

Côte d'Ivoire in the information society: between doubt and hope

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ABSTRACT: Human being, in all his history, has ever been so dependent upon information. The circulation and consumption of information has engendered a novel society: the society of information. No human community can avoid it. Information is conveyed through Medias. In order to take advantages of these informations, some necessary arrangements have to be made first upstream and downstream. Without them, that community runs the risk of being marginalized or excluded from the information society.

In the present article, the hindrances to the circulation of information in Côte d'Ivoire will be analyzed first. These obstacles constitute real problems which puzzle observers as for the participation of Cote d'Ivoire (CI) in the society of information. However, it is suitable to relativize this point of view. In the second part, we will cast light on the prowesses made to solve these problems which constitute a real enigma until now.

KEYWORDS: information, hope, doubt, ICT, electricity.

1 INTRODUCTION

The two last decades are characterized by the intensive consumption of information by all the societies. It is difficult and even impossible to think about avoiding it. Thus, one attends the advent of the information society. That society shall still overturn deeply the relationships between human communities, civilizations, the different fields of the economy and so forth. To take an active part in the construction of the information society, some arrangements need to be made. These arrangements range from the homogenous distribution of the telecommunication infrastructures on all the national territory, the reduction of the digital fracture, the accessibility to electricity to the availability, the quality of the electricity, and the connection equipments.

Moreover, Côte d'Ivoire knew telecommunication towards the end of the 19th century. Nevertheless, according to the classification of the International Telecommunication Union (IUT), Côte d'Ivoire ranks 151st out of 166 countries [1]. With regard to what precedes, one can reasonably ask the question to know whether Côte d'Ivoire can take an interesting position in the construction of the information society.

It would be pretentious to give a spontaneous answer this question. Furthermore, (I) many reasons underlie the risks that hover on the chances of CI in the information society. However, (II) there remain real hopes because of the will for the reduction of the digital fracture.

2 MATERIAL AND METHODS

The working out of the present article is based on a review of related literature and impregnated of some current events. The reading of some documents enables to take a non-exhaustive stock of the issue relative to the circulation of the information in Côte d'Ivoire. Moreover, the fact of taking the events of this moment into account permits to make some projections in the future.

The qualitative and quantitative data originate from the Telecommunication Regulation Authority of Côte d'Ivoire (ARTCI)¹, the National Agency of the Universal Telecommunication Service (ANSUT)², the Higher Communication and Audiovisual Authority (HACA)³, the Ivorian radio-electrical Frequencies Management Agency (AIGF)⁴, and the National Institute of Statistics (INS)⁵.

This article highlights some subsidiary and nearby problems which usually obstruct development. This analysis has to do with the whole national territory, but the approach on the ground was carried out in the cities of Bouaké and Abidjan. These two cities epitomize certain subtle phenomena in the others towns of the country. The towns of Abidjan and Bouaké are the largest towns of Côte d'Ivoire (CI). In these towns, one finds several types of socioeconomic infrastructures, the greater part of the industrial fabric, and the population. The population of Abidjan has changed from 18.7% of the national population in 1998 to 19.4% in 2014. However, the population of Bouaké has decreased; it has changed from 5.2% of the national population in 1998 to 4.5% in 2014 [2]. This situation finds its explanation through the fact that Bouaké was the capital of the armed insurrection Côte d'Ivoire knew for a decade. This situation has brought about the exodus of the populations to the south of the country, which accounts for the fact that the population of Abidjan is larger.

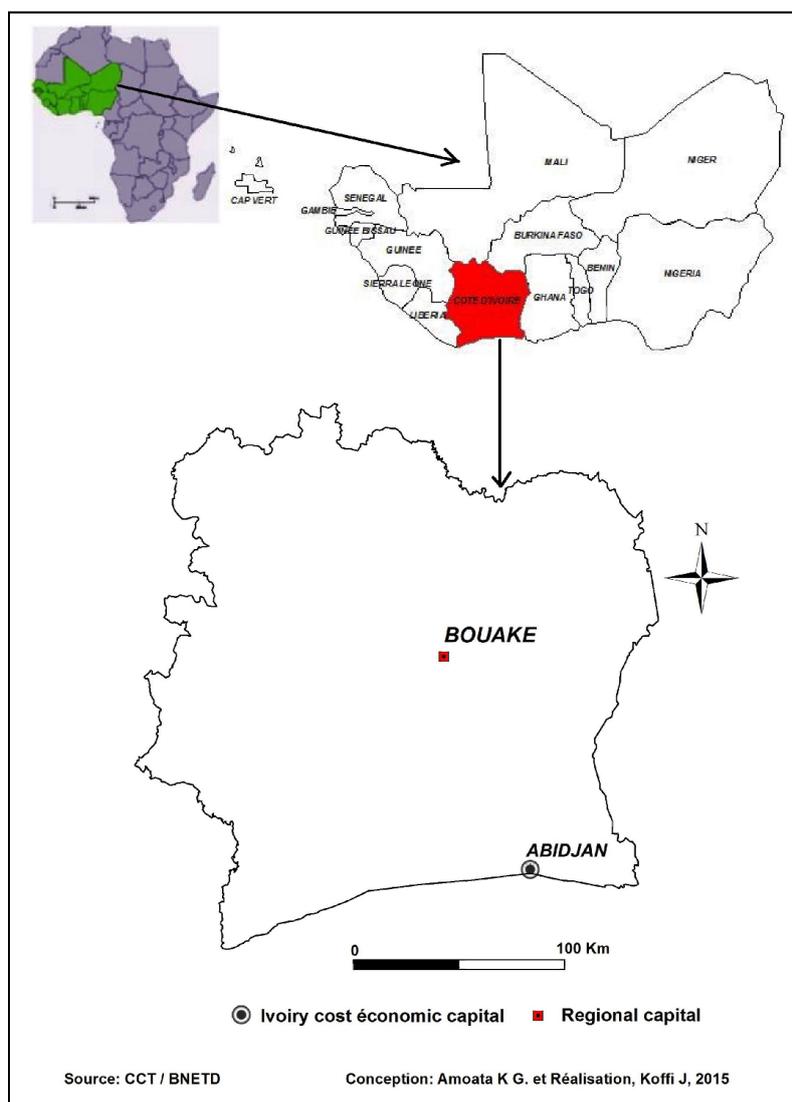
¹ Autorité et de Régulation des Télécommunication de Côte d'Ivoire

² Agence National du Service Universel de Télécommunication

³ Haute Autorité de la Communication et de l'Audiovisuel.

⁴ Agence Ivoirienne de la Gestion de Fréquences radioélectriques.

⁵ Institut National de la Statistique.



Observation area

3 RESULTS AND DISCUSSION

3.1 THE REASONS OF THE SCEPTICISM OF CÔTE D'IVOIRE TO TAKE PART IN THE CONSTRUCTION OF THE INFORMATION SOCIETY

3.1.1 A WORRYING DIGITAL FRACTURE

In Côte d'Ivoire, we observe the fracture by access and the fracture by the use.

First, in the fracture by access the digital fracture is modelled upon the existing regional disparities. With its status of the economic capital, the city of Abidjan benefits from important investments in the technological field, but this is not the case in the other towns of the country. In Abidjan, it is easy to have access to information via the Medias. Information are conveyed through various channels. Concerning the radios, we have the national channels such as Radio Côte d'Ivoire and Fréquence 2. We also have private channels such as Radio Yopougon, Jam Fm, and Radio Nostalgie, and international channels as BBC⁶,

⁶ British Broadcasting Corporation

VOA⁷ and RFI⁸. As for the television, it does not cover all the national territory. The country has at its disposal three television channels which belong to the group RTI⁹. The first channel, that is, RTI 1 hardly covers 80% of the national territory. The second channel, that is, RTI 2 broadcasts within a radius of 100 kilometres [3]. As for the third channel which is RTI Bouaké, it broadcasts within the city of Bouaké and its surroundings only. RTI 1 has a strong hold on that channel which intermittently broadcasts. RTI Bouaké does not broadcast all the time and RTI 1 regularly uses its free time, which irritates more and more viewers.

Second, the high number of illiterate is one of the bases (factors) of the fracture by use. According to the statistics of UNESCO¹⁰, the rate of illiteracy in Côte d'Ivoire is 51%, which constitutes an obstacle to development. More than 50% of men and 70% of women over 15 years old are illiterate in Côte d'Ivoire [4]. Côte d'Ivoire is among poor and heavily in debt countries in which more than half of the population earns less than one (01) US dollar per day. In addition to this, we have low salaries. Though the government has increased the Minimum Interprofessional guarantee Salary (SMIG)¹¹ at FCFA 60,000 against FCFA 36,607 before, this increase does not diminish the high cost of living. As a consequence, an important proportion of the population is incapable of affording the equipments. Figures 1&2 show the costs of some occasional equipments. These promotional costs are thrice higher than the novel SMIG. So, it is preferable to restrict oneself to the daily life.



Figures 1&2: Advertisement posters

These special advertisements are very frequent at the eve of feasts (cliché by the author, March 2015).

Third, the national channels speak in praise of political leaders. Besides, the processing of information is partial and sometimes biased. Faced with the high costs of equipments (Figure1&2 above), populations resort more and more to the operation called in Côte d'Ivoire " spider connection" to diversify their sources of access to information, namely via the Internet. This operation consists in bypassing the classical (normal) way of subscribing to Canalsat. The customer gets in touch with an unofficial subcontractor who offers him a large range of products cheaper than those of the society. A classical subscription¹² to Canalsat services is function of every customer. It takes into account a formula (an option chosen) and the duration. Its minimum and maximum costs are respectively FCFA 5000 and 48000. However, the non-conventional subscription ranges from 2000 to 3000 and enables to have access to a variety of channels.

3.1.2 THE ENERGETIC PARADOX

In 2003, the production of the electricity in CI was 1350 Megawatts. This production was of hydraulic (35%) and thermal (65%) origin [5]. In 2005, the production of Côte d'Ivoire is 11397.36 Gigawatt hours, and exports some in many West African countries. The electrical energy exported varies from one country to another. In 2005, 858.89 Gigawatt hours were exported to Ghana, 414.63 were exported to Togo and Benin, 121.95 Gigawatt hours were exported to Burkina Faso, and 1, 90

⁷ Voice Of America

⁸ Radio France International

⁹ Radiodiffusion Télévision Ivoirienne

¹⁰ United Nations Educational, Scientific, and Cultural Organization

¹¹ Salaire Minimum Interprofessionnel Garanti

¹² The offers of Canal + Côte d'Ivoire are available and detailed at :

http://www.canalplus-afrique.com/evenement/files/ft/FT_CIV_1114.pdf, visited on 9th Mars 2015

Gigawatt hours were exported to Mali. However, less than 30% of households have access to electricity of good quality. Thus, one may deduce that the other 70% undergo power cuts caused by the poor quality of the electricity, the failing in tension, and the costliness of the connections [5]. Consequently, populations resort to various means to have light. Dja (2008) shows that 45.52% of households use petrol (gaz), 1.51 % have neither petrol nor electricity, and 24.62 % have illegally access to electricity, and only 28.35% of the population have individual electric meters [6]. Moreover, the minimum cost of the connexion is F CFA 140,000 and varies according to quarters, towns, and regions. This “electrical gulf” is observable in urban, periurban and rural zones. Faced with this situation, populations of urban and periurban zones turn to retailers of electricity. The connection cost is not the same everywhere, and depends on the mood of the retailer who sets the price by taking into account the number of bulbs, household appliances, and outlets. The connection cost is between FCFA 3000 and 7000. As for the consumption, it varies between F CFA 2000 and 7000 per month. However, the electricity bill is paid at the end of every two months.

The illicit sale of the electric energy is a real danger for populations. It causes the presence of electric cables in the environment, and sometimes in the streets of quarters after the coming of a storm. Figure 3 points out the disorder engendered by cables in Adiopodoumé (Kilometre 17), a village located at some kilometres from Abidjan.



Figure 3: anarchic connections of electric cables

Some inhabitants are putting the cables up in order to avoid electrocution

Moreover, the quality of the electricity leaves a lot to be desired. In evenings and week-ends, there is an important drop in the tension. To benefit from a suitable quality of electricity, it is imperative to have a transformer. In the contrary case, a candle gives more light than an economic or an incandescent bulb.

3.2 SOME ENCOURAGING ENTERPRISES

3.2.1 SOME INSTITUTIONAL REFORMS

Further to the carrying out of a structural reform program which introduced the code of telecommunication in 1994, two decrees created the Agency of Telecommunication in Cote d'Ivoire (ATCI) as an independent organism of regulation, and the Counsel of Telecommunication of Côte d'Ivoire (CTCI) as the supreme authority of arbitration for settling the possible conflicts between ATCI, CI-Telecom, and the other private operators. ATCI and CTCI were created on 7th, July 1995 by the law N°95-526 [7]. The missions of ATCI are to give competence, enforce laws and obligations of which the Administration was in charge through the Telecommunication code, make apply texts in accordance with rules, define principles and authorize the tariffing of the services provided under the regime of the monopoly, deliver authorizations for the exploitation of telecommunication services, give agreements, terminal equipments, follow up the management and the use of the radio electrical frequencies spectrum, contribute to the realization of the missions of the State relative to defence and the public security, carry out a study for the account of a third party, the investigation or gathering of information, contribute to the

realization of every task of public interest that the government could entrust it with for the account of the State in the Telecommunication sectors[8].

As for CTCI, it is an administrative authority. Its mission consists in seeing to the respect of the principle of equality in the treatment of the operators in Telecommunication sectors, and the respect of the rules in the concession conventions, specifications, and the authorizations delivered by the Administration. Besides, before any jurisdictional resort, it must ensure the conciliation and arbitration of the conflicts between the Administration and the operators in the Telecommunication sector during the enforcement of the attributions by the Administration. Furthermore, the National Funds of Telecommunications (FNT)¹³ was created by the decree N° 98-625 of 11th November 1998. Its objective is to ensure the funding of rural telephony operations, programs and public projects relative to the TIC. The fund is credited with 2% of the turnover of the operators in the sector. However, the presidential ordinance N° 2012-293 of 21st March, 2012 created ARTCI, the Ivorian Agency of the Management of Radio electrical Frequencies (AIGF), and the National Agency of the Universal Service of Telecommunications (ANSUT) that takes back the activities of ATCI, CTCT and FNT. On 26th September 2012, the Cabinet adopted a decree about the organization and the functioning of the society of the State named ANSUT. ANSUT takes back the current activities of FNT [9]. It is about the High Rate National Network project of the optical fibre (ReNaHD) or the National Project of Rural Telephony (PNTR), the electronic Governance project (e-Governance), e-Education projects, and Cyber-health inherited from the Panafrican global Project network of the Services on Line (RPSL), the e-agriculture project, the "5000 cyber centres" project, and the project "one citizen, one computer, one connexion" whose mission consists in seeing to the access of all the populations, particularly the most underprivileged to the essential Telecommunication tools and provisions, on the whole national territory [10].

3.2.2 SOME INNOVATIVE PROJECTS

3.2.2.1 THE IMPROVEMENT OF THE CONDITIONS OF ACCESS TO ELECTRICITY

Some reforms have made it possible the easing of the charges linked to connexions. The cost of connexions remain unchanged, nevertheless it is staggered. The customer pays FCFA 1000 per month for a decade. Concretely the consumer in question will have to pay FCFA 2000 per bill since bills are issued every two months. The building of the hydroelectric dam of Soubré arouses much hope. At the end of works, this dam will produce around 275 Megawatt of electrical energy with an annual productible of around 1100 Gigawatt hours. This quantity will complement the existing production, thus it would be important to think about making it cheaper. Faced with the frequent drop of the waterways' rate during dry seasons, some observers think that one has to turn to renewable energies. «The energetic challenge cannot be sustainably coped with fossil energies. On the other hand, like all Africa, our country can stake on an abundant natural resource and sustainable with biomass. This biomass constitutes a green energy which enables to produce a competitive electricity. That is why we decided to take up this project called Biokala"¹⁴. This project foresees the building and the exploitation of a power station with a capacity of 46 Megawatts [11]. It will be built in Aboisso, a hundred kilometres away at the east of Abidjan. The biomass will be used as fuel in a boiler and the vapour produced will ensure the turning of the electrical turbines. The biomass is made up of the residues of palm trees: its trunk and its branches. Its objective consists in reducing the electrical deficit in rural zones. Concerning the solar energy, it knows some timid beginnings. Yet, it constitutes a panacea for the reduction of the 'electrical gap' the country (Côte d'Ivoire) experiences.

3.2.2.2 THE ACCESS TO EDUCATION

The government has taken some policies upstream and downstream near populations. Upstream, it urges populations to provide education for children, especially girls. Northern regions are much more targeted, for in these regions the schooling rate is low. Thus, the primary school is free and compulsory until the age of 15 years. According to the National Institute of Statistics, the net rate of schooling at the primary school is 56.1% [4]. Downstream, it initiates campaigns for fighting against

¹³ Fonds Natinal de Telecommunication

¹⁴ The words of David Billon, the originator of the project of the group SIFCA. For more information on the group SIFCA, please consult the following address: www.groupesifca.com. Concerning the project, it is entitled "Biokala: une énergie verte pour la Côte d'Ivoire" and may be consulted at this address: http://www.groupesifca.com/pdf/dossier_presse_biokala.pdf. Document visited on 9th March 2015.

the phenomenon of pregnancy in schools. The infringers run the risk of being imprisoned or being dismissed if they are civil servants.

3.2.2.3 THE CONSTRUCTION OF TELECOMMUNICATION INFRASTRUCTURES

ANSUT is in charge of many innovative programmes which enable populations to diversify their sources of information. This structure has elaborated a project on the building of wire and wireless telecommunication infrastructures. For example, we have the programme for supplying and establishing a transmission network of 7,000 kilometres in length made of optical fibre (backbone national), and the supply and wiring of a switch and equipments of the access network CDMA¹⁵ (Code Division Multiple Access). The goal of this operation is to popularize the access to telecommunication networks/TIC, and reduce the digital fracture between rural and urban zones. At the end, populations in CI, the public administration, and enterprises (operators in the telephony and the Internet access suppliers will easily have access to services as Internet, visioconference which is useful for telemedicine, e-learning, and the broadcast of digital television. Until now, the materialization of this programme presents itself as follows [10]:

- 1600 kilometres of optical fibres are unfolded in the Western zone, and receipts are in process
- 600 kilometres of optical fibres are being constructed in the Eastern zone
- The setting up of a provisory exploitation for 2000 kilometres in process
- More than one thousand localities connected to the CDMA technology

It is worth noting that the State is not the only to unfold the optical fibre. Private operators also install their optical fibres. Figure 4 shows the building of an optical fibre network by a mobile telephony operator MTN in Abidjan.



Figure 4: The building of an optical fibre network

The realization of an optical fibre network project in Yopougon Gesco, Abidjan (Cliché by the author, March 2015)

Private operators have built a high rate optical fibre transmission network of more than 2500 kilometres length. On the fringes of the 2014 edition of the national days show of the Information and communication technologies (JNTIC), the general director of AIGF announced the concession to CI of frequency bands intended for the terrestrial digital television

¹⁵ CDMA national coverage rate is available at: www.ansut.ci

(TNT) by the International Union of Telecommunications (UIT). This concession amounts to 48 channels for the unfolding of its frequencies. If a channel contains twenty (20) programmes, therefore let us imagine how many programmes Côte d'Ivoire will have [12]. Until a recent date, RTI 2 which broadcasted only in the vicinity of Abidjan and on Canalsat, has taken up an ambitious project of space conquest. This initiative put an end to decades of hegemony of RTI 1 and the monotony in the broadcasting of information for populations who cannot subscribe to Canalsat. Now, RTI 2 is present in regional capitals and the cities in the interior of the country. Since 18th April 2015 RTI 2 broadcasts in the town of Bouaké (see Figure5) and its surroundings within a radius of 90 kilometres [13]. The city of Bouaké is the second densely populated city after Abidjan. It is also the second city the most provided in industrial infrastructures after Abidjan.



Figure 5: An annunciator poster about the advent of RTI 2 in Bouaké

Since 18th April 2013 RTI 2 functions in Bouaké (cliché by the author, October 2014)

3.2.2.4 THE IMPROVEMENT OF EQUIPMENT ACCESS CONDITIONS

19th March 2015 is the date when the project “one citizen, one computer, one Internet connection”¹⁶ was carried out. The main objective of this project was to equip five hundred thousand (500,000) families with micro-computers and with access to the Internet. This initiative represents a relief for populations who were confronted with prohibitive costs of equipments. This project consists of the following kits:

- Portable computer + an Internet connection of 3,6 or 12 months
- Digital tablet + an Internet connection of 3, 6 or 12 months.

It is worth noting that the average cost of computers varies from FCFA 168000 to 269000, and that of digital tablet from FCFA 50000 to 196000. One can have a computer or a tablet without Internet connection, but one can have access to the Net without buying a computer or a tablet of the project [10].

4 CONCLUSION

The advent of the Information society is hindered by many factors. The most plausible factors are the high rate of illiterates, the prohibitive costs of equipments and subscriptions, and the inaccessibility to electrical energy. However, populations do not stay outside of the consumption of information. In fact, they resort to less conventional methods by devoting themselves to parallel connections or “spider connections” in order to have access to certain services as those of Canalsat, and electricity. With regard to this situation, arrangements are made so that populations may benefit from the advantages of the information society. Although many projects be at an embryonic stage, they are being materialized, which arises much hope. One remains optimistic about the continuation of these initiatives. However, we recommend the State to fight against the lack of maintenance of telecommunication infrastructures and the embezzlement of some equipments.

¹⁶ For more information, please visit this web : www.ansut.ci

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REMARK:

- Euro 1 = franc CFA (F CFA) 655,956
- \$ US 1 = *franc* CFA 500

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