

## ICT in Education in the Republic of Congo (Congo-Brazzaville)

by Babacar Fall

June 2007



Source: *World Fact Book*<sup>1</sup>

*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.

The findings, interpretations and conclusions expressed herein are entirely those of the author(s) and do not necessarily reflect the view of *infoDev*, the Donors of *infoDev*, the World Bank and its affiliated organizations, the Board of Executive Directors of the World Bank or the governments they represent. The World Bank cannot guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply on the part of the World Bank any judgment of the legal status of any territory or the endorsement or acceptance of such boundaries.

It is expected that individual *Country Reports* from the *Survey of ICT and Education in Africa* will be updated in an iterative process over time based on additional research and feedback received through the *infoDev* web site. For more information, and to suggest modifications to individual *Country Reports*, please see [www.infodev.org/ict4edu-Africa](http://www.infodev.org/ict4edu-Africa).

## Overview

The Republic of Congo has recently developed an official ICT policy co-ordinated by the Committee for the Promotion of Information Technologies in Congo (COPTIC). One of the priorities is to set up a national plan for ICT infrastructure, the lack of which, along with the high cost of computer products and services, is hindering the development of ICT applications in several social sectors, including education. A recent lowering of custom fees has helped to alleviate the problem somewhat. Several distance education initiatives are being developed to provide students and businesses in the Congo with an opportunity to access advanced quality training.

## Country Profile

Congo-Brazzaville, or the Republic of Congo (as opposed to Congo-Kinshasa or the Democratic Republic of Congo), is an equatorial African country bound by the Atlantic Ocean and Gabon on the west, Cameroon and Central African Republic on the north, and the Democratic Republic of Congo on the east and south.

Congo-Brazzaville extends over 1,300 kilometres from the north to the south, from the Atlantic Ocean to the Central African border along the Congo River. Its natural resources (water, forest, and minerals) are plentiful but poorly exploited due to the low population.<sup>ii</sup>

Congo's petroleum resources are administered by a state petroleum company (National Society of Petrol of Congo or SNPC). Since 1976, oil refinement has been based in Pointe-Noire, the economic capital of Congo, which accounts for 90% of the state revenue and constitutes the same percentage of exports.

Table 1 provides some selected socio-economic indicators for the country.<sup>iii</sup> Table 2 offers some comparative data on population and education.<sup>iv</sup>

**Table 1: Socio-economic Indicators: Republic of Congo**

Indicator	
Area	341,821 km <sup>2</sup>
Capital	Brazzaville
Population (2005)	4 million
GDP per capita (2006)	\$1,300 (2006)
GDP growth rate in 2005	+7.7%
Expected GDP growth rate for 2006	+6.6%
Inflation in 2005	+3.0%

**Table 2: Population and Education Data**

Indicator	2000	2004	2005
Total population	3.4 million	3.9 million	4.0 million
Population growth (annual %)	3.2	3.0	2.9
Total life expectancy at birth (years)	51.4	52.5	...
Total fertility rate (births per woman)	6.3	6.3	...
Infant mortality rate (per 1,000 live births)	81.0	81.0	...
Total HIV prevalence (% of population, ages 15 to 49)	...	...	5.3
Total primary completion rate (% of relevant age group)	...	66.4	...
Primary school enrolment (% gross)*	72.7	88.7	...
Secondary school enrolment (% gross)*	32.4	38.6	...
Tertiary school enrolment (% gross)*	5.0	...	...
Ratio of girls to boys in primary and secondary education (%)**	84.5	90.2	...

\*Percent of gross is the number enrolled as a percentage of the number in the eligible age group.

\*\*Ratio of girls to boys is the percentage of girls to boys enrolled at primary and secondary levels in public and private schools.

## The Education System

The Congolese education system is regulated by law 25/95 (November 17, 1995), modifying School Law 008/90 (September 6, 1990).<sup>v</sup>

The education system consists of the formal and the non-formal sectors and is divided into the following four levels:

- Optional pre-school education, three years
- Primary education lasting six years ending with a final diploma: the Certificate of Primary and Elementary Studies
- Secondary education, assured by trade centres and educational institutions (Also included in this level is general secondary education in technical secondary schools and professional secondary schools. Secondary education from six to seven years is divided into two cycles: the first lasts for four years, and the second lasts from two to three years.)
- Higher education offered at Marien Ngouabi University made up of 11 institutions: five colleges, three schools, and three institutes

## ICT Policies

According to the United Nations Economic Commission for Africa (UNECA), only Congo Brazzaville currently has a real policy in terms of ICT, co-ordinated by the Committee for the Promotion of Information Technologies in Congo (COPTIC).

The 1997 law abolished the monopoly of the National Office of Telecommunications (ONPT), beginning an era of liberalisation of the telecommunication sector. The National Plan for Information and Communication Infrastructure (NICI) has been completed. The General Management of Central Post Administration (DGACPT) is the telecommunication regulation authority.

This plan states the national priorities concerning telecommunications and develops an institutional framework for the public policies in the subject. The statutory context is evolving towards the privatisation of SOTELCO, the Congolese Office of Post and Telecommunications (OPT).

## **Infrastructure<sup>vi</sup>**

The telecom infrastructure is at a very low level of development. The Société de Télécommunications du Congo (Sotelco) is the main provider of basic telecommunication services.

The licensing system for VSAT in the Congo uses a novel strategy: Sotelco can be designated as the recipient for the satellite circuit charges, in which case it adds 5% before passing them on to the user. Alternatively, if Sotelco is not included in the arrangements, an annual licence fee of about USD\$8,000 is required, as well as a monthly fee of about USD\$3,300.

Lack of sufficient international bandwidth is still a major problem for many countries, including Congo-Brazzaville, which has less than 256 kbps. There are currently only 200 dial-up Internet subscribers and one Internet service provider in the country. The Republic of Congo hosts one of the Regional African Satellite Communications (RASCOM) projects (<http://www.rascom.org/index.html>) which was born at the end of the 1980s. This organisation aims to meet African countries' telecommunication needs by constructing a specific satellite system. Supported by UNIDO and UIT, the project has developed rapidly. ALCATEL SPACECOM has been appointed as a partner and ALCATEL SPACE was given the task of building the first satellite. It has now been completed and was launched in March 2006.

Congo is connected to the global network only by VSAT because it is not linked to the SAT3 cable. Congo has five Internet service providers:<sup>vii</sup>

- SOTELCO
- Afripa Telecom ([www.afripatelecom.net/](http://www.afripatelecom.net/))
- Celtel Plus (affiliate of CELTEL Congo)
- Gam 7
- Raga (<http://www.raga.net/>), which operates through VSAT from Kinshasa

The Internet is provided through the satellite with a bandwidth of 64 kbps and by Wi-Fi through the Local Loop Radio (BLR). Therefore, the connection is rather slow.

The United Nations for Development Program (UNDP) is planning a project for installing an Internet node in Brazzaville.

Cyber cafés have had rapid success, with low connection fees (between 0.75 and 2.30 euros per hour). The number of Internet users is about 5,000, according to a 2002 UNDP estimate, while the telephone density is about 0.6% for fixed lines and 14% for mobile. In 2004, the number of Internet users was up to 36,000, and the estimated number of PCs was about 17,000.

Table 3 provides a snapshot of the state of national ICT infrastructure in the country.<sup>viii</sup>

**Table 3: ICT in the Republic of Congo**

Indicator	2000	2004
Telephone main lines (per 1,000 people)	6	2
Mobile subscribers (per 1,000 people)	20	115
Population covered by mobile telephony (%)		65
Internet users (per 1,000 people)	0	4
Personal computers (per 1,000 people)	3	4
Households with television (%)	6	6

## ICTs in Education

Although it is obvious that equipping schools with information technology is becoming an urgent necessity, whether at the administrative or instructional level, tremendous means are required to meet this need. Software and standard operating systems such as Windows dominate, even though Space Creators and the Committee for the Promotion of Information Technologies in the Congo (COPTIC) urges the government to adopt the free Linux software.

The Republic of Congo faces a serious lack of telecommunication infrastructure, which hinders the development of several social sectors such as education. At the celebration of the national days of telecommunication, some recommendations were given, mainly, to develop distance learning programmes to back up training and harmonise international collaboration in order to reinforce local expertise for further training of the Congolese population.

## Current ICT Initiatives and Projects

In Congo, distance training is an opportunity offered to students of all levels and to companies to equalise access to high-quality training in order to promote global development. Three projects, all dealing with distance learning, are currently being set up with the assistance of the Francophone University Agency, the Swiss Qualilearning Company, and an Italian Engineering System respectively.

### **Francophone Virtual Campus**

Started in December 2003, this project is in process of completion. It is being installed with the assistance of the Francophone University Agency (AUF). Its aim is to set up the premises and check the conformity between the existing parts and the electric current supply. The Internet signal bandwidth used now at the university is very narrow and does not fit the installation requirements of this campus, which means the university has to make the premises and furniture available so that the AUF can bring in the necessary expertise and material.

### **CoseLearn**

The CoseLearn project is implemented by the Swiss Qualilearning Company with assistance from the Swiss Agency for Development and Cooperation (SDC). The main objective of the project is to promote distance and e-learning in selected French-speaking countries in Africa by progressively implementing a virtual campus in partner universities.

### **FAD**

The FAD (distance training) project is an initiative of the Italian engineering system company S.N.C. in partnership with AZUR Development, a Congolese NGO. The aim of the project is to set up centres and offer distance training in real time. There will be 10 centres established each with 15 work stations and a video-conferencing room. The project is receiving assistance from the EU, the Italian Cooperation, and some French and Italian universities. Courses already available include computer science and business management.

## **Implementing ICT in Education: What Helps and What Hinders?**

Table 4 provides a summary of the current stage of ICT development in the Republic of Congo in terms of enabling or constraining features in the education system.

**Table 4: Factors Influencing ICT Adoption**

<b>Factors</b>	<b>Enabling Features</b>	<b>Constraining Features</b>
<i>Policy framework and implementation</i>	The National Plan for Information and Communication Infrastructure (NICI) has been completed.	No ICT in education policy exists.
<i>Gender equity</i>		Inequality in access exists between the genders.
<i>Infrastructure and access</i>	Local telecommunication providers offer Congolese people access to the Web and many opportunities to remove themselves from isolation.	Energy sources in rural zones are lacking and there are weak telephone networks.
<i>Human resource capacity</i>		There are insufficient numbers of people with ICT skills.
<i>Fiscal resources</i>	Customs tariffs on computer equipment have been temporarily waived.	Finances are scarce and the high cost of equipment is high.
<i>Learning resources</i>	The Internet makes valuable public and private services accessible to all users because there are no physical barriers. It also reinforces the openness to the world as well as the national heritage identified as important database available on the Web.	

## General References

Distance Education for Teacher Training in Francophone African Countries. UNESCO-AUF training, September 14-16, 2004, Dakar, Senegal.

Economic Commission for Africa. 2003. Electronic Strategies in African Policies, National, Sectoral, and Regional Strategies and Plans for Information and Communication Technologies. October. Institut de Statistique de l'UNESCO.  
[http://www.uis.unesco.org/profiles/FR/EDU/countryProfile\\_fr.aspx?code=1780](http://www.uis.unesco.org/profiles/FR/EDU/countryProfile_fr.aspx?code=1780)

NOVATECH. 2006. Investment opportunities in the ICT and e-business Services Sector in Central and West Africa. November 7-9, 2006. Bamako, Mali.

Republic of the Congo. Ministry of Primary and Secondary Education. Department of Literacy. National Action Plan for Universal Education (PNA/EPT). Brazzaville, November 2002.  
<http://www.congo-site.com/pub/fr/index.php>

Les Depeches de Brazzaville. <http://www.brazzaville-adiac.com/index.php>

Guide Commercial & Economique de l'Investisseur en République du Congo.  
<http://www.congo-site.biz/v1x/invsthome.php>

ICT Policy in Dem. Rep. of Congo. APC.  
[http://afrique.droits.apc.org/index.shtml?apc=s21839e\\_1](http://afrique.droits.apc.org/index.shtml?apc=s21839e_1)

République Démocratique du Congo : de gros efforts pour la formation à distance.  
<http://thot.cursus.edu/rubrique.asp?no=25212>

African governments on the Internet.  
[http://www.uneca.org/aisi/nici/country\\_profiles/africagovinternet.htm](http://www.uneca.org/aisi/nici/country_profiles/africagovinternet.htm)

Congo, Rep. Data Profile . The World Bank.  
<http://devdata.worldbank.org/external/CPProfile.asp?CCODE=COG&PTYPE=CP>

Congo.  
[http://www.novatech2006-proinvest.org/fiches\\_pays/Fiche\\_Congo\\_Novatech.pdf](http://www.novatech2006-proinvest.org/fiches_pays/Fiche_Congo_Novatech.pdf)

The World Factbook 2007.  
<https://www.cia.gov/cia/publications/factbook/print/cf.html>

Republique-Congo.com .  
<http://www.republique-congo.com/>

Site Officiel d'Information et de Conseil sur le Congo Brazzaville.  
<http://www.congo-site.com/pub/fr/index.php>

---

## Notes

<sup>i</sup> Republic of the Congo. Wikipedia. [http://en.wikipedia.org/wiki/Republic\\_of\\_the\\_Congo](http://en.wikipedia.org/wiki/Republic_of_the_Congo)

<sup>ii</sup> Wikipédia. <http://fr.wikipedia.org>

<sup>iii</sup> Banques des Etats de l'Afrique Centrale (BEAC). [www.beac.int/index.html](http://www.beac.int/index.html)

<sup>iv</sup> World Development Indicators database. April 2006.

<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20535285~menuPK:1192694~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html>

<sup>v</sup> Republic of the Congo. Minister of Primary and Secondary Education. Council of Literacy National Action Plan for Universal Education (PNA/EPT). Brazzaville. November 2002.

<sup>vi</sup> Distance Education for Teacher Training in Francophone African Countries. UNESCO-AUF workshop, September 14-16, 2004, Dakar, Senegal.

<sup>vii</sup> Congo. NOVATECH. [http://www.novatech2006-proinvest.org/fiches\\_pays/Fiche\\_Congo\\_Novatech.pdf](http://www.novatech2006-proinvest.org/fiches_pays/Fiche_Congo_Novatech.pdf)

<sup>viii</sup> World Development Indicators database. April 2006.

<http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20535285~menuPK:1192694~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html>

*Given the constantly changing nature of the Internet, we suggest that you copy the document or web site title (and author or organization name, as appropriate) of a resource below into your favorite search engine if a link on this page is not working.*