

The poor's fragmented network:

Setting up a decentralised cohesion fund

The fragmentation of communication infrastructures in Africa – for example the railways – has left the continent with a largely incomplete network of interconnections. This makes it virtually impossible to achieve the objective of space integration. Fragmented networks were implemented as means to control trade and ensure the export of raw materials leading to today's extraverted economy. This intangible communication infrastructure needs to be properly interlinked, especially in rural areas, but has never really received adequate funding.

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The divide in infrastructure between north and south and between the EU and the ACP countries is equalled only by the digital divide. Some official development agents have not always shown foresight or looked favourably on real freedom of information, knowledge and learning. It is mainly under these inexplicit constraints resulting in virtual fragmented networks that new information and communication technologies (NICTs) have gradually emerged in the "southern" countries.

In the poorly connected countries (PCC), deficiencies in infrastructure also have an effect on the production of information as well as the management of the content. But it is in the interest of influential groups to organise the information publicly available on the web. The free availability of information and knowledge led to the organisation of information that should be available to all in a readily digestible, easily assimilable form. Access to value-added information, which requires substantial investment or allows delays to the information catch-up process, follows the laws of supply and demand. It is freely exchanged for the market price.

Poor connections and poverty go hand in hand

This also applies to the NICTs and the content conveyed. But because they are unable to access or use the available information to meet their needs, most people in the world are actually excluded. In general these people are the most vulnerable in terms of income and education. Their exchange of information is primarily an oral-based communication system. So if we are really to help the poor, the cost of voice transmission services must be considerably reduced. The poor – whether individuals, companies, countries, or even regions – are ultimately doomed to have access to and to manage only poor value added information. The information available on the internet, retrieved with increasingly powerful search engines, can open the way for a kind of "information pollution". It can lead to confusion and reduce awareness of the real opportunities offered by the internet.

At the world telecommunications development conference in Istanbul in March, the International Telecommunication Union proposed to "connect up every village in the world by 2005". This proposition cannot succeed if making wireless technologies and voice communication available and affordable is still considered as a marginal issue.

At the end of 2000, 82 per cent of the world's 350 million internet users belonged to high-income countries, which represent 15 per cent of the world's population. In regional terms, Africa accounted for just 1.2 per cent, the Pacific 2.2 per cent, Asia 28.6 per cent, Europe 32.8 per cent and the Americas 35.2 per cent of internet surfers¹. As regards worldwide telephone connection, 58 per cent of people living in high-income countries had a land-line and 69 per cent a mobile telephone. Disposable income is at the root of the digital divide.

Despite the many potential opportunities, the facts show that the distribution of NICTs highlights the on-going marginalisation process. A number of factors act as a barrier not only to the circulation, but above all to the local production and assimilation of information shared at world level. These include a low general level of education, poor levels of savings and income, and inadequate infrastructures. Somewhat undemocratically, only an elite minority has access to the infrastructure in low-income countries, particularly in the ACP countries.

The challenge of universal access for communities

The internet is the product of two technological innovations developed in the 1980s. It needs widespread access to micro-computers and the intensive use of digital technology. This has given rise to a "technological leapfrog". The digital revolution basically relies on the use of electricity as a medium for the transmission of sound, images, text and IT solutions to anywhere in the world. It uses high band-rate distribution infrastructures – the notorious "information superhighways" – made up of local and global networks with or without the use of cable. Computers coupled with telecommunications cannot operate without electricity, particularly low currents (conversion to signals allowing the rapid circulation of information). High currents are needed for the generation of light, heat and power.

Here again the divide is wide. In 1998, electricity production in Sub-Saharan Africa amounted to 270.4 billion kW against the EU's 1,866 billion kW. NICTs are internationally defined as "all the economic sectors of activity that contribute to the display, processing, storage and transmission of information by electronic means"². So it is significant that in poor countries little investment is channelled into the manufacture of equipment and the data processing services (electronic data exchange). Moreover, according to the United Nations³, most of the products for "the display, processing, storage and transmission of information by electronic means"⁴ are not produced and marketed in poor countries.

These countries do not have sufficiently reliable electronic networks either. The absence of a physical network means that they have had to adopt a policy and strategy based on the availability of "interactive terminals" and on information content for collective use, at affordable prices. The conversion of public "telecentres" into "infocentres", and even into community centres for the circulation and generation of information, appears to be the way forward. It can only support the development of a "proximity economy". There is still a need to ensure a regular electricity supply. At the moment, information content and its production cannot really take off in rural areas, home to more than 70 per cent of the population in poor countries. We need to make a better assessment of the importance of the opportunities offered

The digital divide between rich and poor: selected statistics

Country	National income/hab. in \$ US 1999	Electricity consumed/inhab. in kWh 1998	Mobile phone/1000 inhab. 1999	Cost of 3 min phone call to USA in \$ US 1999	Personal computers/ 1 000 inhab. 1999	Internet access/ 10 000 inhab. July 2000	Registered Internet users 1999
European Union							
France	24 170	6 287	366	1.00	221.8	167.11	537 000
Sweden	26 750	13 955	583	0.90	451.4	703.91	366 600
Africa							
South Africa	3 170	3 832	120	..	54.7	43.12	182 000
Benin	380	46	1	6.90	1.5	0.04	1 000
Cameroon	600	185	1	3.39	2.7	0.01	2 000
Kenya	360	129	1	11.17	4.2	0.32	3 500
Madagascar	250	..	1	11.16	1.9	0.36	800
Senegal	500	111	9	4.48	15.1	0.51	3 000
Zimbabwe	530	896	15	2.81	13.0	2.61	2 000
Caribbean							
Haiti	460	33	3	7.10	0	0	600
Jamaica	2 430	2 252	56	5.20	43	2.26	6000
Pacific							
Trinidad and Tobago	4 750	3 478	30	3.30	54.2	41.88	3 000

Source: From the World Bank, World Development Indicators, 2001, pp. 14-17, 302-309 and the International Telecommunication Union, *World Telecommunication Development Report 2000*.

by the internet and the shortfalls to be made up. Also there are not enough managers of information content to satisfy social demand. It is absolutely essential that community access becomes more widespread.

Support to interdependence supposes a new structural financial facility

It is only through new forms of solidarity based on social enhancement that the poor countries, particularly the ACP countries, will finally be able to enjoy the widespread availability of the knowledge and learning they need. This qualitative leapfrog heralds a change in terms of inequality at world level, where, soon, nobody will be able to sell, buy or exchange effectively without the internet. The winners are likely to be those who have not delayed in getting connected to the network, meeting their need of proximity.

Decision makers of countries with fragmented networks should be able to achieve their dual target of promoting better awareness of the imperfection of the local market and the integration as well as the complementarity of regional economies. This is the case even though they are based on a voluntarist policy of integration of training and culture on the one hand, and community access to electricity and to NICTs on the other. Development and management of national capacities to the benefit of civil society as a whole will once again be possible thanks to a new emerging decentralised form of cooperation⁵.

In the context of cooperation with third countries, and according to the provisions of the Single European Act, the EU could envisage setting up a decentralised structural fund, at local community level, to strengthen cohesion between electricity, NICTs and information content in the ACP countries. What is at stake is the future of an emerging movement towards reinforcing the people's ownership of the web, promoting the exchange of value-

added information and knowledge. This is a necessary condition for success in alleviating poverty, one of the world's priorities stated in the United Nations Millennium goals. ■

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1. ITU, World Telecommunication Indicators Database, 2000.
2. Didier Lombard, Patrice Roussel, Sylvie Dumartin, Raymond Heitzmann, Marc Aufrant, *Rapport sur l'observation statistique du développement des TIC et de leur impact sur l'économie* [Report on the statistical observation of the development of NICTs and their impact on the economy], Conseil national de l'information statistique, No. 63, February 2001, INSEE stamp D 130: www.cnis.fr
3. United Nations, International Standard Industrial Classification, revision 3 and UNIDO Yearbook on Industrial Statistics, Vienna 2002.
4. Consensual, but not official, definition from the OECD.
5. Yves Koué Amaïzo, *Pour une nouvelle coopération décentralisée*, in *Afrique Education*, n°104, 16-31 mars 2002, pp. 29-31.



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