phones, since analogue technology remains, the same is not true for the Internet where the risk of exclusion is more obvious.

The Canadian law of 1991 on radio broadcasting could be a source of inspiration for the development of a non-commercial Internet service. This law, which governs the "Canadian radio broadcasting system", expressly states that it is "composed of public, private and community elements"⁵ (article 3-1-b). It obliges the cable operator to distribute not only community television channels but to invest from 2.5 to 5% of its net profits into such operations. Unfortunately, the law of 1998 overturned this system, emptying the previous law of its substance, thus making it inoperable in practice, whereas it should have been extended to the new media. Nonetheless, it remains a strong basis of inspiration.

The Italian government levied X% of the revenue generated from the tenders for UMTS licenses paid to it as part of the "e-government" action plan for local authorities, actors in the non-commercial social sector and community networks active in combating the digital divide.

<http://www.governo.it/fsi/>

A3 - The need for international regulation on communication that recognises the role played by community media the general interest

Proposal:

The community media sector must be recognised at international level as an essential public service and as a vital element of pluralism and democratic life, as much as that of economic and social life. This sector must be considered as a fully fledged player in the "radio-TV-Web diffusion" system at national and international level, and policies in this area must provide for giving them the resources and finance sufficient for their continuing existence.

The reasons

Whereas the media sector has become the battleground for the largest movements of capital of our time, thereby participating in the general commercialisation of information and culture, it is vital to preserve a non-commercial dimension in which information does not necessarily rhyme with profitability.

A4 - The reassertion of education and training as an integral part of public service

Proposal:

The principle of a public education and training service must be reasserted at every stage of child and adult education, the latter being of particular importance in the information society. It must be integrated in the constitutive principles of the European Union, as an integral part of our social model must not be called into question by multilateral negotiations, such as those of the WTO.

The reasons:

Although the initial experiences of distance education have not raised problems of user-friendliness, contrary to certain prophecies, the real danger comes from its commercialisation. In France, a symptom of this has come to light with the application for the domain "education.com" (without any government involvement) by Vivendi-Universal, which launched a vast portal of educational products in just a few months. Education has now become a choice morsel of the all-private economy. Taking advantage of the development of new forms of information technology related teaching, especially e-learning, they intend to submit this activity to competition by creating the content to be taught and the choice of teacher. Thus they call into question among other things, the function of social integration which is one of the fundamental functions of schools, the very places where equality can be put into practice and where citizenship is built.

A5 - Setting up a public and collective counter-offer for e-learning

⁵ The word "communautaire" in Québec French can be translated into English by "non-profit-making", "associative" or belonging to the civic and social sector.

Proposal:

The state should invest in the creation of tools, researchers, teachers and trainers specialised in e-learning.

These investments should encourage the emergence of new places for creating knowledge. Development programmes can incorporate a section of research into educational sciences that associate researchers and teachers from the North and the South, in order to encourage the development of tools adapted to the cultural diversity and poor educational facilities of certain countries in the South.

The reasons:

Rather than dwelling on the progressive drift of education towards the commercial sector due to the impact of information technologies in teaching practices, a public counter-offer must be made in every area of e-learning.

In parallel, public authorities should accept and recognise the appearance of new places of diffusion (e.g., telecentres) and the formulation of knowledge provided by, among others, citizens' networks (e.g., knowledge exchange networks, knowledge trees in France and Europe, knowledge communities in the USA, etc.). This counter supply is of particular importance in the countries of the South, where e-learning can in time be a means of making schooling genuinely general and obligatory, with a supply of quality. It must also avoid the possibility of students from the South all becoming users of e-learning purveyed by American and other Western universities due to the lack of local facilities of quality, which would lead to cultural uniformisation.

A6 - Training in "information ecology "

Proposal

The school curriculum should incorporate training the learner in information ecology, i.e. equip it with cognitive tools permitting it to be both a consumer and an enlightened player in networks.

The reasons:

How is it possible to protect the freedom of the consumer and the freedom of his/her freedom as a citizen on the Net? How can one avoid being filed? How can one avoid being the target of aggressive advertising against one's will? How can advertising information be distinguished from disinterested information? What are the rules of "Netiquette" that permit mutual respect on the Net? How can the propagation of false information be avoided (e.g., chains, false viruses, etc.)? All these questions and answers should be subject to systematic training at the same time as learning to use the tools.

A7 - Knowledge communities

Proposal

The players in the civic and social sector should invent new forms of relaying experiences and knowledge regarding ICTs, by learning from experiences of reciprocal knowledge exchange and training by cascade.

The reasons

Regarding the uses of information technologies, training is given less by formal channels, although these should not be neglected, than by a process of progressive steps of life-long apprenticeship, spanning work, services, leisure, and social life. By simultaneously permitting the learner to become teacher, experiences of knowledge exchange networks permit a means of bypassing failure in learning and have revealed themselves to be very rewarding for the individual. When applied to information technologies, these methods permit changing intergenerational relationships (e.g., the child teaches the adult), and winning back the pride of possessing knowledge. The pertinence of these approaches has been demonstrated in France, with knowledge trees, and in the USA, with Prairienet⁶.

In the town of Parthenay, the knowledge exchange network that existed before the installation of "intown-net" now uses the network to diffuse requests for and offers of knowledge: a request to learn about rock-climbing or special diet cooking or an offer to write a training course report or to obtain information on genetic illnesses, etc. Everything circulates on the network, freely and reciprocally.

⁶ <http://www.prairienet.org/>

<http://www.district-parthenay.fr/res/>

A8 - Domain names: public property, service in the general interest and taxation

Proposal

Some generic domain names should fall into the public sector and in no way should private companies be able to acquire them (e.g., culture, education, public service etc.). They must only be used by public bodies for missions in the general interest.

The management of national domain names should be confided to organisations entrusted with genuine missions of public service and they must be prohibited from reaping the financial fruit from monopolistic situations.

The sale of domain names should be subject to taxation, the rate varying according to the status of the purchaser (.org would be taxed at a low rate provided that it be reserved for organisations capable of proving their non-profit making status, whereas.com and the new .biz or .pro would be heavily taxed) and its turnover in the case of the commercial sector.

The revenue from this tax, managed at international level, would be used to fuel social and citizens' projects making use of ICTs.

The reasons

There are many problems related to domain names. In particular we mention the following difficulties: they are managed in an opaque way, without control by citizens (Cf. Afnic) in France, and without taking into account cultural diversity (cf. new names given out by the ICANN);

they are subject to arbitrary tariffs and do not take into account the acquirer's status;

there are no public domain names (cf. education.com was bought by Vivendi-Universal);

they are subject to speculation and certain "cybersquatters" make raids on non-attributed names in order to resell them for astronomical sums;

Those who gain access to the Internet later will be "domainless", dispossessed of the most significant names.

In the United Kingdom, the management of the new domain name ".coop" intended for the co-operative sector was entrusted to an access provider operating as a co-operative: Poptel. It won the contract since it planned to pay part of the profits generated into a "fund to combat the digital divide".

<http://www.poptel.net/>

A9 - Tax on the flow of information of large corporations

(≠ this proposal contradicts that which follows)

Proposal

The physical quantity of information should be measured and taxed if over a certain volume, so as not to handicap small businesses and players in the social economy when entering the information era.

The reasons

As an instrument of public authority, taxation has been severely hit by a number of phenomena linked to globalisation, including the transfer of most financial transactions to a deregulated and tax exempt space, and the increase of sums circulating via tax havens and parallel financial circuits.

The explosion of e.business has exacerbated this phenomenon: the rapid development of immaterial commercial transactions via the Net and the appearance of dedicated on-line currencies lead to a situation whereby the trade of tomorrow will escape taxation, depriving governments of substantial revenues and one of its most important tools. It is therefore essential to devise new means of levying taxes, which, while allowing these new types of trade to grow, would benefit society and allow governments to continue carrying out their role.

A10 - Moratorium on the taxation of computers in the South and a preferential tax for participation in local economies

Proposal

States deemed "developing" should temporarily reduce or stop taxing the sale of computers and all other ICT related tools. A variable tax can be devised according to the sector concerned and its level of social usefulness (e.g., exemption for the education sector, low taxation of the associative and community sector, etc.). Another criterion in this variable rate could be the participation of local companies in fabricating and assembling hardware. This would require a waiver from WTO rules.

The reasons

The introduction of information technologies in the South constitutes a powerful development tool and a lever for growth. By virtue of this, companies that import or assemble these tools in the country should be exempted from taxation. Whereas in the North, governments have played a fundamental role in ICT research and development, the desire is for the market to predominate in this area in the South.

At the same time, two pitfalls must be avoided:

that of depriving the countries of the South of their already meagre tax revenues,
that of encouraging the penetration of products from the North without permitting endogenous development in the South.

This implies that fiscal efforts should be made to at least encourage the assembly, and at best the construction of the machines, in the countries, along with the transfer of the know-how this involves. A genuine assembly based economy must be developed, above all in Africa.

A11 - ICTs and pollution: for an integrated approach

Proposal

The wastes resulting from information technologies must be subject to systematic recycling. When possible, this recycling can be the opportunity to set up training with qualifications for the young (cf. the "computers for schools programme in Quebec" and certain French work employment integration companies).

The reasons

The changeover to the information era does not solve the pollution problem. True, information produces proportionally less waste than primary and secondary activities, though some countries are already confronted by information technology related wastes. Thus over 30,000 tons were produced in Canada in 1999 and more than 70,000 tons of waste are forecast for 2005⁷. Furthermore, some of this waste material is toxic (e.g., heavy metals contained in printed circuit boards, soluble lead oxide in computer cathode ray tubes, etc.).

Although the recycling rate of multimedia related products is improving, the question will become essential. At present these wastes are often stored since companies are loathe to dump expensive materials.

B - Access to training and participation

B1 - The indissociable access to training and participation

Proposal

All programmes intended to promote connectivity in a country, region, city or district must associate a teaching section with the technical and infrastructure sections. The specifications required from service companies must include a specific section on these subjects. In particular, cable operators could be specifically required to devote part of their profits to training.

In addition, all public access points must be equipped simultaneously with computers, connections and trainers-assistants capable of teaching the users not only to use the tools but also how to build simple contents –written – or more sophisticated – multimedia, artistic, etc. – and how to process the information hierarchically. The French experience of subsidising instructors (in the forms of jobs for the young) and its efficiency could inspire similar approaches in other countries.

The reasons

⁷ Cf. <http://www.mmedium.com/cgi-bin/nouvelles.cgi?Id=4695>

Access to ICTs is not only a question of equipment. Although the digital divide and its treatment are now fashionable topics, the aim is to give the issue of access its full importance. Apart from the very real problem of connectivity, the capacity to access ICTs supposes training in the new cognitive functions called for by ICTs rather than merely in the use of the machines, i.e. the capacity to understand content in flux, ordering information, contextualising it, understanding non-Cartesian logic based on uncertainty, etc. This is the condition that will allow the revolution bought about by these tools to take people from being mere information consumers to being critical citizens able to order and sort this information, and that of players capable of creating their own content. Thus ICTs can be the vector for personal development and active citizenship.

B2 - The multiplication of public access points, the fruit of a multiple partnership

Proposal

The industrialised countries should install public access points in public places and social premises (administrations, cultural centres, social centres, schools, district facilities, association premises, etc.). In urban areas, a public access point should be available within a radius of a few hundred metres from the place of residence of every citizen.

This installation of a dense web of public access points can only result from co-operation between the public, private and non-commercial social sectors. The actors of the latter sector can either provide social premises naturally adapted to opening up a public access point (community association premises, telecentres, cultural premises, etc.) (see below) or assist in creating innovative contents and uses. Public and private actors should combine their forces to finance these spaces, including in the most sensitive areas (isolated rural areas, disadvantaged urban areas, etc.).

The reasons

The active policies related to opening up public access points carried out by certain local authorities have given results. These experiments should now be extended and generalised. They constitute the first lever in combating ICT inequality.

In the town of Brest, public access points to Internet (PAPI) are located in municipal premises, including district libraries, community centres, and district facilities open to all. There is a total of 33 PAPI that provide each citizen with a public access point within a radius of 500 meters from his or her home. Furthermore, the 36 primary schools are all connected and some of them are open to the public outside school hours for training and setting up projects.

<http://www.mairie-brest.fr/cnt/papi.htm>

B3 - Community and organisation premises (or telecentres), privileged points of access that should be recognised

Proposal

Access points run by organisations, called telecentres in some countries (principally in Latin America), and community networks in others (principally in Anglo-Saxon ones), should be given official recognition by public authorities and especially by local authorities. This recognition should result in concrete partnerships (making available municipal premises, specific incorporation in municipal budgets, priority access to broadband networks, etc.).

The reasons

These access points fulfil a social role that has no equivalent:

- they are developed in disadvantaged districts and isolated regions,
- they are most often intended for populations that are potentially the primary victims of technological exclusion,
- they combine technological training with other functions (e.g., elimination of illiteracy; professional training, initiation in the arts, sports activities, etc.),
- they are strongly rooted in local life,
- they constitute places for building new knowledge.

Thus the results of their work should be recognised so as to promote dissemination and interaction with other sectors of society.

In France, certain multimedia and cultural spaces work with the children and youths of the districts in which they are located, for example, the "Friche Belle de Mai" for the Quartiers Nord of Marseilles and "Main d'Oeuvres" in Saint Ouen, a suburb of Paris. They use art as the unifying element of their approach and, by focusing on the work of a rapper or poet, for instance, they get children and young adults to investigate their immediate environment, by collecting the sounds and images of their districts which they then use to create their own multimedia content. At the end of the training course, they leave with a product that they have co-authored (CD or CD-ROM) and are trained to use sometimes very sophisticated sound and image processing software.

<http://www.mainsdoeuvres.org>

<http://www.lafriche.org/friche/multimedia/index.html>

B4 - The quality of services for all

Proposal

Making available two speed services should be avoided: the ergonomic design of terminals, transmission rates, reliability (of cables, multiplexers, servers, etc.) should also be of the same good quality in disadvantaged and isolated areas (rural regions, etc.) as in the rest of the territory. A special effort regarding infrastructure should be given to these territories.

The reasons

A new hierarchy is appearing in Western countries between quality networks (high bandwidth, machine reliability, etc.), those for the rich, especially the scientific and business sectors, and the traditional networks, those of the poor. Even though many people would be happy to be able to access a normal network and consider that high bandwidth and ergonomic design are secondary considerations, care must be taken once again to avoid a situation of inequality. This is all the more important since service quality is the essential condition for creating content and not remaining a simple consumer.

In France, an economic interest group called Gitoyen, which brings five actors together, was set up at the beginning of 2001. It aims to create a new Internet infrastructure for hosting sites and providing access, supplying a non-commercial alternative in an essentially community minded framework. The group permits users to buy national and international connections at the lowest prices, thus it acts as a telecommunications operator for its members.

<http://www.gitoyen.net/>

B5 - Broadband, the new challenge for a universal service

Proposal

The development of broadband access must be disassociated from the choice of access provider. Broadband service suppliers should provide non-discriminatory access to all access providers, whether commercial or non-commercial.

Citizens networks should organise themselves in the same way as they did for the first generation of Internet, so as to provide an alternative to the ADSL supply provided by private companies; as with wireless local loops today, so with Internet 2 tomorrow.

The reasons

The development of broadband appears to be the new Trojan Horse used by telecom companies and their subsidiary access providers for controlling access and content. For example, in France, France Telecom obliges its customers to choose Wanadoo as access provider when the customer opts for the Turbo flat rate in ADSL. This coupling of broadband /access provider is the best way of eliminating competition and preventing in particular the development of such activities by organisations and municipalities.

Furthermore, since in most countries these companies are not obliged to provide connections to disadvantaged areas, the risk of broadband being used only by the rich is fast looming over the

horizon. Another point is that they are not obliged to allow civil organisations to use their cables to make broadband available where they do not.

This control over access also permits orientation towards commercial content and influences the Internet user away from content provided by citizens' networks and free resources. Lastly, even though they do not abuse their positions in practice, there is nothing to stop an access provider holding a monopoly to censor the content it sees fit.

B6 - Setting up infrastructures: the need for the public authorities to take on their responsibilities

Proposal

Setting up infrastructures cannot simply be left to the market. They must be integrated in a global vision of public service, which implies:

that setting up infrastructures in the countries of the South will permit them to keep control over them. Perhaps some of the profits made by the countries of the North from the sale of licenses could be paid into an ICT "social development fund" to permit the countries of the South to finance their needs for infrastructures independently;

That setting up infrastructures in the North satisfies very severe public service specifications, including a grid covering areas that would normally be excluded from these infrastructures;

that part of the profits made by these companies should be paid back to the state which would then pass it on to non-commercial players active in ICTs and their use in developing countries.

The reasons

Behind the construction of network infrastructures can be seen fundamental stakes related to governance.

Given that the need for connectivity in the South is so important, this construction could be the opportunity for the companies of the North to gain even more power over their economies. We know that control over the "pipelines" leads to possible control over the content that passes through them, and it will open up commercial highways for software developers, commercial sites and portals. This explains in part their recent enthusiasm for reducing the digital divide between the North and the South. In time, far from reducing the digital divide, there is a risk of further exacerbating the dependency of the South on the companies of the North, thereby strengthening the vicious circle of development/debt/dependency.

The following phenomenon has already been observed in the North: certain local and national authorities hold auctions to sell licenses (3rd generation telephone, ABLR) or contract out without control (cable, optical fibre, etc). This purely commercial approach by which the state washes its hands of responsibility, taking the standpoint that the market will solve the problem so let's cash in for the maximum profits by selling to the highest bidder, is not without consequence for the consumer who, all said and done, pays for what the state gains. However, this levy would not be problematic if, on the one hand, the contract sold contained specifications including ambitious missions in the general interest (e.g., the obligation to cable unprofitable districts and areas), and if, on the other hand, the money raised from the market were invested in the "social and civic" sector of information technologies. However, such is not the case. Italy is the only country to have specific plans to set aside 15% of the profits generated from selling mobile phone operating licenses for such uses, proving that the idea is feasible.

In Canada, the law now in force requires cable operators to pay 5% of their profits to civil society organisations. However, in practice this law is seldom applied since it contradicts other measures taken by the state to divest itself of responsibility. The municipalities of some Italian cities take a strong stand vis-à-vis companies and demand that the latter provide financial support to players in the civic and social sector, arguing that they will improve their image by doing so.

B7 - Making the process of privatisation and awarding contracts transparent while associating the civic and social sector

Proposal

All privatisations and awards of public contracts must be subject to prior public consultation to which social and civic players can participate.

The reasons

Insofar as the decisions concerning these actions have considerable impacts on the management of public property, they should be made above board (especially in countries where such decisions are

made in complete secrecy) and by associating social and civic players upstream in drawing up the specifications.

B8 - The diffusion of PCs at low prices for low-wage earners

Proposal

Taking the example of what has been done by some companies in the household appliance sector (Cf. the "Envie" network in France) and with computers (Cf. Actif DPS in the Paris region), computers can be recycled and sold at low prices that low-wage earners can afford. At the same time, this activity can generate jobs and training for people in search of reintegration.

Furthermore, the public policy implemented in Quebec to aid families could also be applied in other countries.

The reasons

Although the multiplication of public access points must remain the priority, efforts should be made to encourage segments of the public who do not frequent public spaces to purchase computers. This individual access requires elementary training to make such purchases worthwhile.

This incentive to purchase could take two forms:

partial financing of the purchase by the public authorities, as is done in Quebec (financial aid for the purchase or hire of a computer and also for Internet connections).

Encouragement of social economy initiatives by the public authorities permitting the recycling of computers at low prices.

The first solution appears to have borne fruit. 100,000 families in Quebec have been connected to the Internet in under a year. Nonetheless, this programme raises several questions: it leaves the poorest who are unable to pay the difference by the wayside; for those who do benefit, how will they pay their subscription when the programme ends in March 2001? More generally, is it justifiable to spend CA\$120 million for these connections in a country where poverty is growing daily and while elementary needs remain unsatisfied?

The second solution, that of relying on socially oriented economic circuits rather than on one-off programmes, has the advantage of lasting through time and generating jobs. Still in Quebec, computers recycling has been considered, but to equip the state's schools.

B9 - Giving computers to the countries of the South: no technology transfer without the transfer of competencies

Proposal:

Any donation of computer hard and software to the countries of the South must be accompanied by the transfer of competencies enabling local players not only to recycle, adapt and maintain them but also to acquire the competencies to sustain endogenous development.

The reasons:

The current practice in Western countries is to replace computers every two years and ship obsolete computers to the poorest ones. Thus the North assuages its conscience on the cheap (transport costs) and pretends to fill in the digital divide by transforming the South into an international dump. As for the countries of the South, they are so dependent that they are grateful for the charity.

It would be immature and counter-productive to stop these "gifts". However, it is vital to take precautionary measures, by ensuring that technical backup is available on site and by transferring competencies, using the material given to develop local know-how.

C - ICTs and representative democracy

C1 - Obligation to systematically make available local, national and European public texts on-line before and after their adoption

Proposal

The legislation and rulings of local authorities, governments and supranational bodies should be made available on-line with the possibility of downloading. This work, which is already systematic in some countries for texts adopted by administrations and legislative bodies, requires an additional task of

simplifying and organising the information in order to make it accessible and understandable by the greatest number.

It is above all the proposals of texts (drafts, proposals of laws, directives, municipal rulings, etc.) that should be systematically put on line to allow citizens to learn of them, discuss them and formulate alternatives.

The reasons

Although certain administrations (efforts have been by the French government concerning this) have made considerable efforts to put the documents they issue on-line for citizens, it should become systematic to ensure transparency and better information for them, especially regarding budgets. In addition, this information must be well organised, be accompanied with adapted search engines, etc. As for announcing the texts before their adoption, there is much to be done.

C2 - Setting up counters for accessing the administration

Proposal

Dedicated on-line counters for accessing the administration should be opened jointly by local authorities and local branches of government, social services (health, social security, etc.). For each portal, a team would receive citizens' queries and aid them to carry out their administrative procedures on-line (obtain a form, tax declaration, publication of bans, obtaining ID cards, update dossiers, etc.)

The reasons

The development of ways of carrying out administrative procedures on-line is already a step forward, but it is not enough. These electronic administrative approaches do not satisfy the following needs:

- Training to use these tools,
- Access to this simplified procedure for non-equipped persons,
- Solutions in case of complex administrative procedures,
- Human response from the administration.

Opening up these dedicated counters will oblige administrations to co-operate together in making access easier and in maintaining and even strengthening their role in forming a personal link between the administration and the citizen. They would also contribute to creating a new profession: that of "administrative mediator" whose primary role would be to ease relations between the administration and the citizen.

C3 - More accessible and interactive elected representatives

Proposal:

Following on from what has already been done by certain pilot projects, the aim is to systematically develop Internet access for elected representatives in the framework of their relations with their electors and train them in using these new democratic practices. In addition to the most complete and interactive Web-sites possible, new systems can be devised to permit fuller and more permanent dialogue between elected representatives and their citizens. This implies that the different assemblies equip themselves with the appropriate technical and financial resources (payment of a forum co-ordination team, etc.).

The reasons:

The public authorities should not forget that they must set the example in getting citizens to use the Internet by appropriating it beforehand.

Assemblies of local, national and supranational assemblies should be better equipped so they can develop relations between politicians and citizens.

It is now possible to consider a modernised legislative process with decisions being made in view of all, access given to information on the changes made to texts, and the opportunity given to groups of citizens concerned. These possibilities should become duties for the state at both local and national levels.

Building direct dialogue via the Net between elected representatives, the administrators that work with them, and the citizen has reached a cul-de-sac. The few experiments that have been carried out (e.g, Agoranet in France) show that elected representatives are either incapable of handling the flow of questions that reach them, or else they are openly hostile, considering that the mandate given to them by vote is sufficient to prove their legitimacy and that they have no need of gadgets.

Furthermore, it can be used for electoral campaigning, thus legislation should be adopted to prevent any abusive use, which has already occurred in the preliminaries to the municipal elections in France (adaptation of commercial pressure for political purposes).

C4 - Prohibition of on-line voting throughout Europe

Proposal:

The European Charter of Basic Rights or, if not, EU treaties should guarantee each EU citizen the right to vote without hindrance, free from any pressure. Consequently, on-line voting should be formally prohibited from voting in all elections in Europe.

The reasons:

Although an initial experiment with on-line voting took place in Arizona in March 2000 (for the Democratic primary elections), with unquestionable success (16,000 e-voting slips in 24 hours), this approach appears dangerous for several reasons:

It does not give the elector the guarantee provided by the voting booth; the pressure exerted (e.g., by the family) on the person before his or her computer screen cannot be known;

It adds civic inequality to economic inequality: citizens possessing computers connected to the Internet can use this opportunity to vote twice;

Above all, it reduces elections, which are the crucial events of representative democracy, to mere "push-button" events that do not take into account the essential part of the process occurring beforehand in public debates, the confrontation of proposals and positions, and the formulation of the citizen's choice. It is a method of voting that turns the citizen into a political "consumer", who, after having ordered a new watch on the Net, then chooses his or her preferred candidate on the strength of their web site. Since elected representatives are already too often persuaded to take options based on opinion polls, on-line voting will make their task even more demagogic and short termist than ever. Many elected representatives, especially in Europe, appear fascinated by on-line voting, imagining that it would be the panacea for the crisis that representative democracy is undergoing and fill the gap separating them from their electors. This is the illusion that must be countered by prohibition, since it denatures the very essence of the democratic process. Certain national laws provide a sufficiently strong legal rampart (e.g., the French constitution), but such a prohibition should be implemented at European level and be incorporated in the basic principles of the European Union.

On the contrary, it should be noted that such a prohibition does not prevent electronic voting, i.e. voting via a keyboard in a public voting office. This practice provides all the guarantees of traditional voting by placing ballots in boxes, facilitating counting and reducing the risk of fraud.

C4b - Setting-up on-line voting throughout Europe

(≠ in contradiction with the previous proposal)

Proposal:

On-line voting should be encouraged and developed for local, national and European elections.

The reasons:

On-line voting is a matchless means of:

encouraging people on electoral rolls to use their right to vote and therefore combat abstention;

Bringing the elector closer to the candidates, developing the democratic debate, encouraging considered and informed voting (via links with the candidates' sites, legal information, polls, etc.) and thereby combating the crisis of representation.

Guaranteeing confidentiality and transparency, since no relation can be made between the elector and the vote; calculation of the votes is automated.

Furthermore, contrary to accepted ideas,

On-line voting does not harm the principle of free will, since anyone can vote from any terminal and, whatever the case, possible pressures on the voter occur well before the act of voting.

It is not only intended for persons equipped with a personal computer as voting can be done from an office workstation or from a public access point.

C5 - Training of employees of local authorities and public administrations

Proposal:

The personnel of local authorities and public administrations should be given systematic training in the efficient use of ICTs, both for their relations with citizens and with their colleagues. This can be done by encouraging familiarity with networking.

The reasons:

Public employees are currently totally unprepared for the changes in their work brought about by ICTs. The problem stems not so much from the difficulty of learning the techniques of using these tools as that of adapting to the change in administrative practices caused by their introduction. Civil servants are trained to conform to administrative hierarchy, whereas they must learn to work in networks, implying information sharing, the reduction of hierarchical pyramids, closer relations with citizens with priority given to listening to their problems, etc.

C6 - Internal democracy in all intermediate bodies

Proposal:

Organisations, labour unions and political parties should use ICTs more systematically in the service of internal democracy to break down hierarchies and draw grassroots sections of these organisations closer to their decision-makers in the process of democratic debate. On-line voting can also be implemented within these organisations, facilitating democratic expression while ensuring the freedom of representation.

The reasons:

That which holds for the European Union, governments and territorial authorities should also hold for other players in democratic life, whether they be political parties, labour unions or organisations. At present, however, the latter are far from having taken this step, since most of them merely use ICTs as a showcase. More generally, they are very quick to criticise public authorities for faults that they themselves have internally. Nonetheless, internal democracy, transparency and genuine debate are just as important within these organisations as in relations with public authorities. They participate in a democratic culture that must nourish the whole of society. These organisations would bolster their internal and external legitimacy if they too could profit from the best that networking can give them.

D - ICTs and civic and social innovation

D1 - Utilising and diffusing pioneer experiments in community and social uses of ICTs

Proposal:

Set up tools for capitalising and sharing innovative experiences in the social and democratic uses of ICTs.

The reasons:

During this pioneering stage of using ICTs for social and democratic purposes, it is necessary to share innovations so as to benefit from both positive and less positive experiments. ICTs themselves now provide the tools required for this pooling of knowledge (on-line databases, resource centres, clearing houses, etc).

Some organisations have started to take this approach, e.g., e@cn in Europe, Funredes in Latin America, etc., but often as an additional activity, generally due to lack of financial backing for this type of project.

However, this work of collection, observation, evaluation and capitalisation can be useful for players in the public and private sectors. Thus it could give rise to new partnerships between these three sectors.

D2 - Tools in the service of participatory democracy

Proposal

A work group should be set up that associates civic networks and researchers in view to developing tools satisfying the need for internal democracy in these networks and the need to fuel democratic debate via more participatory approaches.

The reasons

A large number of civil and/or political networks seek to promote participatory democracy by organising consensus conferences, participatory budgets, district associations, etc. alongside renewed forms of representative democracy. Without waiting for the ICT revolution to occur, some have also sought to develop tools to facilitate democratic debate (e.g., Abaque from Régnier, Péricles, etc). Since then, different experiments such as virtual consensus forums, experiments with remote democratic participation via the Internet have been carried out. New tools could be developed that meet expectations for democratic benefits from citizen networks by basing current research on groupware.

D3 - Using the Internet as a means of sharing proposals made by players in the civic and social sector and making them coherent.

Proposal:

A "clearing house" (or on-line resource centre) should be set up specialising in identifying and listing proposals from citizens.

The reasons

Players in the civic and social sector spend much energy in formulating alternative positions and proposals. However, these proposals come up against the difficulty of media exploitation (the media focus more on the protest, especially when violent, than on the alternative proposed) and they are insufficiently relayed by other movements which are most often unaware of their existence or their convergence with their own concerns. An on-line resource centre would permit drawing up a real-time map of citizen proposals in areas as diverse as ecology, women's rights, local democracy ... and the social appropriation of ICTs!

D4 - Formulating indicators of the social impact of ICTs by players in the civic and social sector

Proposal

Indicators based on multidisciplinary works (sociology, anthropology, cognitive sciences, etc.) should be formulated that permit measuring the real transformations caused by the introduction of ICTs (in teacher-pupil relationships, power in the company and in administrations, etc.)

The reasons

The public authorities do not always systematically set up indicators to measure the ecological and social impacts, etc. of scientific and technological developments; however, the civic and social sector should formulate its own indicators of the social impact of ICTs without waiting.

D5 - Setting up an observatory of ICT related policies and uses and an interface between the players in the civic and social sector

Proposal

"Interfaces" should be set up to permit better co-ordination between players in the civic and social sector and European and national decision-making bodies.

This entails imagining new types of structure and places that federate the network of networks, allowing them to discuss freely with the public authorities.

These new structures, set up in the different countries of Europe and co-ordinated as a network, should constitute;

- an observatory of social uses,
- a centre of analyses and forward studies on the social impacts of ICTs,
- a consulting and expertise panel for public decision-making.

Its tasks could be based on the following directions:

- Collecting and exchanging all practices related to the social and civic use of these technologies,
- in-depth consideration on the impacts of these technologies on citizenship, culture, jobs, exclusion, the environment, health, training, work, money, consumption, public services, etc.
- evaluate the ease of use (interface ergonomics, cognitive simplicity, on-line help, pertinence of functions, required configuration, etc.) of ICTs for social purposes.
- publish, diffuse and propose for debate the conclusions of this research, since citizen empowerment in this area requires knowledge, awareness of the decisive nature of the choices to be made, and the power of action vis-à-vis these choices.

- convert the knowledge gained into policy documents by taking care to incorporate this policy at European level, since a large number of subjects regulated by the state are now dealt with by European policy.

The reasons

Governments still take an overly bureaucratic and insufficiently political approach to ICT related issues. They forget the task of rethinking the society we want to build while focusing on technological challenges. The task in hand is not only to regulate the diffusion and use of technologies but a new dimension of technological progress leading to a new society, new perceptions and another overall culture. The potential societal impacts of ICTs far outweigh the regulations required for the development of uses of the Internet. Nothing is known of these impacts in most cases, and it is too often forgotten that politicians should show the way for both the design and use of technologies and not simply adapt regulatory and legislative frameworks to dam the perverse effects of technology. Such a network of open places conceived at European level would make up for this lack of vision on the relationships between technologies and society and fuel political consideration on the practices of players in the civic and social sector. Organisations and other players in the social economy are in contact with a very representative portion of the population (45% of the French population over 15 years old belongs to an association) and their economic activity is considerable. Consequently, they represent a very efficient "cog" and lever.

D6 - The creation of virtual social currencies

N.B.: this proposal is in contradiction with that on the prohibition of alternative currencies.

Proposal

The players in the civic and social sectors, especially those that have already introduced ICTs into the mainstream of their activities, should equip themselves with one or more virtual currencies, thereby facilitating exchanges within the non-commercial sector. Organisations in networks (or Communities networks) could carry out initial experiments to develop the first virtual social currency.

The reasons

The players in the civic and social sector, i.e. the social economy, organisations, etc., are faced with a two very real problems:

On the one hand, they constantly lack resources to finance their different activities and projects and are traditionally dependent, even having to "beg" for public and private grants and subsidies.

On the other hand, they have "non-commercial" resources: time, availability, know-how, personal energy and so forth impelled by values. These are teamwork, the desire for transformation and interaction with the world, generosity, etc., which are not listed at Wall Street or Frankfurt.

Inspiration can be found in various experiments, such as Red Global del Trueque in Argentina, SELs in France, LET in the UK, Time\$ in the USA, etc. These have created a community of exchange of services, property and know-how often linked to a specific territory along with specific non-convertible currencies. A source of social cohesion, they help integrate persons excluded from commercial circuits, and they generate wealth; thus they could take on a new dimension with the introduction of a virtual currency. The creation of a virtual, social currency would also permit exchanges between these communities, particularly of know-how and expertise.

D6 b The prohibition of alternative on-line currencies

N.B.: this proposal is in contradiction with that of creating on-line community currencies.

Proposal

Governments should negotiate an international agreement banning alternative and virtual currencies created by non-banking organisations not belonging to the monetary system. Only electronic money associated with the traditional banking system should be developed.

The reasons

The multiplication of alternative on-line currencies erodes the power of governments regarding monetary policy, by drawing off considerable tax revenues. It is also part of the logic of massive deregulation that already dominates international finance. Although they do not represent a real danger in their present experimental stage, in the long term they will play into the hands of ultra-liberal ideology. Furthermore, their use in electronic channels means that they can be created in unlimited

amounts, circulate at incredible speed and thus contribute to the general fragility of an already unstable system.

D7 - New areas and new forms of combat for labour unions

Proposal

The use of information technologies, among other things, by labour unions help them to face up to the transformation of work caused by these same technologies. Combats carried out in networks can be organised in particular to achieve the following objectives:

Set up a fair wage policy and social protection for employees in the sector, whatever their status (freelance, temporary, employee);

Respect of working hours;

Creation of the status of independent worker where it does not exist;

The right to isolation and protection of private life at work, especially the forbidding of monitoring employees' e-mail by employers;

Setting up salary scales calculated on a basis other than working time, etc.;

The right to union information via ICTs (possibility of using Intranet and company Web sites);

Etc.

The reasons

The construction of new forms of work regulations calls for new types of combat since traditional unions no longer know how to build a balance of power with workers that are often not salaried and have no territorial base. Thus unions are obliged to renew themselves in order to adapt to scattered workplaces, all types of hours, new skills, etc.

Many innovative union initiatives exist in this area, in both Western countries (e.g., Union Network International in the United States, which groups four international federations of telecom, multimedia, printing, and publishing workers; Communication Workers of America ; UNSA in France, ATMQ in Canada, etc.) and in the South (Cf. the Indian initiative of Bangalore in November 2000). These experiences need to be widely diffused by social movements and supported by civic movements. Lastly, legislative or at least legal work needs to be done to protect these new forms of union action.

D8 - The economy in networks: long term questions on the usefulness of unions

Proposal:

An inter-union seminar to study the transformation of the relationship between capital and work in the network society.

The reasons

Unions are confronted with a twofold radical change due to the emergence of the network economy:

On the one hand, the well-known phenomena of economic dematerialisation and the generalised computerisation of production in every sector continue to eliminate human labour from these same processes. As for job creation, it bears no relation with traditional work models (Cf. above);

On the other, the very nature of capitalism is changing: owning production resources is becoming increasingly less important for capitalists, as the new challenge is to control the accesses and flows of networks, the new central source of revenues, along with purely speculative revenues.

Thus the nature of union combats will shift, but they must be able to anticipate. Certain players in the social economy, for example, consider that unions can change their nature and enter into the capital of the companies operating in this network economy, as has already occurred with the take-over of pension funds to orient speculation on stock markets by using money collected for social purposes.

Although these directions may appear *a priori* in contradiction with the prime objectives of unions, they deserve consideration in view to renewing the basis of unionism.

D9 - Creating an interface between civic and social players of ICTs, public research and development centres and engineers

Proposal

A permanent working structure should be set up in order to create an interface between the scientific community and civic and social players so as to pass on social demand related to ICTs.

This structure should associate:

- Scientists involved in developing future information technologies,
- Civic and social players that use information technologies and developers of new uses,

- Sociologists and ergonomic designers capable of bringing together these emerging practices and helping to formulate demands vis-à-vis scientists and the technology sector.
- Likewise, "twinning agreements" could associate a laboratory with one or more citizen networks.

The reasons

The strategic choices for research and development of ICTs carried out by public research and development institutions (e.g., CNRS, INRIA, CNET etc. in France, the Framework Programme for Research and Development in Europe, the National Science Foundation in the United States, etc.) and bodies that link the public and private sectors only take into account the needs of the private sector and the market. This can be explained by the mandate given to them by the ministries that oversee them, and also by the composition of their boards, which never include civic and social organisations that use the Internet. Failing their inclusion in the management boards, permanent working structures could be set up to make these scientific and industrial bodies aware of the problems that they ignore most of the time, by transmitting social expectations to these government and corporate establishments while, on the other hand, oblige social movements to formulate their demands in terms of technological advances. Success in this direction has been achieved by certain groups, such as the handicapped. Experience has shown that these civic and social players are:
innovators of new uses and contents that can lead to technological developments;
limited by technologies that do not satisfy their needs, e.g. immigrant communities who require oral vectors rather than written ones.

D10 - The promotion of tools adapted to different cultures, especially using speech and taking into account illiteracy

Proposal:

Encourage fundamental research to develop technologies adapted to linguistic and cultural diversity.

The reasons

Numerous experiences have illustrated that the use of adapted tools, such as sound files, videos, PDF format, e-mail with sound attached, etc. can be used not only to reach populations with no written tradition who are illiterate, but also to develop other new uses.

D11 - Links between community media

Proposal:

Community networks should improve their use of combining different media, especially community media, in order to bolster the impact of their actions.

The reasons

Although there is nothing new about community TV and radios, the fact that communities are setting up their own networks (community cable operators) and the possibility of combining different independent media makes them extremely useful, as was illustrated by the Senegalese elections of 2000, where fraud was greatly reduced.

D12 - Multiplying invitations to launch projects, a lever for innovation

Proposal:

The number of invitations to launch projects aimed at technological innovation in the area of ICTs oriented toward benefiting society and collective wealth should be increased.

These project tenders must be conceived under the following conditions:

the requirement for transparency (according to selection criteria, the projects chosen, the members of the jury, etc.);

decentralisation: their management could be entrusted to local co-operatives, incorporating representatives of the national or general interest.

obligation and resources to permit collaboration between projects: 10% of the sums allocated should be devoted to interfaces with other projects.

Evaluation: funds permitting systematic evaluation downstream of the quality and sustainability of the projects and diffusion to the public of this evaluation.

Innovation: a percentage of the budget allocated should be attributed to apparently very innovative projects, even if they do not satisfy reliability and sustainability criteria, etc.

The reasons:

This method can be justified by two main factors.

Firstly, regarding usage, this first period of experience has shown that innovations are made by a few pioneers in society and then propagated by "contamination". Thus these pioneers should be encouraged as should the diffusion and generalisation of these innovative uses, whether in the area of health, employment, developing associations, etc.

In addition, the role of government would change from one of impulsion to one of assistance, thus it should adapt the tools it uses to match this change of position. Hence calling for projects is of particular interest in this change of role.

Few systems of this type exist at present. Examples exist in France, with the Fondation de France, some regional councils, and the Ministry of Social Economy using them in a way that sometimes gives rise to controversy.

E - ICTs, public rights and liberties

(NB: these proposals are taken directly, though sometimes freely adapted, from the works of IRIS – imagine a social Internet network (imaginons un réseau Internet solidaire) <http://www.iris.sgdg.org/>. IRIS cannot be held responsible for any of the changes made).

E1 - Limiting the responsibility of hosters at national and international level

Proposal:

The civil and penal responsibility of technical intermediaries ensuring access, transport, storage and hosting should be limited in the case where they have actually participated in the creation of the content hosted, and thus become publishers/authors or co-publishers/co-authors.

The reasons:

The primary characteristic of the Internet is that it permits everyone to express him/herself publicly to everyone else without a mediator. Although the press and traditional audio-visual communication corporations (radio, TV) should remain subject to the laws concerning them, whether they diffuse in or outside the Internet, this should not be the case for individuals, associations or organisations not belonging to the commercial sector, and which will never have the same financial resources nor the same impact on the public.

Any other view would encourage the intermediary to act as censor, thereby implying the submittal of free expression to the arbitrary decision of a person or structure, either commercial or non-commercial. Such a result would be a breach of the law and does not take into account the technical impossibility of permanently monitoring the thousands of Web pages they host.

E2 - Authorisation of encryption, a framework and limit for connection data and regulations for advertising

Proposal:

Freedom of encryption should be total in countries where this is not yet the case, despite any invocation of government prerogative.

What is more, although some data concerning connection need conserving, for example, for invoicing or judicial investigations, such conservation should:

be limited in duration, one month seeming to be a reasonable period;

be totally prohibited for certain types of data. For example, data proving the consultation of a site concerning the person's privacy can be used for illicit purposes (making character profiles, collection of sensitive data) and therefore should not be conserved, as opposed to simple Internet connection data as such;

be subject to the obligation for access providers to warn users of the destinations of the data they collect, the length of conservation, and request the agreement of users for any utilisation of these data, especially for lucrative purposes.

Lastly, advertising on the Internet should be given a legal framework:

on the one hand, and likewise for the other media, the distinction between journalistic content and advertising content should be clear;

on the other hand, very aggressive and expensive forms of advertising in terms of time (since they extend consultation time) on the Net should be limited (e.g., pop-ups).

Lastly, the consumer should be asked for his/her prior consent for the reception of unsolicited commercial messages.

The reasons:

Potentially, the Internet is a vector of new kinds of infringement of individual rights, especially concerning privacy and the protection of personal data.

Technically, this can be explained by:

The possibilities of mass archiving and processing personal data, further facilitated by computer processing in networks.

The ease with which current navigation tools can draw up consumer profiles, by the use of cookies whose existence is sometimes unknown to the victims.

The possibility of sending unsolicited low cost advertising mail (spam) that swamps the letter boxes of thousands of persons. The cost to the senders is offset by the fact that the addressees pay part of it.

Encryption is the first essential answer to these risks regarding personal data, but it is necessary to go beyond this and avoid a situation whereby every Internet user becomes a traceable marketing target subject to commercial harassment against their will.

Beyond the question of protecting the elementary rights of the individual, that of a choice of society is at stake: the Net-economy must not be used as pretext for every act.

E3 - Protecting and extending union freedom and rights on the Internet

Proposal

The different rights existing in national legislations related to the freedom of the unions should be extended to the Internet. Among other things, this includes:

the right to use electronic means to diffuse information and communications, organise union meetings and permit discussion (forums, lists, etc.);

the right for unions to have their own space in the company's Internet or Intranet site, if any.

companies should make available to unions a workstation equipped with office management and communication software and a connection with the network.

The reasons

Although unions themselves must make an effort to adapt their combats in both substance and form in the informational era (Cf. above), the law should not constitute a brake on this adaptation. Information technologies must not be used as a pretext for limiting union freedom.

E4 - Guaranteeing decent working conditions and prohibiting practices harmful to employees rights

Proposal

In every country and at European level, legislations must be drawn up to:

guarantee the upholding of decent working conditions, by taking into account the changes brought about by the development of computerisation, use of the Internet, the development of e.business, the spread of telecommuting, etc.;

prohibit all monitoring of employees without their knowledge and any direct or indirect action aimed at collecting information on employees' behaviour and their centres of interest (e.g., reading their e-mail);

extend the principle of confidentiality of private correspondence to employee's e-mail.

The reasons

The massive introduction of ICTs in production methods should not be used as a pretext for social regression. In particular legislation such as that adopted by the UK in 2000, allowing employers to read their employee's e-mail, should be declared contrary to the European Convention of Human Rights and Basic Liberties (Article 8 – Right of respect for individual and family privacy).

E5 - Updating the People's Communication Charter and its adoption internationally

Proposal

Taking the people's communication charter as basis (Cf. <http://www.pccharter.net/>), this entails formulating and bringing into law a text covering both the question of right to knowledge, the right to linguistic diversity and respect of privacy.

The reasons

All the rights and duties related to the advent of the informational era should be given legal substance and protection. At present they are prey either to a jurisdictional vacuum, or systems that vary greatly from one country to another. Citizens' networks active in the area of ICTs should militate for the adoption of such a charter by their countries and by the international authorities.

Conclusion

As mentioned at the beginning of this text, its purpose is to fuel constant debate and be modified accordingly. Its intention is to act as a starting point for consideration by different civic and social movements.

Above all it is a contribution to the "alliance for a responsible, plural and united world" movement (www.echo.org). The subjects dealt with here undoubtedly have connections with those of its other "workshops", especially those that deal with governance and citizenship, and the media. We hope that the different meetings of the 2001 Assembly will present the opportunity to discuss the whole or parts of this text.

Furthermore, the author of these lines, and all the other persons that have participated in this approach, belong to different networks of organisations, unions, political parties, scientists, etc. Without aiming to achieve artificial and unrealistic ecumenism, we hope that some of these networks will be able to use this text to at least fuel debate and at best as a resource for their own action. All of us in our own ways and diversity, in think tanks and movements for social progress, players in local development and international NGOs, are attempting to orient the society we want for tomorrow. Let's work together so that the network society now emerging opens up new perspectives of equity, solidarity and creativity.

January 2001

For VECAM and E@CN, Valérie Peugeot

II – IN AFRICA: the social control of ICTs:

Analysis and proposals resulting from experiences of using ICTs

Reporter: Ken LOHENTO,⁸

-April 2001 -

How can the African continent benefit from the changes brought about by technological innovations developed in the North? It seems that the introduction of ICTs – considered revolutionary – once again raises the question of development in Africa. *“Like a tightrope walker it attempts to go from point A (speech) to point C (the virtual) by passing via point B (writing), with the risk of falling and breaking its neck”*. (Mamadou SAMBA)⁹.

In parallel with the potential promised by these technologies, Africa must cope with structural problems. Computers and servers are affected daily by voltage drops and power failures. 70% of the population is illiterate in local as well as European languages¹⁰.

National economies are heavily burdened by debt while governments struggle to pay their employees, purchase computers and implement tri-therapy for AIDS victims.

This also concerns what Senyo ADJIBOLOSOO calls the "human factor"¹¹. One of the ADTIDEV application sheets produced by EIG WAGNE-Internet¹² on setting up the UNDP (United Nations Development Programme) SDNP (Sustainable Development Networking Program) in the villages of Cameroon concluded that these barriers limited the impact of this programme: *“Although rural populations are now open to ICTs, this does not solve their basic problems of poverty or the damage caused by AIDS and illiteracy”*¹³.

In spite of the problems affecting the development of ICTs in Africa, they are being used on a daily basis in a way likely to spread their appropriation by African societies. In particular, they will be studied on the basis of the AFTIDEV experience records.

Furthermore, emphasis should be given to the fact that the experiences described are not exhaustive and are not situated in the upper or lower end of the continent's performance with respect to its efforts to join the information society. They are simply given as illustrations of the diverse situations that exist there. Needless to say, although they contribute greatly in terms of development, they are also subject to insufficiencies. A large number of these experiences are carried out thank to financial aid given by the international community.

The problems confronting the birth of the information society in Africa can be grouped into four main types: infrastructures and access, training, content, and the regulation and governance of the Internet. Examination of the uses of Internet will be done according to these types.

Solving the handicaps of telecommunications and access

Faulty telecom infrastructures

There is nothing new in asserting that the development of information technologies in Africa is hindered by the poor condition of its telecom infrastructures. Most telephone exchanges are still analogue; The percentage of telephone installations for the entire continent is stagnating at around 1% for sub-Saharan countries (apart from South Africa). There are more telephone lines, the main medium for Internet connections, in Tokyo than in the whole of Black Africa. Getting connected can take several months, even years. Rural telephone networks remain undeveloped thus the Internet is the prerogative of city-dwellers. What is more, individual access to ICTs is hindered by the cost of computers (e.g., 28

⁸ kenloh@avu.org, www.beninnet.mailme.org, www.oridev.org

⁹ See the archives of the AFTIDEV forum (Africa, Technology, Information and Development), <http://www.aftidev.net>. The forum took place in 2000 on the social control of ICTs.

¹⁰ Although African languages such as Arabic, Swahili, Yoruba and Ahmaric have already been computerised, this cannot be said for the other languages, almost ignored since they suffer from problems of recognition, even when they are the languages spoken most in certain countries.

¹¹ See the archives of the AFTIDEV forum: “The HF (human factor) refers to the "spectrum of personality characteristics and other dimensions of human performance that enable social, economic and political institutions to function and remain functional, over time”.

¹² Cameroon Economic Interest Group, <http://www.wagne.net/>

¹³ Sheet entitled “Sustainable development”

times the minimum wage in Bénin)¹⁴, connections with the Internet and by telephone access conditions. The cost of access to ICTs is therefore prohibitive and restricted to the well-heeled.

Alternative solutions are used to overcome problems of access and transmission speed. This can take the form of an adapted technology such as the use of radio waves to connect a public service to the Internet. See the NGO Oridev in Benin www.oridev.org

In order to offer access to Internet at affordable costs, African companies and NGOs, such as Imedia Informatique, H2COM in Benin, Yam-Pukry in Burkina and Yinternet.org in Senegal, use a system allowing them to offer a simultaneous connection linking several stations to a single line and modem. By using the same technology, email is managed locally by a storage system and batch transfer. Thus it is accessible for all users at lower cost.

One of the advantages that national web mails managed locally can provide is a considerable reduction of costs and connection time. Once again, the problem here depends on the control of the level of technology used. Furthermore, national energy problems (voltage drops, sudden power failures) can lead to problems of access to local servers.

Deregulation, privatisations and tariff barriers between the North and the South

A logical corollary of the handicaps beleaguering the telecom sector in Africa is the fact that African countries are obliged to privatise their telecommunications services or to open up the capital of traditional national operators to private investors, under pressure from creditors. The financial and social conditions of these deregulations often go against the interests of African countries, which by consequence, are too weak to propose alternatives (mass layoffs, generous allotting of contracts to multinationals often operating from former colonial countries, (token shareholdings, etc.)

The operators of the North pay considerable license fees to the countries of the South for using their telephone networks (international calls from the North to the South are far more common than those in the opposite direction). This system permits financing national networks which are the exclusive property of the government in question. For example, in 1997, Vietnam collected \$260 million. However, under pressure from the United States and due to the privatisation of the South's networks, the tariff system was modified by the UIT in 2000 to the detriment of poor countries. Thus, the new tariff system causes the receipts of a country like Senegal to fall by 48%¹⁵. See "towards setting up an African satellite RASCOM" in the FPH DpD.

Regarding Internet tariff regulations, the situation is more complicated. Indeed, African access providers and service companies rent out Internet connections (bandwidth) to American and European operators. African internet companies are generally situated at the end of the line and are allowed less bandwidth, or rather they pay more for it. This means that consulting and providing information on an African server is more costly at this level of the network. An African hoster (i.e. generally a small hoster) needs a bandwidth corresponding to the frequency his web sites are consulted.

It is cheaper for a cybernaut from the North to consult a site in Africa, using the link paid for by an African country, than it is for an African cybernaut.

However, the costs should be distributed equally between all the users. We know that the methods of paying for Internet differ according to the space taken up in the network, the available transmission speed and the size of the market.

This leads to paradoxical situations: many African sites are hosted in Europe due to the poor transmission speed in the South. Africans use email service's such as Yahoo due to the tariffs demanded by African access providers for hosting a letterbox. What is more, the absence of connections between African operators means that it is not possible for several countries to share bandwidth.

Difficulties linked to training

Training to use new technologies

Africa does not have all the technical competencies vital for the efficient development of ICTs, in particular since these technologies, subject to constant advances, are all imported. Shortcomings in

¹⁴ A new "clone" computer costs about \$1000, whereas the minimum monthly wage is \$35.5.

¹⁵ See the economics supplement of Le Monde of 9/01/01,

training are obvious in the production of material for the Web (such as ASP, XML, PHP and Flash), wireless telecommunications technologies, the administration of Internet and intranet servers, etc. Likewise, training needs also involve freeware such as the Linux operating system that is less expensive than proprietary systems. This element can be an advantage in countries of the South whose resources are limited.

Paradoxically, it is still usual to see "experts" from the North, called on by Africans themselves or in the framework of projects in which they are involved, come to impart their knowledge, despite the fact that this knowledge is already well-known locally. Such practices often lead to swelling training budgets and do nothing to promote the appropriation of ICTs by Africans.

Initiatives are taken to make up for the shortcomings observed, especially regarding elementary computer training. Cf. "Computer training for young persons by the NGO Yam-Pukry" in DpD FPH.

This type of training, which is also implemented in other African countries by other NGOs, contributes towards improving computer skills and better arms young graduates for the job market. Contrary to the training given by companies, the training given by NGOs is often done under conditions that really enable trainees to appropriate the technology. This training mostly concerns word processing software and sometimes the production of web pages, etc. In fact few African schools provide their pupils with the opportunity of learning to use computers.

Self-training with new technologies

In parallel, remote training activities are starting up to compensate in particular for the limitations of local and national training institutions and their corollaries. Cf. "Remote learning in work related health research in Africa (FORST)" in DpD FPH.

To know more: <http://www.bamako2000.org/APPLICATIONS/FICHE69.HTML>,

Likewise, videoconferences are used at present for training sessions and new forms of totally electronic e-learning are in the experimental stage. This is the case of the Advanced Specialised Diploma in Documentation awarded by the Cheick Anta Diop University at Dakar.

To know more: <http://www.bamako2000.org/APPLICATIONS/FICHE94.HTML>

Towards the development of local contents and applications

The production of contents

In Africa, the context of producing contents on the Internet leads to several observations. Firstly, most of the contents published on the Web are in English. Secondly, verbal communication is loaded with African culture. Thirdly, the illiteracy rate in Africa is 70% for both European and African languages. In addition, the difficulties already mentioned on developing the uses of ICTs in Africa explain in part the limits related to producing content in African languages.

Furthermore, not only is most of the information available in European languages, but the information diffused is in fact advertising or for tourism. Thus, generally, the content does not aim at local populations. However, initiatives do exist that take into account needs at local level, such as the Urban and Popular Information System at Yoff in Senegal.

The Urban Popular Information System (UPIS) of the commune of Yoff in Senegal:

<http://www.siup.sn>

To know more: <http://www.bamako2000.org/APPLICATIONS/FICHE129.HTM>,

Other types of content are also available on-line and electronic versions of many African newspapers can be accessed. Contents also involve African culture and memory.

Regarding this, an interesting example is the ARTO project (Archiving of Oral Tradition) carried out by the Centre of Linguistic and Historic Studies in Orality (CELHTO) in Niger, a structure of the Organisation of African Unity (OAU). By collecting oral traditions through networks and rural radios, CELHTO has compiled sound tracks available on CD-ROM and certain extracts have been put on-line on the Internet.

This collaboration has shown that the networking done by about thirty radios can generate the potential to conserve and highlight African cultural heritage. The systematic collection by local radios of historic

monographs of villages has permitted CELHTO to create a "rural radio fund" which is available to researchers.

To know more: <http://www.intermedia-consultants.net/africa-orale>, <http://www.radios-rurales.net>, <http://www.radios-rurales.net>

All the pupils in Togo presented their own villages on the Internet in the framework of a writing competition. The best presentations were then published on the site set up especially for the competition.

To know more: <http://www.aftidev.net/fr/ressources/fiches/fiche.phtml?numero=57>, <http://www.villages.tg>

Nonetheless, it should be recalled that the conditions for access in Africa (the cost and availability of the Internet at local level) restrict the consultation of contents created by and for local populations. Internet applications

As illustrated by the application sheets collected during the survey prior to setting up the AFTIDEV forum (<http://www.aftidev.net>), the types of ICT applications in the area of development have not gone beyond the elementary stage in Africa. They concern projects such as setting up access points, experimenting with e-learning, diffusing local contents over the Internet and implementing pilot projects. For example, more innovative experiences do exist and are formulated by combining "old" forms of communication such as the radio with the Internet, especially in rural areas. An instance of this is the pilot community radio project via the Internet set up by the South African Women's Net network.

To know more: <http://radio.womensnet.org.za>.

Use of the Internet by a credit co-operative

In Cameroon, NISCAM uses the Internet to monitor the prices of raw materials. "NISCAM is a credit co-operative that finances micro-projects.

To know more: <http://www.aftidev.net/fr/ressources/fiches/fiche.phtml?numero=22>

The poor development of e-commerce

The World Bank¹⁶ and the IUT¹⁷ asserted that the development of e-commerce was capable of promoting the presence of developing countries in international trade. Though, whereas the North has seen the development of e-commerce hit the snags of consumer habits and profitability problems, this new form of commerce is still only at its beginnings in Africa.

North Africa (in particular Tunisia, Egypt and Morocco) is at the avant-garde, while countries such as Senegal and Togo are stumbling through the experimental stage. The problems of Africa are above all the modernisation of companies and banks and the protection of bank transactions.

"Christmas 2000", an experiment in e-commerce in Lomé

To know more: <http://www.aftidev.net/fr/ressources/fiches/fiche.phtml?numero=58>

Answers to the challenges of regulating and governing the Internet

The lack of adequate national plans for developing ICTs

Public authorities in many African countries have not set up any kind of ICT development policy. Even when such policies exist, they are rarely applied, since governments devote themselves more to traditional problems such as health, education, etc. Nonetheless, although these constraints are real enough, it is also true that governments do not formulate long term strategies by exploiting the potential that these new technologies can provide. Thus the social actors in the ICT sector seldom benefit from government aid. Most grants come from outside the country further consolidating their dependency on credit.

A few initiatives compensate this lack

¹⁶ Cf. "Liaison francophone" of Friday 29 October 1999, <http://www.francophonie.org/liaison>

¹⁷ <http://www.itu.int/ECDC>

In 1999, the first Forum on Development in Africa (FDA'99) was held in Ethiopia at the initiative of the UNDP Economic Commission for Africa (ECA). In the framework of this summit, the ECA assisted several African countries to formulate national development plans for NICI (National Information and Communication Infrastructures). This initiative, which followed the actions carried out in the framework of the AISI (African Information Society Initiative) set up by the same institution, has permitted the target countries to equip themselves with national ICT development plans or improve existing ones.

The lack of independent regulating organisations

Due to deregulation and the intervention of private players in a traditionally monopolistic sector, the regulation of telecommunications has become a crucial issue. How is possible to ensure fair competition between different operators? How is possible to guarantee a public service in such a way that not only those with the means to pay for it are served? Is it possible to prohibit telephoning via the Internet? Under what conditions can wireless telecommunications, permitting access to the Internet by radio, be exploited? This area is fuzzy and this fuzziness affects the actions taken by private and community enterprises. For example, in Togo the national telecom operator cut the lines of SOFTNET (<http://www.softnet.tg>), a company active in telephony via the Internet.

The lack of independent regulation authorities, apart from countries such as South Africa¹⁸ and Morocco, is at the root of these problems.

The creation of the West Africa Telecommunications Regulators Association (WATRA)

The creation of this association permitted harmonising regulation policies in West Africa in the image of what the Telecommunications Regulators Association of Southern Africa (TRASA) represents for southern Africa¹⁹.

Problems related to the governance of the Internet

This problem exists at both national and international levels. At national level, most countries do not yet have independent organisations to manage domain names. Worse still, in a country such as Benin, there is not even any NIC (Network Information Center) capable of specifying the conditions for attributing the domain ".bj". Thus, businesses and community organisations cannot obtain a ".bj" domain transparently.

On the transnational level, countries such as Gambia are still fighting for the ownership of its domain ".gb". Furthermore, some companies take advantage of this lack of regulation to appropriate the management of certain domain names. For example, Rathbawn Computers Limited (RCL), a multinational present in Australia and the United States and with no relation whatsoever with Africa, proposed that the ICANN, the international authority responsible for managing Internet names and numbers, allowed it to manage the domain name ".africa". ICANN refused this request due to the uproar caused among Africans. However, this proposal could have been accepted since Africa is poorly represented in Internet management organisations (low number of African cybernauts, while ISOC is published and communicated almost exclusively in English).

The non-existence of an African register capable of attributing IP addresses is also a crucial concern.

Towards the activation of afriNIC

Machines directly hooked up to the Internet (host machines) have an IP number and a logical name (host name) that allow their localisation on the Internet. These numbers are managed by ICANN (Internet Corporation for Assigned Names and Numbers), an international non-profit making organisation that entrusts address attribution to regional Internet registers.

At present there are three registers: RIPE-NCC which manages Europe and part of Africa, APNIC which manages Asia and the Pacific, and ARIN for the rest of the world including the other African countries. In this system, it appears that Africa should refer to ARIN or RIPE-NCC to obtain its addresses. This situation does not encourage the emergence of the Internet in Africa or the expression of its diversity within ICANN).

To correct this situation, an African Internet registry was set up in December 1998 on the occasion of the African regional conference on the governance of the Internet held at Cotonou in Benin and a

¹⁸ In South Africa, the Telecommunication Act of 1997 gave rise to SATRA (South African Telecommunications and Regulatory Authority).

¹⁹ Cf. Batik, September 2000, <http://www.osiris.sn>

temporary management board was set up. Unfortunately, AfriNIC is not yet operational as a certain number of steps, such as deciding on a head office and the convocation to the general assembly, remain to be decided before it becomes operational. The creation of AfriNIC has been hailed by all African Internet professionals and its start up should certainly make it easier for the continent to play a role in the governance of the Internet.

A few strategic proposals

These proposals stem from an on-line debate on the social control of new technologies in Africa: the AFTIDEV forum: <http://www.aftidev.net>.

Proposal No. 1:

An infrastructure development plan must be implemented for the South that uses the development of access to the telephone. This development plan, conceived as a programme of international solidarity, should be based on specific finance.

The North could constitute this fund by using mechanisms such as:
the fees collected from the use by Africa of switching infrastructures in the North during communications;
levying a tax on electronic communications²⁰;
levying a tax on domain names²¹;
levying a tax on the profits generated from the new technology related business of the subsidiaries of corporations in the North that operate in the South.

The mechanisms for managing the resources recovered would be adopted in collaboration with international and in particular African civil society.

African governments and international civil society should endeavour to redefine the conditions for Internet connections costs which are unfavourable to Africa.
The Summit on the Information Society of 2003 and the different groups being set up in the framework of DOT Force can be used as the basis for action.
Programmes for setting up infrastructures for community access must be strengthened. The government, the private sector and civil society must use their synergy in this process.
Civil society could bear more pressure to defend universal access against monopolistic positions and the liberal approach characteristic of the telecommunications sector.

Proposal No. 2:

content and multimedia applications

To exploit the potentialities of ICTs, we recommend:

Supporting and encouraging contents that meet the needs of populations (information on health, agricultural development, democratic procedures, etc.) by using every available multimedia technique (sound, image, etc.). Adapted applications must be developed to meet the specific needs of populations speaking African languages.

The Internet should not be the only medium for these contents; easy to produce CD-ROMs should be used increasingly. To this end, we recommend financing research and development programmes carried out in Africa.

Develop bridges between the Internet and traditional methods of communication, such as the radio²². This entails using the Internet in particular to strengthen access to the information of local structures in the framework of their usual activities.

²⁰ As proposed by the United Nations.

²¹ Proposed by Michel Elie in his article "Financing the Fair Internet", <http://www.aftidev.net/fr/ressources/documents/html/elie2.html>

²² The WOMENSNET initiative (<http://radio.womensnet.org.za>) could be used as an example.

Proposal N°.3:

better integration of africa in the governance of the internet

African countries and actors in the ICT sector should work more to integrate Africa in the governance of the Internet. This integration could be speeded up by setting up AFRINIC, an African authority responsible for managing IP addresses and domain names intended for Africa, thus giving birth to an "African" territory on the Internet². Another strategy consists of increasing African participation in the management of ICANN.

By lobbying, African countries must push the Internet Society to opt for multilingual communication. An authority such as the French Language Agency should implement mechanisms for the permanent translation and updating of important texts in this area. This would allow African governments, civil society concerned with ICTs and the French language to play a major role.

III – Community initiatives and proposals for the social appropriation of ICTs in North America

Foreword on the finality and the method:

Drawing the portrait of community initiatives on information highways in North America and taking stock of the social proposals that emerge raises several challenges for the analyst. The first of these challenges is that the cultures of the two countries in this part of the world are different socially, politically and culturally, whatever is said to the contrary. Furthermore, both countries are composed of a complex fabric of sub-cultures of every type and often fundamental differences emerge in social and political practices as well as in the openness of these countries to technological innovation. How can one explain that French speaking Montreal has more in common with California than with other Canadian cities and regions with respect to creating content? The second challenge is the number and variety of community initiatives stemming from a population of more than 310 million, including some of the technologically wealthiest people of the planet. What is more, these initiatives formed one of the cradles of the Internet and were among the first of the utopias the Internet called to mind.

We decided to draw an initial sketch intended, on the one hand, to introduce readers and cybernauts to North American experiments in the social appropriation of ICTs. On the other hand, we wanted this work to be a tool that could be used as a reference for community networks in North America that still work in a scattered way and have little opportunity to stand back and observe this immense collective intelligence that has accumulated over the last ten to fifteen years.

This task is therefore “still in progress” or it can be seen as first chapter of a book open to amendments, criticism and, hopefully, discussions. We have chosen to summarise community experiences by drawing from a wealth of existing documentation and a series of interviews with key people in the history and development of North American community networking. These persons have above all been chosen because they are involved in the use of community networking and we would have liked to have increased the testimonies of all types of users and “experts” in order to revise and enrich the text. Unfortunately, this has not been possible during this first phase. Thus we take responsibility for this summary for which we ask the reader to excuse us for its lack of subtlety, omissions and sometimes-excessive simplifications. Moreover, we have deliberately chosen to avoid footnotes. We prefer to refer interested readers to obtain or download more detailed information from a bibliography and a list of resources available on the Web. These references are also a first step towards a databank that we hope to develop and make available to citizens, users and researchers.

The persons interviewed and the authors used as the main source of reference for the final proposals are: Francine Pelletier, Yves Otis, Manuel Cisneros, Pierre Valois, Daniel Deneault, Jean Sébastien, Peter Miller, Steve Cisler, Doug Schuler, Michael Gurstein, Gordon Pearson, Jamie MacMillan, Richard Cville, Andrew Cohill, Richard Lowenberg, Dirk Koning, Andrew Reddick, Garth Graham, Bill Saint Arnaud, Marita Moll, Leslie Regan Shade, Andy Carvin, Philippe Tousignant.

NB: You will find the analysis made by Alain Ambrosi in the “dossier for debate” as well as this booklet, soon to be published by Editions Charles Léopold Mayer.

Proposals from community networks

Introduction:

Given the myriad community initiatives that have flourished over the last ten years in North America, it could be expected that Canadian and American civil society would make many different proposals on the social appropriation of ICTs and their democratic use. Systematic research has highlighted a large number of proposals that cover the whole gamut of challenges to private and community life. These proposals range from recommendations on government policies and strategies and the role of

community networks to very specific proposals on the protection of private life, e-commerce, social entrepreneurship, etc.

Put end to end, these recommendations could appear to be the start of a social project to be carried out by civil society for the digital era. The guidelines of this project would be characterised by democracy based at local level and decentralisation, the constitution of public arenas for discussion and action completely independent from commercial and government rationales, the expression and participation of citizens in a renewed and more participatory democracy, and the constitution of creative partnerships between different social actors. However, we should beware. Although these recommendations express a social rationale of participation and fairness that could constitute an alternative to the dominant system, they are rarely presented in the form of a coherent whole capable of establishing a program. What is more, there are very few spaces for discussion and even fewer political bodies in which these proposals are genuinely debated to point of forging them into a truly alternative project.

The great lyricism and declarations made at the beginning of the freenets, some of which were authentic social manifestos, have been carried away by pragmatism made necessary by the simple need for survival. Moreover, nobody has been able to formulate more than an outline of a strategy. Even today, very few of the supporters of "community networks" are interested in the governance of Internet or the global political issues of communication. National organisations that group community projects (AFCN, CTCnet, Telecommunities Canada, etc.) generally focus their activities on networking information and providing certain services to their members. Not until recently have certain persons got together and attempted to carry out audits and list the solutions provided by the CNs that have succeeded in lasting. A larger and more political vision will emerge through the meeting of new digitised community networks with social and political action networks, research groups and lobbies. In both the United States and Canada, this type of debate remains confined to the realm of "progressive" activists and intellectuals where a wide range of ideas, from "liberal" to radical" can be found. These activists, some of whom have but recently joined the world of new technologies, often belong to consumer protection groups and other organisations in the community milieu and social economy or, in most cases, to university research teams, do not feel represented by the political parties in place and have little voice in national political debate. Their activism and methods of action are fragmented. Very few of them have an overall view capable of encompassing all the dimensions of a genuine strategy. To our knowledge, only the Quebec social movement in the form of "Chantier d'économie social" (Social economy workshop) is tentatively beginning to join in the claims and recommendations specifically related to ICTs.

That being said, it is difficult to take into account the variety and wealth of all the proposals, however dispersed they are. Moreover, we have grouped the recommendations from both countries according to the subjects dealt with most and that represent the debates in progress. We in no way pretend to be exhaustive. Many of the questions dealt with have been left to one side and, naturally, the author's choice, subjectivity and personal views must also be taken into account. Two things must be noted from the outset: community networks take little interest in the governance of Internet; in spite of some interest and references often made to what is done internationally, opening out to experiences elsewhere than America is very recent.

1. Access and participation in policies

1) A coherent and substantial national policy for public service:

The government should formulate a national policy that considers access to the Internet and its content as a communication service in the public interest for both individuals and communities;

By consequence it should set up a legislative and regulatory framework, make available universal access and ICT navigation programs, and carry out public initiatives to inform and communicate in participation with citizens.

The legislative framework should provide for monitoring and control mechanisms in which groups and civil society representing the public interest are represented equally.

2) Permanent updating of the definition of essential public services based on the real needs of the population:

Definitions of essential services should be both precise in order to define the responsibilities of different social actors (the government, private enterprise, citizens), but sufficiently flexible to adapt to technological and social changes.

Thus today, services considered as essential are access for the general public to technology and the Internet, adequate and continuous training in order to ensure good use of it and the guarantee of varied content corresponding to the needs and hopes of different categories of the population. These essential services should recognise that the public is not only a receiver and consumer of information but just as much a potential producer and that policies and programs should encourage and promote the production and diffusion of information and knowledge provided by individuals and community groups.

The regular updating of definitions and standards for essential services should follow the evolution of the population regarding information and communication services affecting economic, social, cultural and community life. This study of needs should be carried out by an organisation in which community groups participate.

3) Recognise and encourage the status and role of organisations and community groups in the democratisation of the information society:

Recognise and promote the creation of public forums for discussion and independent action free from market and government pressures as being essential for democratic life and social cohesion.

Recognise the central role that organisations and community groups play in creating these non-commercial public forums.

Recognise the concrete and unique role of social utility played by organisations and community groups regarding access, networking, training, creating contents, and creating ICT related jobs.

Include by consequence this third sector in legislation and programs not only as a recipient but as a fully fledged actor, by taking the necessary institutional and financial measures.

4) Greater co-ordination between and integration of national programs aimed at the public and community organisations:

In order to encourage community approaches and greater efficiency, we recommend better co-ordination (between different ministries at federal level and between the different levels of government) aiming at access and community networking by integrating and promoting partnerships between organisations (libraries, schools, associations, community groups, etc.) while taking into account the competency and expertise of each and all.

5) Substantial and sustained financing of community projects and initiatives

Community projects and initiatives for access, networking, training and creating content must receive sufficient, continuous and co-ordinated financing from different levels of government (federal, provincial-state, municipal) to ensure their long-term viability. This finance should include basic ensured and continuous finance that recognises the socially useful role played by organisations whose main task is to appropriate ICTs and group them at regional and national levels; guaranteed financial commitments to community organisations made on the basis of long-term contracts with schedules for deliverables and evaluations made as a function of national standards set jointly; purchases and contracts for services made between governments and these organisations; and tax credits and other subsidies to create new enterprises and jobs by social economy organisations in the sector.

Sources of income to guarantee this finance should come from:

A – a specific fund composed of a tax on communication and telecommunications companies.

Different systems exist that could be used and generalised: The E-rate specifically created in the United States for Internet connections (1 to 2% of revenues up to a maximum of \$2.5 billion per year); financing of community television (not currently obligatory) by 2 to 5% of the revenue of cable TV providers in Canada; a fund for financing local "public access media" ("PEG") in the United States;

B – The extension to the organisations of programs that exist for other sectors and categories:

At present, the E-rate in the United States is only applied to schools, libraries and rural centres. The "Brancher les Familles" (Connect the Families) program of grants given to the poorest families in Quebec could be extended to non-profit making organisations and co-operatives.

Tax credits given to private companies to promote e-commerce and inter-company networking could be adapted to social economy enterprises specialised in ICTs and support their activities to create community content.

Funds reserved for training personnel provided for by the laws of certain provinces-states.

C – Self-financing of organisations by the sale of certain services to the community at low prices it being understood that this additional revenue could only pay for a small part of the costs of renewing and maintaining the organisation's infrastructure and operation.

D - The creation and encouragement of partnerships between private enterprise, different levels of government and the social economy sector, whose expertise and voluntary work are recognised as contributions.

6) Mechanisms for public consultation and the creation of monitoring committees

Set up mechanisms for permanent consultation to formulate new policies and new programs by public consultation, taking as example parliamentary commissions, and by ad hoc work groups in which every major social actor (government, private sector, civil society) is represented on an equal basis.

Support the development and existence of permanent observatories in partnership with public and private research institutes, to monitor in particular the evolution of needs regarding technology, training and content.

Support setting up observatories of practices and appropriate uses according to the different sectors in which community networks are involved (rural areas, youth, women, handicapped, etc.)

Formulate a communication strategy aimed at setting up permanent mechanisms for informing and making the public aware of the different services available, different modes of participation and, more generally, the major challenges of the information society.

7) Cyber-democracy and cyber-governance:

Definitions and principles:

Internet's potential for interactivity far surpasses that of any other form of communication, radically transforming interactions between persons and relations between the government and the citizen. This leads to greater transparency and participation, in turn leading to a renewal of democracy.

Cyber-democracy should be understood in the wide meaning of the term as the use of democracy by active participation in dialogue and decision-making in a large number of areas of public interest and in civil society, as well as in territorial and national debates on political action. It is the duty and responsibility of governments and citizens to lay the foundations for participation in democratic life within organisations and in the public arena.

Cyber-government and on-line elections

Cyber-government should not just be limited to putting administrative and governmental information on-line or making possible participation in on-line elections. On the other hand, participation by citizens should not be limited only to access to information, administrative transactions and on-line voting.

Before coming into general use, experiments should be carried out with on-line elections of limited scope to avoid the exclusion of a large part of the population, the absence of genuine debate and other obstacles to participation due to poor evaluation of the potential of this technology.

Observatories specialised in cyber-democracy should be set up.

Pilot experiments in community participation via ICTs should learn from pertinent examples such as that of the city of Porto Alegre in Brazil.

8) Protection of personal information:

The confidentiality of data and the protection of the rights of the individual (as citizens and consumers) and communities must be guaranteed by legislation and regulations.

Standards for protection with respect to –commerce should conform to the following guidelines:

Equivalence and harmonisation: E-commerce should not be treated different from other forms of commerce; E-commerce consumers should not be protected less than from other forms of commerce.

Laws on the protection of the consumer should be revised to include e-commerce and they should be harmonised at national level.

Transparency and efficiency: consumers and enterprises should have easy and fast access to regulatory standards which, in order to be efficient, must be equitable, practicable and easily applicable.

Conformity at international level: Internet's global nature requires coherence and harmonisation of legislation at international level. The orientations and standards formulated by the OECD and other international organisations should not, however, compromise laws enacted at national level.

9) Education and Training

Access and participation in knowledge

Awareness and education campaigns and training in the protection of personal information should be an integral part of national strategies and policies and be part of education for citizenship in the information era.

A few principles and definitions:

The digital divide must be considered in its widest meaning as the difference that exists between users in the *twofold capacity to access and contribute to the production of knowledge conveyed on the Internet*. Access to knowledge means benefiting fully from information that circulates in the Internet and make use of it as befits one's own culture, capacities, needs, interests and aspirations. Contributing to knowledge means participating fully in the sharing of information by dialogue and the production and diffusion of one's own information.

To narrow this divide, policies and programmes must consider solely technical access (infrastructures, individual and collective access points, hardware, software, and elementary user technical competencies) as necessary though insufficient. They must take into account many economic, social, educational, linguistic, physical, cultural and gender barriers, etc. that prevent users from accessing and contributing to the content conveyed and its appropriate use.

Access programmes must combine technical connectivity, basic technical training, education and continuing education as well as the creation diverse, pertinent and enriching contents adapted to the interests and needs of varied audiences and publics.

Access policies must avoid aiming at only individual access thereby encouraging passive consumption of commercial and public information. On the contrary, they must enhance and promote both individual and collective participation, in order to ensure the most active possible use of the interactive potential provided by ICTs in social, economic and cultural fields as well as in democratic life.

The basic criteria of such an approach are great diversity of public access points, encouragement of setting up local and topical networks, adapted training and varied content.

Access programmes must be designed with the long term in mind and be revised regularly as a function of technological progress and uses by taking into account social as much as economic relevancy, needs, appropriate training and the budgets required for their continuation in different socio-economic, geographic (urban/rural), generational and cultural contexts.

10) Installation of infrastructures:

Special efforts must be made to install infrastructures so that remote rural areas, often still lacking adequate communication resources, can be connected. Programmes should encourage and facilitate setting up shared networks and the grouping of public institutions, access providers and community networks.

The installation of broadband/high speed infrastructures should be done according to guidelines that emphasise the social finality mentioned above, via public consultations in which community interests are represented and taken into account.

Encouragement, support and publicity should be given to initiatives taken by users and community networks at local level (municipalities, rural counties, urban districts) to be defined. They should have their own independent optical fibre based infrastructures with broadband.

According to their different needs, community networks should decide on the systems of co-ownership or "à-la-carte" networks, on the architecture local of local infrastructures, connections with Internet service providers, and links with similar independent networks. Such systems, which place the interests and hopes of citizens above those of telecom companies and service providers, do exist. Many examples of this type of approach exist and could be developed systematically as proposed by the Canadian firm CANARIE, with its "black" fibre "à la carte networks".

Regarding broadband in the United States, we recommend a regulatory framework to prevent newly formed conglomerates such as AT&T and AOL-Times Warner from censoring both content and the choice of service provider capable of transmitting it.

11) – Access policies and programmes:

Programmes intended for disadvantaged families:

Programmes for free or subsidised access to Internet connections for the most disadvantaged families should be created or existing ones monitored, making sure that they are always associated with free training programmes.

These "Brancher les familles" type programmes in Quebec and its equivalents in other Canadian provinces and American states should become permanent and provide for the necessary renewal of computer hardware and technological progress (high speed, broadband).

Programmes intended for public access points and community organisations:

Public access points should be diversified and installed durably to serve as well as possible the different sectors and categories of the population by offering a wide choice of place and time. Access points are not only necessary in schools, libraries and rural centres, but also in community organisations and cybercafés.

Free connection programmes based on the type described above should be offered to voluntary non-profit organisations and co-operatives.

Recurrent finance should be granted to these organisations to permit them to appropriate these technologies by making the necessary adjustments at organisational, economic and educational levels on a permanent and durable basis.

12) – Training programmes

Technical training, lifetime training and training for citizenship:

ICT utilisation training courses should be given in the framework of "lifetime" training programmes that permit persons and communities to understand the ever-increasing complexity of the information society and permit them to fully enjoy their citizenship and creativity. This new education system combines the acquisition of general, technical and social knowledge and competencies at every stage of life and promotes education for citizenship that gives precedence to "knowing how to be" rather than to "knowing what to do".

Training at variable and adapted dimensions:

Training in the uses of ICTs should consider a wide variety of places for such training (educational institutions, libraries, community groups, cybercafés, access and specialised learning centres, companies and workplaces); diverse contents and training methods (e.g., school type, training adapted to target publics); and diverse trainers (teachers, non-specialised and specialised teachers).

Recognition should be given to the unique expertise developed by community groups and organisations in the area of teaching the use of ICTs in poor districts. The different "customised" training courses adapted according to the needs and capacities of different types of public

(disadvantaged groups, the illiterate, young outcasts, itinerants, etc) are generally carried out in the framework of participatory community education and converge with lifetime education.

Education support programmes should be set up by providing basic finance to community organisations specialised in training and by calls for tender and long-term contracts given to these organisations.

Promote synergy and creative partnerships for training between different actors, education institutions, organisations and companies.

13) – Creating content

Government programmes must ensure the diffusion of rich and varied content not determined by commercial and administrative imperatives. The programmes must ensure content diversity adapted to the realities and needs of the different groups and categories of the population.

The basic principles of content creation and development programmes should:
be based on studies of the needs of groups and categories (the elderly, cultural communities, the jobless, the young, the handicapped, etc.);
promote and support tenders for the creation of original material and the digitisation of already existing contents on other media (written, video, etc.);
support the compilation of databases and the online diffusion of innovations and contents with the standards of catalogues and specialised search engines.

The programmes should encourage the creation of contents of a local nature just as much as topical portals and content which contribute towards merging knowledge and expertise in given areas of activity or topics of social utility: social economy enterprises, women's groups, older children, rural milieus, consumer defence organisations, community health, etc.).

Financial resources and technical expertise should also be used to promote the creation and implementation of low cost technology (hard and software) adapted to local needs, low income populations and to certain categories of the population (the handicapped, etc.) (Cf. examples such as those of Chebucto Suite in the New Hebrides in Canada).

They should also contribute towards creating a culture of freeware to encourage creativity and fight dependency on the technology and content provided by monopoly groups.

Lastly, they should encourage the use of commercial software with free source codes in the public access and training programmes set up, especially in schools, research and in the development of such software, their diffusion and appropriate training.

2. Access and participation in innovation:

1) – The capacity for societal innovation:

As we have already seen, some community networks have survived the tidal wave of commercial Internet and demonstrated a capacity for innovation in terms of technology, organisation and content development. They stand as credible bodies capable of inventing and proposing dynamic and novel forms of networking at local level that call for partnerships between different social actors. Below, we summarise a few concrete proposals based on organisational experiences and certain audits that have been carried out.

All these proposals encourage the creation, maintenance and control by citizens of public, non-commercial, independent and co-managed spaces; the aim of greater autonomy in controlling technologies, ensuring plurality in the creation of original content, research and monitoring, the setting up of social economy enterprises in the area of ICTs, and new institutional and organisational forms based on dynamic partnerships. It should be noted that for many of these innovators, participation in communication policies at both national and global levels is rarely mentioned as such. They appear to focus on the local level and the societal change they propose above all occurs via demonstration.

2) - The role of Community Networking:

(Below we reprint the reflections of Andrew Michael Cohill, the chief co-ordinator of Blacksburg Electronic Village, which we feel sums up many of the hopes of those involved in community networks in the United States.

- Create and maintain non-commercial public spaces on the Web
- Offer all the education services necessary for a democracy of knowledge to local leaders, teachers, librarians, the young and entrepreneurs;
- Support initiatives for local economic development centred on information to satisfy the increasing demand for jobs in this sector and take into account that nearly 90% of the new jobs created are created by small and medium sized businesses;
- design, develop and own one's own telecommunication infrastructures, including the pipelines (cables), dark fibre, common premises, a local data exchange;
- Create an information resource and consultation centre on technology at the service of the community;
- Have an independent system of community publication and diffusion that uses the Internet to diffuse texts, voice, television and multimedia.

Challenges for community networks:

- They must quit their isolation and link up with social movements. They act pedagogically and co-ordinate debates on proposals for alternative policies in the area of communications and the social appropriation of ICTs;
- Develop partnership networks that cross geographic borders (between localities at national level and between countries) and technological partnerships (with the press and electronic media);
- Create and diffuse institutional systems of community appropriation at local level;
- Create centres for public access to a mix of community media that combines the written word, electronic media (radio and television), computers and Internet as well as data and documentation banks in which individuals and community groups can produce and diffuse their own production.