

ICT in Education in Côte D'Ivoire

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Source: *World Fact Book*¹

Please note:

This short *Country Report*, a result of a larger *infoDev*-supported *Survey of ICT in Education in Africa*, provides a general overview of current activities and issues related to ICT use in education in the country. The data presented here should be regarded as illustrative rather than exhaustive. ICT use in education is at a particularly dynamic stage in Africa; new developments and announcements happening on a daily basis somewhere on the continent. Therefore, these reports should be seen as “snapshots” that were current at the time they were taken; it is expected that certain facts and figures presented may become dated very quickly.

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Overview

The development of ICT in Ivorian colleges, universities and teaching institutions is expected to revive distance training, the exchange of training programmes relating to technology, improve access to computer equipment, and play a leading role in a more large-scale and efficient integration of ICT in the education system.

The main challenges to the use of ICTs in education in Côte d'Ivoire are the lack of necessary infrastructure, computer equipment, qualified human resources, and the high cost of ICT materials. Large disparities in access to equitable educational opportunities between genders, ethnicities, and regions needs to be remedied. Despite these obstacles, the gradual adoption of training programmes, public and private initiatives, and other activities are contributing to the achievement of a realistic vision.

Country Profile

Côte d'Ivoire is a West African country with an area of 322,000 square kilometres. It is bordered by Mali and Burkina Faso to the north, by Ghana to the east, and by Guinea and Liberia to the west. It has 550 kilometres of coastline along the Atlantic Ocean to the south. Its official capital, Yamoussoukro, is located at the country's centre, and its principal commercial centres are Abidjan and San-Pédro, on the Gulf of Guinea, and Bouaké, in the centre.

Table 1 provides some selected socio-economic indicators for the country.²

Table 1: Socio-economic Indicators: Côte d'Ivoire

Indicators	
Area	322,463 km ²
Population	18.1 million
Population growth rate	3.4%
Life expectancy	46.0 years
Human Development Index	164 (out of 175 countries)
GDP (US dollars)	\$15.5 billion
GDP per capita (US dollars)	866
Growth rate (2005):	1.8%
Literacy rate	50.7%

The Education System

Côte d'Ivoire has set up a national plan for the development of education and training within the time span 1998-2010 (PNDEF). This plan integrates important structural reforms:

- In primary education, to achieve universal schooling
- In secondary education, to thoroughly train and prepare students for the workforce or higher education
- In higher education, to improve the quality and efficiency to train and prepare students for entering a career, primarily in the private sector

In 2002, Côte d'Ivoire had about three million students, 73% of whom were in primary school, 17% in middle school, 5% in high school, 1% in a trade or technical school, and 4% in a college or university. This has been accomplished thanks to the financial effort made by the government and partnerships with the private education sector. There are still some significant challenges in addressing the educational needs of a continually growing population.

Table 2 summarises the number of students and teachers in the education system.

Table 2: Rate of Schooling³

Primary Education			Secondary Education		
Number of students					
Boys	1,162,300	56.78%	Boys	414,871	64.78%
Girls	884,561	43.22%	Girls	224,589	35.22%
Total	2,046,861	100%	Total	639,460	100%
Number of teachers					
Males	35,325	79.52%	Males	18,103	87.15%
Females	9,099	20.48%	Females	2,672	12.85%
Total	44,424	100%	Total	20,775	100%

ICT Policies⁴

In the 1970s, Côte d'Ivoire decided to bridge the digital gap to keep up with the development of computers and related technology. The Ivorian government considers ICT to be a priority and has conceived a national strategic plan for the development of ICT infrastructure. This plan identifies five strands in of ICT development:

- Infrastructure development
- Access
- Training
- Digital content development
- Legal and regulatory aspects

A co-ordination and follow-up mechanism was later introduced at the governmental, private, and civil society levels. To implement the plan, the Ivorian government has created the Ministry for Communication and Information Technology even though the national ICT policy still remains unclear. Different bodies in charge of regulating and overseeing developments in the sector have been instituted, but lack a clear description of role and mandate. While a policy in education has not yet been formulated, a policy for the integration of computer technology in education was approved in April 2001.

Telecommunication regulation operates at two levels:

- The Côte d'Ivoire Telecommunications Agency (ATCI), whose members are appointed by the Ministry of Communication and Technology
- The Côte d'Ivoire Telecommunications Council (CTCI), which intervenes in the event of appeals

Very often, decisions from these two regulatory bodies contradict each other, much to the despair of operators. To remedy this situation, the creation of a mediation and conflict resolution body is envisioned.

Infrastructure

The telecommunications network in Côte d'Ivoire is characterised by a low telephone density and significant geographical disparities between Abidjan and the interior on one hand and urban and rural areas on the other. The rate of telephones per 100 residents was about 2.5% in 2001-2002 and reached 10% in 2005 (in 1995, it was 0.82%). In rural zones, this rate rose only from 0.1% to 0.7% between 1995 and 2000, and to 1.5% in 2005. Only 40% of the demand for telephone lines was met in 2001-2002.

Côte d'Ivoire has been connected to the Internet since 1996 through the Leyland link. Currently this link operates at 256 kbps towards the US through MCI, at 1 Mbps towards France through France Telecom, and at 256 kbps towards Canada through Téléglobe. There are six Internet service providers (ISPs). On May 31, 2002, these providers had 15,354 subscribers through RTC, 105 through RNIS, and 108 through special connections.

Tables 3 and 4 provide a snapshot of the state of national ICT infrastructure in the country.

Table 3: Telephone and Internet Usage⁵

	Users (2001)	Users (2002)	Users (2003)
Fixed telephone lines	293,568	332,970	238,000
Cellular	730,445	1,027,058	1,239,131
Internet	13,934	10,509	12,213

Table 4: Communication density⁶

Indicator	
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Televisions per 1,000 people	60
Radios per 1,000 people	183
Fixed telephone lines per 1,000 people	18
Cellular phones per 1,000 people	45
Personal computers per 1,000 people	7.2
Internet users (in thousands)	

ICTs in Education

The education sector in Côte d'Ivoire is the first one in Africa to implement beneficial Internet applications. Multimedia enhanced education, distance training, and distance research of scientific information are important assets for those seeking to advance their knowledge.

It is clear that the computerisation of institutions, especially those in development or teaching, is becoming an urgent need, but it will be an arduous process. Some schools now offer training in computer management and networks, but there is further need for quality training programmes for technicians and engineers.

The primary institutions that offer training programmes in ICT are:

- National Institute of Technical Education (INSET): Offers training in ICT and runs the School of Tertiary Technology (ETT)
- National Polytechnic Institute- Houphouet-Boigny (INP-HB): Runs several schools that feature ICT programmes
- African Institute for Economic and Social Development (INADES): Offers training in IBISCUS programmes to help libraries/resource centres use ICT
- National Academy of Extension and Telecommunications (ENSPT)
- National Higher Technical School (ENTS)
- Centre for Continued Training (CFC)

Some private and public educational institutions have, however, launched some initiatives towards the integration of ICT in teaching:

- Gateway to the Information Superhighway for Youth, a project supported by the institute of new technology in information and training (intif.francophonie.org)
- The Internet Resource Center of the Distance Education Center of Côte d'Ivoire (CED-CI), part of the World Bank's GDLN network (The CED-CI specialises in continued training administered by Côte d'Ivoire, with technical, instructional, and financial support from the World Bank. It offers the exchange and sharing of knowledge through video-conferences and e-learning.)
- Occasional private initiatives to promote ICT (Internet Day Celebration, for example)
- SchoolNet Côte d'Ivoire, a branch of SchoolNet Africa (www.schoolnet africa.net)

While a number of ICT projects exist within higher education, elementary and secondary schools remain largely marginalised because of the low priority accorded to social issues by current policies.

The regional centre for computing, Centre Informatique Régional de Côte d'Ivoire, (CIRC) under the supervision of the Ministry of Technical Schools and Vocational Training, is responsible for ICT in the academic and research sectors.

Current ICT Initiatives and Projects

MEN/DIPES/SDGI: Ivorian School Computer Project, 2006-2007

The Direction of Computing, Planning, Evaluation and Statistics (DIPES) under the supervision of the Central Filing and Computer Management office (SDFCGI) is experimenting with computer-related technologies in 29 pilot schools for the academic year 2006-2007. The activities of this programme include:

- Offering an ICT skills course in an ordinary classroom with hands-on training in a computer lab
- Computer skills training for teachers
- Equipping the pilot schools
- Defining an ICT curriculum for learners
- Guidance and support for the local co-ordinating committee.

For more information: www.simenci.org

Ciscolabs

Ciscolabs and NetSolutions is a new enterprise aims to reduce the digital gap by taking advantage of regulatory changes underway in West Africa and Senegal.

BAOBAB Cyber Villages

The BAOBAB Company was established to develop a network of ICT service centres in sub-Saharan Africa. BAOBAB has a collective approach to improving access to ICT tools among associations, co-ops, small businesses, and liberal professions. It also develops relevant content for users.

Assafad

Côte d'Ivoire is the seat of Assafad (African Association for African Training). It hosts several projects in tele-education and is also involved in the francophone project Olympus. It acquired equipment a few years ago and faculty were trained as specialists in distance education. But like all the francophone countries that benefit from grants and financial aid from the Francophone Communities Agency, training has been in steady decline since 1998.

Implementing ICT in Education: What Helps and What Hinders?

Table 5 provides a summary of the current stage of ICT development in Côte d'Ivoire in terms of enabling or constraining features in the education system.

Table 5: Factors Influencing ICT Adoption

Factors	Enabling Features	Constraining Features
<i>Policy framework and implementation</i>	The Ivorian government considers ICT a priority and has conceived a national strategic	There is an absence of well-thought-out policies, and effective projects for the integration of ICT

Factors	Enabling Features	Constraining Features
	plan for the development ICT infrastructure.	in schools.
<i>Advocacy leadership</i>		The political crisis prevailing does not help for the advocacy of ICT promotion.
<i>Gender equity</i>		Girls and women have little access of to ICT due to under-schooling.
<i>Infrastructure and access</i>		Equipment is lacking in education institutions; limited Internet access for large numbers of people in urban and rural areas; and no fast access to reliable and high-cost Internet service.
<i>Policy and collaborating mechanisms</i>	A leading policy scheme is available at the ministry level for computer-related technologies that facilitates access to information.	
<i>Human resource capacity</i>		Human resources in ICT are undeveloped.
<i>Fiscal resources</i>		Computer equipment is costly, partially because of customs taxes.

General References

Odounfa, A. UNESCO. 2003. Le défi de l'éducation pour tous en Côte d'Ivoire. Schema Directeur de l'informatique a l'école. www.simenci.org/pdf/ieticeschemadir.pdf
 Education & Youth. UNECA. <http://www.uneca.org/adf99/adf99education&youth.htm>
 UNECA ITCA. <http://www.uneca.org/itca>
 All Africa. <http://www.allafrica.com>
 IFN. <http://www.intif.francophonie.org>

Notes

1. The World Factbook 2007. <https://www.cia.gov/cia/publications/factbook/geos/ml.html>
2. Côte d'Ivoire, Wikipédia. http://fr.wikipedia.org/wiki/C%C3%B4te_d%27ivoire;
http://afrique.droits.apc.org/index.shtml?apc=s21825e_1
3. World Bank, April 2003 Report on ICTs in Côte d'Ivoire, contributed by Kadia Georges Aka, Specialist in Business and Entrepreneurial Development, and ICT Consultant for Côte d'Ivoire Center of Distance Education (CED-CI) of the World Bank GDLN network.
4. Plan de Développement de l'Infrastructure Nationale de l'Information et de la Communication 2000-2005, National Information Society Initiative (AIS).
http://www.uneca.org/aisi/nici/Documents/cote_d_ivoire_niciplan.doc
5. Situation des Télécommunications en Côte d'Ivoire, Agence des Télécommunications de Côte d'Ivoire.
http://www.atci.ci/pages/situation_telecoms.htm
6. ICT Policy in Côte d'Ivoire, The Association for Progressive Communications (APC).
http://afrique.droits.apc.org/index.shtml?apc=s21825e_1

7. Informatique à l'école, Ministère de l'Education Nationale. <http://www.simenci.org/infoecole.php>
8. Report conducted by Kadia Georges Aka, Business and Entrepreneurial Development Specialist, ICT Consultant for the Distance Education Center of Cote d'Ivoire (CED-CI) for the World Bank GDLN network.

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