

The role played by the informal economy in the appropriation of ICTs in urban environments in West Africa

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Abstract: The "informal" economy concerns activities directly linked with the most contemporary developments. Those activities revolving around local development of ICTs are demonstrations of a "paradoxical invention of modernity" [JF Bayart 1994] with regard to the classical universalist model of modernization spread by the West. After a brief explanation of what is meant by "informal" in various disciplines, it will be shown how the development and appropriation of ICTs in African cities gives rise to a proliferation of new service activities which are embedded in the urban fabric, adapted to the low income level of the populations, and generate more or less qualified jobs which fall either totally or partly within the scope of informal practices. Finally, the proliferation of this "other economy" as the expression of globalization will be studied.

Key words: ICTs and the informal economy – West Africa - Forms of appropriation

Introduction

To study the role of the informal economy in ICT appropriation in Africa is to reveal a situation that runs counter to the western standards and model that have designed and shaped ICTs. In the light of the specifics of the countries of the southern hemisphere, we defend the idea that the question of communication network technologies must be placed in a global context, that of the "paradoxical modernization" relating to the scale of the informal economy. Between the developed world and developing countries, there is a difference not only in network and service development, but also in terms of forms of modernization.¹ This difference comes from the degree and forms of interconnection of the various territorial networks. Telecommunications, including internet, cannot be studied alone, without taking account of the material and socio-cultural context. The development of these technologies and their appropriation by society take place in singular spaces and in particular ways that relate to the lacunary nature of the territory, to the weakness of States that are often devoid of the appropriate financial and human resources, and to its corollary, the scale of the "informal" economy.²

The notion of the "informal" sector, a term coined by Keith Hart [Hart, 1995] in 1973, empirically highlighted a dimension of a phenomenon that was to take on considerable proportions in undeveloped societies. Lautier, De Miras and Morice define the informal sector "as the acts (or sets of acts) in the economy and market that escape from the official fiscal, social, legal and statistical record standards" [Lautier, De Miras, Morice 1991].

"The informal" constitutes a dominant socio-economic *modus operandi* in the countries of Africa to the south of the Sahara. It provides essential functions in employment, production, income distribution, satisfying needs, training young people and cultural exchanges, etc.

It is an ever-growing phenomenon. In the modern economy construction model developed in the 1960s and 70s for the LDC, the informal sector was assimilated to the traditional sector and was seen as being destined to disappear gradually as it was absorbed by the modern sector. But the opposite has happened, as the informal sector has expanded and extended its radius of action, suggesting that it is

¹ Although the informal sector does exist in developed countries, it does not take over the working of the whole. This position goes against the dominant view that tends to deny the existence of the differences between North and South due to the failure of the dependentist, developmentalist and culturalist explanations, referring to the countries of Asia and Latin America (cf. J. Lévy, 1999, 229).

²We have developed this hypothesis by analysing relations between the constitutional State and networks in 2001, then how ICTs are compatible with the informal economy in 2006. The purpose is to specify the place and the role of this dominant type of economy in the ways in which ICTs are spread.

set to continue to represent a large proportion of the working population on a sustainable basis. The reasons for this are complex. The poor economic performances of the postcolonial State model, and the mixed outcome of the resulting structural adjustment policies, have combined their effects to marginalise and pauperise large strata of the population who have therefore turned to alternative strategies built around multiform activities.³

In 1990, the informal sector came to represent three-quarters of the non-farming working population of sub-Saharan Africa, compared with more than two-thirds ten years earlier. In the eight countries of the UEMOA (Benin, Burkina Faso, Ivory Coast, Guinea Bissau, Mali, Niger, Senegal and Togo) the informal sector represented between 45 and 75% of an estimated GDP in 1998 of USD 27,000,000 [Kante 2002].⁴ In 2000, according to the estimates of the International Labour Organisation, the informal sector represented 61% of urban labour and was probably behind more than 93% of the new jobs created in the course of the 1990s [Kante 2002].⁵

The "informal" economy concerns activities directly linked with the most contemporary developments. Those activities revolving around local development of ICTs are demonstrations of a "paradoxical invention of modernity" [JF Bayart 1994] with regard to the classical universalist model of modernization spread by the West.

Having explained briefly what is meant by "informal" in various disciplines, we shall show how the development and appropriation of ICTs in African cities gives rise to a proliferation of new service activities which are embedded in the urban fabric, adapted to the low income level of the population, and generate more or less qualified jobs which fall either totally or partly within the scope of informal practices. Finally, we will take a look at the meaning of this "other economy" on a more global scale.

1 – Informal sector and ict: the different approaches

The new information and communication technologies are a major driving force behind the growth of the informal sector. The large foreign companies that have invested in telecommunications, either by taking over the historic telephone companies such as Sonatel in Senegal or investing in mobile telephony, have service outsourcing and subcontracting strategies designed to achieve flexibility and reduce labour costs, transferring the cost of fluctuations in demand and limiting union power. The effect of subcontracting has been to encourage informal employment which often goes hand in hand with growing insecurity and a decline in job protection for workers.

According to Yves André Fauré⁶, the definition of the informal has been the subject of unending and unproductive polemics in social sciences since the 1970s, depending on the different points of view. The aim here is therefore to go quite simply to its essential traits in order to achieve a better understanding of how ICTs fit into this issue.

The term "in-formal", without form, emphasises a political-legal point of view.

For the legal expert, this is an operating mode that is in opposition to that of the so-called modern or formal sector operating in accordance with the standards of law. This law was created and developed in the western countries and spread through the colonies and then independent countries, but it is universal in nature and its principles are therefore valid everywhere and for everyone, while its forms may be more or less adaptable.

³ The failure to create a constitutional State can be explained by causes linked to colonial policy, and to the way in which the model was applied, to inequalities between people, to the diachrony between territorial construction and social evolution, to a taxation policy devoid of general involvement of the population, hence the inability of the new leaders to finance institutions and modernisation while the national private sector is embryonic. See Annie Chéneau-Loquay, "Les relations entre l'Etat le droit et les réseaux sont elles indispensables dans le processus de modernisation", *Terminal*. 2001.

⁴ Based on a study by Jacques Charmes quoted in al ILO report in 2002 (see reference in the bibliography)

⁵ Kanté S. Le secteur informel en Afrique...vers la promotion d'un travail décent...

⁶ Yves André Fauré is one of the specialists of this question. See "A respeito de alguns desafios contemporâneos da informalidade económica., Aproximando a África Ocidental e o Brasil" 2005.

In contrast, the informal is the abnormal, operating outside the laws and/or ignoring them. Informal therefore applies to activities that are not or not fully registered, and are therefore difficult to verify for the public authorities that are responsible, in principle, for applying the law.

In a study for the West African Economic and Monetary Union (UEMOA) conducted in 2002 in the main cities of seven countries of West Africa (Benin, Burkina Faso, Ivory Coast, Mali, Niger, Senegal and Togo), the informal sector was defined as all production units (IPU) without an administrative registration number and/or formal written accounts. The registration rates of the IPUs in the various official registers were very low, especially registrations with the tax administration (less than 1% of IPUs) [Brilleau et al 2004].

For economists, the informal sector is characterised by a certain number of criteria, with that of size being essential

According to the study by the International Labour Organisation [Kante 2002], “Originally, the informal sector referred to small-scale activities that were essentially intended to provide subsistence income for the new city-dwellers created by the particularly large rural exodus in the 1970s caused by the cycle of climate difficulties, drought and even desertification, notably in sub-Saharan Africa.

The notion was then extended to take in all the small activities which, due to their traditional origin or their recent or spontaneous character, have grown and been consolidated with the endemic unemployment that has been growing constantly in the various African countries facing economic crisis and the social consequences of the structural adjustment programmes launched on the continent in the 1980s and 90s.

Informal-sector workers or operators work for themselves, or within a framework of friends or family, in activities that share the following general characteristics: modest capital, little qualified labour, limited access to organised markets and technology, low and irregular income and mediocre working conditions. In other words, these are activities that lie largely outside the scope of public statistics and regulations, and do not benefit from the normal welfare protection systems”.

According to the study by the West African Economic and Monetary Union [Brilleau et al 2004], 45% of IPUs are in “commerce”, 28% in the industrial branch and 26% in services. The construction and public works sector alone represents almost 20% of industrial IPUs, while informal retail sales outside stores dominate in commerce (89%). In services, the “other services” (hairdressing and other personal services, etc.) represent 46%, catering 23%, repairs 16% and transport 15%.

For Yves André Fauré, no single definition or criterion is truly satisfactory because it cannot cover the whole reality of what is being studied, and does not help to make a full and clear distinction between the informal and other forms production and barter in the economic space.

In African cities, the organic intertwining of formal and informal activities is practically constant, whether in commercial or subcontracting relations or in the movement of workers from one sector to the other. Many activities classed as being formal in fact conceal informal pockets. Many activities said to be informal are not entirely so. Most trades people and shopkeepers have fixed premises and pay trading fees. Their failure to comply with the regulations mainly concerns social and fiscal matters, and the conditions in which they conduct their activity. Totally informal companies are very rare and usually concern itinerant salespeople without fixed premises [Faure 2005]. In the ICT sector, this is the case of itinerant sellers of mobile phone cards offering the different brands in the street.

For anthropologists, the informal is another economic and social modus operandi

“Popular economy” or “small-scale production” are terms sociologists tend to use to qualify the informal economy. Some authors see these activities as “an economy of solidarity” based on traditional forms of sociability [ENDA, N’diaye M., Abdoul M.], while others are wary of a cultural approach that might overvalue this sector when its contribution to development is difficult to perceive [Meagher 1996]. Philippe Engelhard establishes a relationship between poverty and exclusion from the modern economy: “Hundreds of millions of men and women have neither the competitiveness not the standardised knowledge required to fit into the networks of the modern economy. It is in this way

that they are poor and excluded from modernity....I use the term popular economy to refer to these barter economies that are informal in principle, but are in fact structured by the social bond and the will to survive" [Engelhard, 1998].

Some researchers and media in Senegal tend to set great (or even too much) store by the informal sector as a genuine culture that is spreading. This does not concern only the popular economy of the poor, but also another powerful network economy, that of business men who are often illiterate and are backed up by influential associations and support from the religious and political authorities alike [Gueye 2002]⁷[Copans 2000].

In Senegal, the informal sector is said to be the "driving force of the economy, with 60% of gross domestic product, and the biggest employer in the country" [Bangre 2003]. It enjoys great political influence thanks to effective organisation in the form of unions such as the *Union Nationale des Commerçants et des Industries du Sénégal* (UNACOIS). This association claims to have 40,000 members, has refused to pay VAT and has negotiated a special tax status.

Its permanent secretary describes the sector as being very varied: it comprises a lot of small activities that just allow families to get by (such as repair work for the men and transforming and selling fruit and vegetables for the women), and have low productivity levels compared with other informal companies (such as the foundries manufacturing pots, pans or kitchen utensils). He also includes in the sector some companies that have established a place for themselves on the international stage, such as the *Comptoir Commercial Bara Mboup* which has been in existence for 25 years, imports electronics equipment and works in partnership South Korean firm Samsung. In 2003, the company is said to have had income of 20 million CFA Francs.

In the opinion of the author, this is therefore not merely a subsistence economy, but a powerful sector that is flexible, attractive and dynamic, and is both a partner and competitor for legal companies.

The only point all these firms have in common is that they are not legally recognised, as they do not pay tax or social contributions.

Although the working population of Senegal is thought to be in the region of 4 million people, only 250,000 of them are registered with the Social Security, while the others are informal employees. The figure would suggest that most companies "do informal business"

Senegalese sociologist Malick Ndiaye goes even further. For him, this proliferation of the informal goes hand in hand with the creation of a new development ethic that has replaced the "white collar" view: the "moodu moodu" or spirit of enterprise. This is the ethic of the self made man, the archetype of which is a young person arriving from the country who has done all sorts of odd jobs before going into business and getting rich. They are often members of the Mouride brotherhood and combine religion, business and mobility [Ndiaye 1998].

2 –The ICTs sector: an informal economy of great diversity

The following data comes from the work of the Africanti network (<http://www.africanti.org/résultats>) which has been studying the development of ICTs in Africa for about ten years, using a socio-geographical approach taking account of the way in which the problem is posed on different geographical levels and for different types of actors, of the aims or strategies of these actors and of the material character of the phenomenon, with all of these aspects being placed in the present context of the opening up and globalization of the economy [Chéneau-Loquay 2007].

To identify the activities relating to the ICT sector on the local level, we have developed a survey procedure combining a study of the existing literature with empirical observation (observations, interviews). The outline of this procedure is as follows: determining the urban districts to be studied in terms of their socio-economic and geographical characteristics (central or peripheral, business, university or residential, middle class or poor) and placing them in the global context in terms of the state of the ICT sector (electrification, infrastructures, central policies and local management), identifying the activities present there (shops, telephone, internet and mixed access

⁷ Cheikh Gueye, in his study on Touba, the holy city of the Mourides, shows the constant confrontation between religious, political and business figures in a complex game in which their interests are highly interwoven.

points), studying these activities, conducting surveys of cybercafé and shop managers, questioning sales and repair personnel and interviewing cybercafé users.

Our surveys mainly covered three capitals - Bamako and Ouagadougou in January and February 2004, and Dakar⁸ - but also Abidjan [Gnamien 2002]. More than elsewhere, in Africa the use of new technologies is an urban phenomenon and the modes of appropriation differ according to the socio-economic level of the populations in a given area. However, two essential features of an African appropriation model adapted to the low living standards of the population can be highlighted: shared access via public, associative and especially private access points, and a new and used products trade organised in networks from import through to retail sale. From the import business through to itinerant salespeople, a whole fabric of activities has been created in urban zones over the last ten years or so.

From import to retail trade, organised circuits embedded in the urban landscape

Second-hand IT products, computers, mobile phones and their accessories are feeding a new market that is creating employment and resources and has been seized on by the informal sector.

A whole series of studies have been dedicated to African traders in general, and their informal or parallel circuits.⁹ Africa is considered a place where the people of the "interface" [Retaillé et al 1993], the migrant traders and transporters who run powerful and often illegal cross-border economic and social networks, play a decisive role [Grégoire et al 1993]. There is little data, however, on the particular and more recent trade in electronic tools.

A study by a team of urban planners from Harvard University in 2000 showed that the major West African traders from Nigeria and the Senegal travel all over the planet between the key centres of the world economy, to the Gulf, Dubai and major African cities, to find and sell cheap electronics products. Over the past ten years, airlines have considerably increased the frequency of their flights between Dubai and the main sub-Saharan commercial centres of Johannesburg, Lagos and Nairobi. The route between Lagos and Dubai is used in particular by businessman Igbo, a spare parts trader attracted by the enormous secondary market in Dubai for second-hand computers, peripherals and other electronic products. These second-hand goods generate several cycles of product recycling and recovery. In Alaba on the outskirts of Lagos, an enormous international electronics market has been created spontaneously in a no man's land between two motorways. Although officially described as "unorganized", at the end of the 1990s the market comprised some 50,000 traders with net turnover of more than 2 billion dollars a year. Alaba has become the largest second-hand electronics and recycling market on the continent (75% for West Africa) [Koolhaas 2000]. According to a study by an NGO working to promote waste recycling [[Basel Action Network 2005](#)] an average of 500 containers of computer equipment arrived each month in 2005 in the port Lagos, of which 75% was unusable and was disposed of without any precautions whatsoever, causing pollution of the environment by hazardous substances (lead, mercury...)

Sandaga market in the centre of Dakar also illustrates the efficiency of such agents who are considered as being marginal, informal and illegal as far as the traditional concept of the economy is concerned. The centre of Dakar is in their grip. The "unbridled growth" [Ebin 1992] of Sandaga market since 1986, the date when the government put an end to protection of Senegalese manufactured products, has turned it into a regional hub where all sorts of electronic equipment are sold, from radios to mobile phones and even computers, after being imported more or less legally from Dubai, Hong-Kong and NewYork, essentially by traders from the Mouride brotherhood who control import activities [Copans 2000, Ebin 1992]. Victoria Ebin described how an important Mouride trading family worked from its headquarters, the electronics store of Sandaga, its centre of operations and the hub of its operations networks. She stressed the key role played by the dealers, these "semi-clandestine

⁸ Personal surveys and several papers since 2002.

⁹ Since the beginning of the 1990s and the founding texts of the study of "bottom-up politics" compiled by Jean François Bayart (dir), *La réinvention du capitalisme, Les trajectoires du politique*, Karthala, Paris 1994. See the review by François Constantin, "L'informel internationalisé ou la subversion de la territorialité" which takes stock of the "political analysis tools" for exploring the terms of the transactions produced by the combination of innovative dynamics, whether it be in the informal of the economists, the transnational of the internationalists or the networks of the different social science disciplines.

figures named *nyuro-man* after a fish that trawls the seabed in search of food”, who plunge into the depths of Sandaga in search of the customers and objects they want.

The shops selling cheap, recycled and second-hand computers are now to be found especially on Avenue Blaise Diagne and in the adjacent streets of the poor Médina district in the centre. Precise analysis of these supply and distribution networks remains to be carried out, however.

Phone use in Africa has grown, especially in recent years as the telecommunications sector has been opened up to competition, but there are still profound differences between and within countries. In the wake of the mobile phone boom, 72% of the telephones in use are of this type [ITU 2007], and small activities have been created to meet needs for retail and local services among users. Retail sales create new forms of appropriation of the urban space through the multiplication of shops and kiosks, and through the use of groups of young itinerant salespeople in large cities.

- The new telephone companies have outsourced distribution to small operators who may have a shop and who send young boys out into the streets. The youths are not listed anywhere and are paid very poorly on the basis of their results (surveys in January 2004).¹⁰ Battalions of itinerant sellers dodge the traffic to propose prepaid telephone cards at crossroads on the main routes. There are thought to be 300 of them in Bamako. In Ouagadougou there are currently hundreds of youths who have found such casual jobs (mobile phone repairs and sales, telephone card sales and even phone-charging services in the city centre) [Ouedraogo 2003].¹¹



Prepaid card sales in Dakar, September 2007

We carried out a survey in a district near the port of Dakar where a large number of shops have appeared, whose business revolves around mobile phones. Here, the image of the confrontation between the formal and informal is striking.

106 little stalls of 4m2 each, of which 4 serving food (known locally as canteens), opened 10 years ago and are all dedicated to selling mobile phones of every make and their accessories. They are installed against the wall of the ultra-modern building that is home to the offices of Sonatel's mobile operator, known by the name Alizée until this year and now Orange, to try to attract the customers of the operator. Alizée lodged a complaint against these dealers but in vain, and ended up moving its own sales and subscription activities in late 2006.

¹⁰ Personal surveys with the Economics Departments of the Universities of Bamako and Ouagadougou in January 2004. Prepayment has its advantages for the operator, who is paid in advance, and also for users who wish to limit their expenditure or remain anonymous, or who do not meet the requirements to be allowed a post-payment service and also, and above all, due to the validity period of cards. Its interest comes from the fact that telephones are used little for making calls, but much more for receiving calls, messages and for “paging” people, a very widespread game consisting in trying to avoid calling first.

According to our contacts (10 interviews with the stall owners and 20 with employees) these shops are rented for 30,000 or 35,000 CFA Francs a month. A trading fee is paid to the municipality (2,000 to 3,000 Francs per month) so the companies are doing business legally, but the way they operate is informal. The goods are not declared or subject to tax, and the owner stays in the stall and uses between one and three employees to sell phones in the street or bring customers into the shop. The prices of the telephones vary according to the models, from 25,000 Francs for the simplest to 600,000 Francs for the most sophisticated models. The owners and salespeople are, with a few exceptions, bound by family ties. The new and second-hand phones of all makes arrive in the port of Dakar in containers, are decoded and recoded by local computer specialists, and the subscriptions are sold at the lowest price, that reserved for students.

The profits are shared out as the owner chooses and according to the day's takings, without any contracts ever being signed or any rates set in advance.

Another example of this kind of informal out-of-store retail trade is given by the ICT newsletter in Africa, *Balancing Act*. On 3 November 2006, it featured a story from the *Le Patriote* newspaper in Douala, Cameroon.

Since Wednesday 11 October, police from central police station n°1 in Douala and the "tacklers" (mobile phone sellers) have been at loggerheads at "Carrefour Dubai". At the origin of the discord is Decision N° 170/D/C19/01/SP "prohibiting all gatherings, parking or installations for the purposes of trading on public thoroughfares". Carrefour Dubai is the crossroads between Boulevard de la Liberté and Rue Castelnau. For about four years now, a mobile phone market has developed there. As well as official shops, there are stalls proposing mobile phones and accessories and there are several categories of "tacklers". The salespeople work for the various shops and earn 200 CFA Francs per client. Then there are the dealers selling off stolen phones. There are also the phone repair men responsible for getting the phones back into working order so that they can be sold. At the end of the chain, there are the phone accessory sellers." The new and good-quality phones mainly come from Dubai and Europe", explains Alain, a "tackler". He carries on: "telephones stolen by street kids are retrieved and then sold to customers." A phone that we buy for 15,000 CFA Francs might be sold for 20,000 CFA Francs, or even more if the customer falls for it. The profits are large when the "goods" are sold off. [Balancing Act, Nov 2006]

Shared Access

Collective or shared access still remains, after ten years of development, the main form of access to telephone and internet in Africa. In this respect, we can speak of a specific model meeting the needs of a low-income population.

It comes in very different forms according to the two key factors of income level and geographical location, to which must be added local specifics such as infrastructure quality and sector regulation.

Another form of informal service that is neither authorised nor prohibited is the small sidewalk booth where mobile phones can be rented. These have proliferated in Abidjan, Libreville and Yaoundé because telephone centres with fixed lines are rare there, but are not to be found in Dakar.

377 phone points were counted just in the Plateau area of Abidjan in June 2002. On the rudimentary stands set up on the sidewalk, phones are lent out to make calls at lower prices than the cost of using your own phone. This possibility exists in Abidjan because two private mobile phone companies out of three, Télécel and Orange, grant preferential rates to their large clients for their employees. These phones are then passed on to relatives who are charged with the task of doing private business by setting up their stands in different parts of the city at different times of day: in the centre at morning rush hour and in busy places like bus stations and taxi ranks as people leave the office in the evening. This cellular phone point practice creates another informal activity on top of all the over casual jobs that exist. The mobile phone thus occupies public spaces in an anarchic manner: streets, sidewalks, squares, road junctions, parks and gardens, markets and coach stations. The proliferation in these same places of a whole host of kiosks selling prepaid phone cards¹² clutters up streets even more [Gnamien 2002].¹³

¹² This type of subscription represented between 83 and 91% of the clients of the three mobile operators in Ivory Coast.

¹³ See Guy Gnamien, *Différentiation des accès et usages des NTIC dans la ville d'Abidjan : l'exemple de la téléphonie mobile*, post-graduate dissertation in geography, Bordeaux III University, 2002, A. Chéneau-Loquay (dir). See website <http://www.africanti.org/résultats>.



Solar-powered public mobile phone access point with related services - Burkina Faso- March 2007

Small kiosks with a fixed phone and many telephone centres of all sizes equipped with one or several telephones can be found all over Senegal, even in the smallest towns, but only in the main cities of Mali or Burkina Faso (75% in Ouagadougou). Senegal played a pioneering role in the creation of private shops giving access to the telephone as early as 1992 [Chéneau-Loquay and Diouf 1998, Zongo 2000].¹⁴

In this country, 75% of the population is now accessible via a fixed phone less than 5km from their home. 17,000 public lines are available, of which almost half outside Dakar, and they are thought to generate some 30,000 jobs, according to the telecommunications regulation agency [art.org/]. Telephone centres are located along all the roads. In principle, the premises must be at least 12m², although this rule is not complied with. Through this original and popular form of access,¹⁵ a modern communication culture has been developed, preparing for the arrival of internet.

No other country in Africa has reached such a level of facilities outside the main cities. In Burkina Faso, the telephone is little known in villages, apart from a few NGO projects [Nyamba 2000],¹⁶ and although efforts are being made in Mali, rural telephones remain a challenge everywhere, representing something of a last frontier.

For internet access

In the centres of the capital cities, the business districts of Dakar, Abidjan or Libreville have "high-tech" cyber centres used mainly by tourists, foreigners, businessmen and students. The further out we go towards the poorer districts and smaller towns, telephone and cyber centres become more of a rarity, being replaced by a few association-run access points. The small service boutiques with one or two connected computers are most widespread in the business districts and residential zones. In Dakar they have become a feature of middle-class areas and are now a part of the landscape in the same way that bread kiosks are [Chéneau-Loquay 2004].

This business of small access points responds to great demand for accessibility and proximity among the population. Being in the informal sector of course means cutting costs, so they slash their prices and make up for it by selling equipment and other services such as photocopies and photography [Chéneau-Loquay 2000 - Ouedraogo 2002 -Guignard 2002].

¹⁴ Chéneau-Loquay A., Diouf P. 1998

¹⁵ To avoid confusion, we use telephone centre here to describe an establishment giving access to the telephone, telephone and cyber centre for mixed establishments giving access to telephone and internet, and cyber centre for an establishment dedicated to internet. The term cybercafé is not used because it is incorrect, in that very few such centres are cafés.

¹⁶ Nyamba A.

These establishments are informal only to a certain extent, as opening a telephone centre for phone access or a cyber centre for internet access means renting a line, paying bills and therefore being registered with at least one access provider. These are also activities that require good visibility to attract clients. In fact, their informal side resides in their company operation and personnel management systems.

Random operations

These very fragile activities, individual casual jobs, micro-enterprises or even shops often have a short lifespan (a few months, rarely more than two years) because competition is fierce and the profitability rates are low, given the investment, operating costs and management methods that are not always professional. The prices are also very low, set barely above the cost of telephone or ADSL links, to attract a clientele that is not particularly solvent and to keep up with the competition (200 CFA Francs, 30 Euro centimes, in 2007 à Dakar).

According to our survey, there was a wave of creations of such centres in 2001 and 2002, which came to an end in 2003-2004, and there have been a lot of closures in Dakar, Bamako and Ouagadougou.

According to our estimates, in early 2004 there were in the region of sixty cyber centres in Bamako, but they had a high mortality rate and short lifespan. Most were very small in size and there were only three to five very large ones in the shopping district of the city centre (near the operator SOTELMA which provides the connection). Most secondary towns have at least one telephone and cyber centre but they suffer from connection problems, high prices and frequent power cuts.

In Ouagadougou, most of the centres that opened between 2000 and 2002 have closed. In 2004, there were thirty or so establishments, and only the largest ones with at least twenty machines appeared viable, on condition that they also offered other activities alongside access. In this city, the four or five well-equipped centres earn their living thanks to a very particular clientele, that of Nigerians who use the web assiduously from Burkina Faso to organise all sorts of dealing [Chéneau-Loquay 2004].¹⁷

There is now the question of broadband access requiring new equipment and set to create new inequalities. In Senegal, the boutiques have upgraded, and an upturn in new creations has been noted thanks to a price reduction policy from the telecommunications company, although there is no such clear trend elsewhere.

The reasons for this fragility are linked not only with structural constraints, but also with the current situation of a telecommunications system that is in a transition period and, above all, with the particular operating modes of the informal sector. A brief outline of these can now be provided.

The lack of communication infrastructure outside the main towns, and the poor connection quality linked with narrow national bandwidth or with links via the telephone network, are the first obstacles.

Even in Dakar where the network is digital and prices are relatively low, 70% of access was via the conventional RTC link in 2003, despite the fact that the capital monopolises 90% of broadband links [Guignard 2004]. In Mali and Burkina Faso, meanwhile, it is the quality of connections that poses a problem, along with power cuts.

The high costs of connection and computer equipment in absolute value make Africa a continent where “everything is more expensive than elsewhere”. Although internet connections can be made, in principle, at local call rates, access providers hesitate to set up in smaller centres, especially in Burkina Faso and Mali where the particularly high costs of local and international calls are due in part to the monopolies held by ONATEL and SOTELMA. The purchase price of a full workstation is the equivalent of a full year’s wage for a senior manager in the civil service in Burkina Faso.

There are local supplies of second-hand computers that have been recovered and recycled, but service quality is not good. Very few companies buy software, meanwhile, and they all use pirate

¹⁷ and personal surveys 2005.

copies, a situation which hinders development of the freeware which could provide the right response to the needs of small firms with low budgets.

Forms of management are diverse and relate to social relations and local culture.

The lack of skills and the absence of qualified personnel and management knowledge are general in small centres, which we will take as meaning those with less than ten computers, which are also the most numerous. According to our surveys in Ouagadougou, Bamako and Dakar, the situation tends to differ according to the size of the establishment: the smaller and more mixed it is (one or two telephones, one to five computers, a fax, a photocopier) the less specialised the owner or manager will be, and the more family-run the business will be.

Aside from a few large, high-tech cyber centres in city centres and business districts, most owners have no particular IT qualification, access provision comes on top of their other activities and they know nothing of marketing techniques. Our surveys in Senegal show that entrepreneurs saw the arrival of ICT as an opportunity to make money quickly without a very large investment. They acquired the equipment themselves, or often through a relative who is an immigrant and made the investment. The role of immigrants in this sector is fundamental.

The day's takings can go to meet immediate needs, and if telephone bills are not paid the lines are cut off. The staff comprises young people, often members of the family who are paid little or nothing at all and work long days without paid holiday or social cover (€40 to €55 per month) [surveys in 2005, 2006 Burkina-ICT2006, Aden 2007]. These young people are capable of showing users how to open their mailbox and browse the internet, but few can do any more. Rare are those who have received sound training in new technologies. And yet these new mediators who provide the interface between the tool and the user, these modern-day scribes, play a crucial role in giving people who have difficulties or are illiterate, like the great Mouride traders, access to the network [Lafitte 2001].

The absence of technical and legal standards becomes of particular significance for high-technology equipment like computers. Lack of maintenance is a key problem of under-development, and is particularly crucial in this field in which equipment ages all the more quickly when it is exposed to difficult climate conditions; rare are the establishments with air conditioning, given the high cost of electricity. On a day-to-day basis, repeated power cuts (ranging from a few seconds to tens of hours), failures of telephone networks or broadband lines, power inverters that cannot regulate current properly, generators that are stopped because too costly, broken-down computers and IT viruses are very widespread problems. There may be networks of installers and maintenance service companies distributing spare parts and consumables, but they are used little by these shops. The people or entities that try to acquire these techniques do not always have an official legal status allowing them to benefit from loans or to have means of recourse if the equipment does not work properly. The informal system is characterized by an absence or shortage of capital in the production process, and by chronic underinvestment. The lack of borrowing possibilities limits the sector's accumulation capacity.

Our recent surveys of the workings of public access points in Burkina Faso, Guinea and DRC show that effective operation of all the components over the longer term is the exception rather than the rule.

These poor conditions cause equipment breakdowns and the closure of companies that are incapable of coping with the necessary expenditure. Others replace them when the demand is there.

But looking beyond this catalogue of problems, we must seek for the deeper reasons hindering the effective operation of these activities and their long-term survival in the very nature of the popular economy itself.

Research into ICT access systems installed by the ENDA NGO in working-class districts of Dakar clearly shows the unsuitability of models imported from outside for a popular economy in which social considerations compromise economic and financial logic [ENDA 2004].¹⁸

The study shows that community or family management in situations of poverty remains totally dominated by social considerations and the balance of power between participants when it comes to distributing resources. This form of management corresponds to subsistence economy management in

¹⁸ Organisations Populaires et Technologies de l'Information et de la Communication (phase II): Ancrage Economique, final technical report, March 2002-June 2004, ENDA cyberpop.

which priority is given first to people and to the immediate resolution of daily problems. The decisions made in the “formal” space defined at the beginning of the project are challenged daily by negotiation between participants for immediate distribution of the resources that are generated. The redistribution of the resources generated in the project in question also concerned resource persons and entities, either through loans that were not repaid, services that were provided (notably the telephone) or personal loans granted to cope with an emergency (illness, family difficulties, death...)

“Because of their environment, the Community Resource Centres that have been set up have not succeeded in escaping from a community, redistributive approach: resources have been generated, but their social allocation (immediate individual aid or local community development) has limited their ability to accumulate the capital they need to extend their technical capacities. In the same way that subsistence trades activities grow in terms of the number of people they employ, the CRCs also tend to “employ” a whole team of managers, assistants and telephone centre staff who tend not to be productive and merely extend the circle of those entitled to access to the resources”.

In this way, the CRCs have tended to obey the rules and practices of the popular economy: they have been considered as activities generating activities “for all”, which is to say as a common asset from which everyone is entitled to receive the fruits.¹⁹

In West Africa in general and in Senegal in particular, the “informal” way of operating is highly structured. The forms of urban social organisation are constructed around multiple social networks. In this “cluster” society, as Emmanuel Seyni Ndione²⁰ calls it, people establish a number of networks to be used as the need arises. This works on all levels – financial and affective alike. Everyone is encouraged to produce, to find the means to feed the network, and in return the network feeds them. To be poor in Wolof is to be an orphan, while wealth tends to be measured by the extent of social relations enabling people, for example to raise funds quickly [Engelhard 1998].

Conclusion

In the euphoria of the 1990s when international organisations were keen to take shortcuts, some thought that ICTs, by their relatively virtual nature, could escape spatial and organisational constraints [UNDP 2001].

Alpha Oumar Konare, the President of Mali, declared at a seminar on internet in Africa in 2000 that he dreamed of connecting all the new municipalities of Mali to the internet to administer these territories without physical networks more effectively. It has turned out since then that digital equipment of the territory, even using wireless technologies as recommended by the International Telecommunications Union (ITU), requires a certain number of material conditions, skills and organisation. Physical systems are failing because they do not meet the technical and organisational standards to operate over the longer term. In terms of equipping the territory to build and establish a network, it takes trained staff, civil engineering work, up-to-date maps, different professions working together and good coordination (to avoid other work accidentally destroying the network), regular maintenance to keep it in shape, a certain amount of good citizenship (landline networks are vulnerable to theft of copper for its relatively high value), a sufficiently stable political system and a corps of competent technicians to choose and plan the infrastructures.

The consequence of the absence of these conditions and of the rule of law is that African territories are characterised by their dual and heterogeneous nature: spaces within and without the networks co-exist and spatial inequalities reflect the weakness of the State and profound social inequalities. In all places, a large part or even a majority of the population lives outside the rules of economic law and beyond the reach of physical networks. Mobile telephones, which are less sensitive to spatial and organisation constraints, adapt better to the disadvantages of the informal, however, and are an unquestionable success in Africa.

According to Alain Gras or Manuel Castells²¹, Africa is crushed by the weight of western technologies, but a more complex analysis shows that to meet their needs, the popular economies

¹⁹ Organisations Populaires et Technologies de l'Information et de la Communication ...

²⁰ Enda Graf Sahel, Une Afrique s'invente...

²¹ GRAS A. 1993, Grandeur et dépendance, sociologie des macro-systèmes techniques, CASTELLS M., Le pouvoir de l'identité...

develop strategies on a clan basis, combining modern and traditional tools and processes in which the categories of legal and illegal do not apply. The proliferation of new activities related to ICTs and their appropriation show particularly clearly how another economy is being created in the LDCs on the basis of another, “paradoxical” modernity.

From the economic point of view, Serge Latouche summarised the problem well when he wrote “*Sub-Saharan Africa represents less than 2% of world GDP, and this 2% includes a first giant, South Africa, followed by a second in financial and export terms, Nigeria with its oil resources. This means that for 600 to 700 million Africans, there is hardly anything left. But as we all know, hardly anything still means something! So if people are living when they have got nothing, it is that they are living outside the logic of the economy which, for the economy, is totally aberrant.*”²²

In geographical terms, the globalisation brought about by ICTs is also expressed through original forms of territorial recomposition: telephone and internet access points and places where people buy digital accessories are new urban spaces of conviviality and of transactions, new markers of the territory. Looking beyond this, the NICTs are giving rise to a new city model, the “informal world city” such as Alaba near Lagos in Nigeria. Born out of the immense spontaneous international market for digital products and located in a non-place between two motorways, Alaba is connected to “global cities” all over the world and bears testimony to the vitality of modes of inclusion in globalisation that are totally deviant in relation to the western model. It defies the traditional space organization and management criteria of the city, its social organisation is based on flows that are beyond the logic of a single place, and it escapes the socio-political control of local national society. For town planner Rem Koolhaas who has studied urban extremes on many continents, Alaba is not an African exception, but the paradigm of a future model of the “world city” produced by the information society...²³

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²² Guest Serge Latouche, Revue Urbanisme n°346, January-February 2006 pp 75-83

²³ KOOLHAAS R., 2000, Lagos, Harvard project on the city, in Mutations, ACTAR, Arc en Rêve Centre d'architecture, Bordeaux.

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