

ICT in Education in Angola

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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

Three decades of civil war have decimated the country's infrastructure and education system with large sections of the population still in dire straits, and high numbers of school-age children are out of school. Amid these challenges, the government has established a National Commission on Information Technology, now called the National IT Agency, which has been given the task of developing a national ICT policy. There are a few programmes and projects specifically on ICTs in education in the country, although these are largely small-scale, short-term initiatives.

Country Profile

Angola was ravaged for three decades up until 2002. During this prolonged period of civil war, over 330,000 Angolans fled to neighbouring countries, and many more were displaced within Angola. The war involved widespread destruction of infrastructure, and land mines now cover much of the land. Tension remains high in the oil-rich Cabinda Province, which has struggled for independence from Angola since the mid-1970s.

According to the IMF, the Angolan economy grew by 14.7% in 2005 (compared to 4.6% for other countries in sub-Saharan Africa) mainly due to increased oil production and diamond exports. Angola is the second-largest producer of oil in sub-Saharan Africa, and the recent rise of oil prices may push GDP growth as high as 26% in 2006. Despite good economic potential, Angola remains plagued by poverty and poor education.

Four years of peace have re-opened Angola to international lending, enabling the government to invest in social services. Three million refugees, primarily women and children, have returned to their homes in Angola since the end of the civil war in 2002. Most have resettled in isolated and heavily damaged provinces, taxing local resources. Unexploded mines left over from the war are a serious threat to safety and prevent agricultural renewal in some parts of the country.

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

Table 1: Socio-economic Indicators: Angola

Indicator	
Population	15.9 million (2005)
Languages	Official language: Portuguese Local languages: Kikongo, Chokwe, Mbundu, Kwanyama.
Economic activity 2005 (% of GDP)	Agriculture: 7.9% Industry: 65.8% Services: 26.4%
Human Development Index	161 (out of 177 countries) (2004)
Per capita gross national income (US dollars)	\$930 (2004); \$1350 (2005)

Education System

The civil war has exacted a toll on the education system in Angola. Primary education lasts eight years in a 4-2-2 cycle. School-going age is generally six years, but may also be later. The first four years are compulsory. Secondary education offers a choice of either general or vocational education. General education lasts for three years from the age of 14, while vocational education lasts for four years from the age of 14.³ There are also two-to three-year specialised pre-university courses running in parallel.

Angola has one state university, the University of Angola. The rector is appointed by the president of the Republic and the directors of faculties and schools are appointed by the Minister of Education on the rector's recommendation. Angola also has a private institution, the Universidade Católica de Angola (Catholic University of Angola) which was established more recently.

Teacher education takes place in various teacher-training institutes. Primary school teachers are trained for two years in primary teacher training centres for first-level primary and in Institutos Medios Normales (IMN) where studies last for four years. Teachers for the first cycle of secondary education are trained in teacher-training schools. There are also physical education schools. Second-cycle secondary school teachers are trained at the Instituto Superior de Ciências de Educação (ISCED) of the University of Angola. Higher education teachers are trained at the university.

ISCED also offers distance education programmes to upgrade unqualified teachers. Teachers can also follow distance education courses to upgrade their professional training.⁴

Table 2 provides a quantitative perspective of some selected system indicators.⁵

Table 2: Selected Education Data

Indicator	
Primary enrolment (% gross)*	64.3 (2000)
Secondary in Education (% gross)*	14.7 (2000)
Tertiary enrolment (% gross)	0.8 (2004)
Gender parity index (GPI)**	0.66 at university

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

**GPI = gross enrolment ratio (GER) of females, divided by the GER of males and indicates the level of access by females to education compared to males. A GPI of 0.66 suggest there is limited gender parity at universities.

Primary and secondary enrolment ratios are low. There are very few secondary schools in Angola – only about 70. Millions of children do not attend school for reasons ranging from poor water and sanitation to inability to pay school fees. Schools are plagued by

overcrowded or multi-age classrooms, teacher shortages, and inadequate learning materials and infrastructure. While school enrolment rates increased slightly in 2005, the country faces the huge challenge of raising the number of children in primary school from an estimated 2.1 million in 2003 to 5 million by 2015 to achieve universal primary education – while keeping up with the rapid growth of the school-age population.

HIV/AIDS prevalence rates are low in Angola relative to neighbouring countries in Africa, but so is awareness of how the disease is spread. Even teachers remain largely uninformed. The government has made fighting HIV/AIDS a national priority, setting up agencies to provide counselling and testing and to teach prevention techniques. The nationwide Defend Life, Learn About AIDS campaign trained 9,500 teachers and distributed educational manuals to 600,000 students, informing them about the risks of AIDS and other sexually transmitted infections.

Infrastructure

Angola's infrastructure has been decimated by the civil war. Until 2002 there were a total of 90 000 fixed lines, mainly in Luanda and urban areas. The government is trying to rectify the lack of infrastructure by introducing competition to the state owned mobile provider in 2001 and the introduction of four fixed line operators. Since the licensing of mobile operators in 2000, the country has grown from 20 000 users (on the incumbent's network) to over 150 000.⁶

Table 3 provides a snapshot of the state of national ICT infrastructure in Angola.⁷

Table 3: ICT in Angola

Indicator	
Fixed-line subscribers	94,3000 (2005)
Mobile subscribers	1.094 million (2005)
Internet users (per 1,000 people)	172.0 (2004)
Television broadcast stations	6 (2000)
Radio stations	AM 21; FM 6; shortwave 7 (2000)

The liberalisation of the telecom sector began in 2001 with the licensing of a second GSM operator to compete with the national mobile operator. In July 2002 four new competitive fixed-line operators were licensed to compete with the national monopoly operator, using third-generation (3G) wireless technologies and WiMAX to provide advanced services. This sector will now become one of the most competitive and liberalised in SADC, resulting in a rapid investment in communications services and benefits to society at large. This should encourage costs to fall and service take-up to increase rapidly.⁸ Mobile market penetration is also still relatively low at around 14%, despite rapid growth since the introduction of competition in 2001. A third mobile licence was expected in 2006⁹.

ICT Policies

Angola does not have a dedicated ICT in education policy. However, the government created the National Commission for Information Technology in 2002. The commission's first task was to elaborate a plan for the development of ICT called the Strategy for the Development of Information Technology 2000–2010. In the strategy, the National Commission argues that it is necessary to “set out the whole problem that implicates the massive introduction of information technology,” a situation that will affect the whole economic and social structure of Angola.”¹⁰

The commission has also created an excellence center, CENAPATI, to implement the projects in the plan and to take on responsibility for the academic and scientific backbone. Considering the private sector enterprises as essential partners, the commission held a meeting in July 2002 in Luanda with several business agents and settled on collaboration schemes with them for the next years. The commission, through CENAPATI, is conducting projects in e-government and establishing telecentres.¹¹

In 2006, the government announced the establishment of a new information technology agency to replace the National Commission. The new institution will try to create places of quality for the use of information technologies that will be the model of analysis and reproduction.

Current ICT Initiatives and Projects

A number of humanitarian initiatives have been under way over the past few years to reconstruct Angolan economy and society. In 2002 it was estimated that there were just over 300 NGOs, aid agencies, and CBOs active in Angola working to avert a potential humanitarian disaster of famine.¹²

According to the International Development Research Centre (IDRC), an estimated 8,000 NGO workers and volunteers are engaged in social rebuilding and food distribution activities in more than 20 centres around the country, representing an enormous workforce that requires the latest in communications technology. Inmarsat Mini-MSAT phones, ham radio, HF backbone networks, VSAT stations, e-mail, and the humble long-distance telephone line have been utilised to support these efforts. The preferred mode of communicating with field staff is e-mail. E-mail is also being carried over SAT-phones, HF and ham radio equipment, and slow-speed dial-up lines.

Programmes and projects aimed at reconstructing Angola's education system are largely supported by UN development agencies such as UNICEF, UNESCO, and UNDP as well as organisations such as Save the Children. Some of these broad education projects incorporate specific references to ICTs, albeit in a limited fashion. They include the UNICEF-supported Quality Primary Education Project which incorporates the establishment of an EMIS system, as well as the recently announced centre for the study of science supported by Japanese co-operation, announced by the Angolan Deputy Ministry of Education.¹³ Similarly UNESCO has committed to support teacher development in Angola which will incorporate distance education programmes.¹⁴

Some of the major initiatives related to ICTs in Education are listed below.

AngoNet

The AngoNet project was initiated in Luanda in 1989. For a number of years AngoNet provided Angola's only public access to international electronic networks by e-mail through non-profit APC servers in Europe and Southern Africa.

With the emergence of commercial Internet service providers (ISPs) in the late 1990s in Angola, AngoNet dedicated itself to providing a non-profit network service for organisations and individuals working in social and economic development and humanitarian assistance programmes. AngoNet is a project supported by Development Workshop and funded by UNDP. It aims to increase the capacity of non-profit, civic, and development organisations working in Angola through improved communications and information exchange. Its partners include:

- Development Workshop
- Church Action in Angola
- Christian Aid
- Dutch Institute for Southern Africa
- One World Action
- CONGA Comité das Organizações Não-Governamentais Angolanas
- Programa das Nações Unidas para o Desenvolvimento Sustentável-UTCAH
- Unidade Técnica de Coordenação de Ajuda Humanitária
- Usuários da AngoNet, Rede de APC (rede internacional de ONGs)

Its regional networks include Sangonet in South Africa, MANGO in Zimbabwe, Ebonet, which is an Angolan ISP, SARDC Centro de Documentação Regional de Africa Austral, AIA Africa Information Afrique, and Cronica Informativa sobre a Africa Austral.

Specific services offered by AngoNet include Internet connectivity provision, Web-hosting, Web projects based on created templates and support for telecentres in Luanda, Huambo, and Malange who offer Internet access, photocopying, and document typing services to their communities.

For more information: www.angonet.org

Discovery Channel Global Education Fund

Discovery Channel Global Education Partnership is a non-profit, public, charitable organisation headquartered in the US and dedicated to reaching across the global information divide with the tools and training necessary to extend the power of technology and information to under-resourced communities around the world.

In Angola, the DCGEP partnered with the Angolan Ministry of Education and Culture to reach out to teachers, children, and students of all ages by providing technology and resources that help increase engagement with – and commitment to – the learning

process. These resources include video machines, televisions, and education content that can be used in the classroom to support learning and teaching. The partnership increases teacher effectiveness by equipping instructors with interactive and creative teaching methodologies that employ relevant video programming to complement curricular objectives.

With the support of the Cabinda Gulf Oil Company, the partnership established six learning centres in Cabinda province, and with Chevron's support, 13 learning centres in Bengo and Huambo provinces. These particular provinces experienced heavy fighting during the war. The learning centre project is designed to reach out to vulnerable, internally displaced populations.

Chevron is also supporting the project's expansion into Luanda and Zaire provinces. Historically, Zaire has been one of the least developed and least populated of Angola's 18 provinces.

For more information: <http://www.discoveryglobaled.org>

Quality Primary Education Project

UNICEF launched a Quality Primary Education Project that forms the core part of their 2005-2008 Education Programme and which focuses on the formal primary education system. This project is designed to be a stepping stone to the achievement of Education for All by 2015.

Support is being provided to establish national goals, strategies, and programmes, with a view to expanding access to child-friendly, effective, and healthy schools. This includes improved teacher-training strategies, mechanisms for supervision, targeted community-involved school construction (including water and sanitation facilities), and standards on hygiene and sanitation for different types of schools, as well as strategies to reach children in isolated areas.

The project also aims to support innovation in primary schools through the development of teaching and learning materials to implement education reform at the national level, as well as specific support for implementation in targeted municipalities.

Greater community involvement in the development, planning, managing, monitoring, and evaluation of education within their communities is promoted, with schools being used as a focal point for change at the community level. The training provided will be focused on participative methodologies to be used in the classroom, as well as gender-sensitivity issues and the promotion of girls' participation.

For more information: http://www.unicef.org/angola/education_1302.html

EMIS

A nationwide rapid school mapping and data collection exercise is being undertaken as a first step in the development of a comprehensive education management information system (EMIS). The data refers to teaching staff, student enrolment, and school infrastructure.

Specific qualitative studies focusing on girls' education and its characteristics in Angola will be undertaken to complement the collection of gender-disaggregated education data through school mapping and the development of an EMIS. In combination with a national seminar on girls' education to be held in the second half of the year, support will be provided to the launch of the United Nations Girls' Education Initiative (UNGEI) in Angola.

UNGEI will result in a girls' education priority action plan and support will be provided to implement selected priority actions for girls' education, including the required capacity building of the gender unit and raising gender awareness throughout the education system and society.

Through the Schools for Africa Initiative, and to address one of the most serious constraints to school attendance, new construction is being conducted in approximately 350 locations, and 1,150 schools are due to receive rehabilitation such as the installation of windows, roofing, and sanitation facilities. Refreshment in-service training is planned for 78,000 teachers to increase the quality of instruction. Attention is also paid to life skills education, including gender sensitivity, hygiene education, prevention of HIV, and mine awareness.

Schlumberger Excellence in Education Development (SEED)

SEED is a global non-profit education programme that serves students aged 10 to 18. SEED has grown out of the spirit of goodwill and close ties between Schlumberger people and the communities where they live and work.

SEED began in 1998 as a way for Schlumberger employees, spouses, and retirees to share their time, experience, and passion for learning and science through a variety of volunteer activities with younger generations of learners.

SEED provides access to technological and knowledge resources for underserved students and teachers in communities where Schlumberger people live and work. These include a range of project-based activities provided through an extensive multilingual Web site, hands-on science education workshops, and collaborative international projects. In these ways, SEED is building a learning community that creates connections among youth around the world and expands their understanding of science. In addition, the SEED Action Fund provides financing to young people for local initiatives addressing sustainability issues in their communities.

SEED plans and carries out activities through different programmes, one of which is the School Network that invites qualified underserved schools to apply for funding that

supports infrastructure (providing technical and financial support to connect underserved educational organisations to the Internet), collaboration (facilitating opportunities to participate in projects, events, and partnerships with other educational organisations), and sustainability (helping schools ensure continuity of the programme after the initial grant).

Through this programme, SEED supported 188 schools serving more than 225,000 children in 37 countries worldwide. In Angola, SEED supported two primary schools where it established along with its West and South Africa GeoMarket, computer rooms including power, light, desks, computers, and a new telephone line for the network connection. Twenty PCs were reconfigured with Portuguese operating systems and would receive similar donations by Schlumberger. It appears that this plan did not materialise.

For more information: <http://www.seed.slb.com>

SchoolNet Angola

The history of SchoolNet Angola dates back to 1998-1999 with a kick-start process initiated by the Angola Educational Assistance Fund (AEAF). Through this process five schools have been provided with two PCs connected to the Internet in partnership with the local ISP, Ebonet.

The IDRC's Acacia Program has supported the SchoolNet Angola initiative since 2000 to some extent. The initial three schools are still on-line with the university and with a broadband radio connection to the service provider, Ebonet. The services were being used by pupils, although not to the full capacity of the dedicated 256kbps radio links. Ebonet is keen to support further development of this concept and is working with several oil companies that are prepared to offer financial support for system set-up and establishment in other schools. A fourth school was equipped with 20 PCs and Internet access thanks to a donation by Schlumberger, an international oil company.

SchoolNet Africa subsequently assisted with the formal re-establishment of SchoolNet Angola in 2004 in partnership with OSISA. A SchoolNet champion was identified to lead the process in Angola and five schools were initially involved. The programme also included teacher training, supported by Microsoft West East and Central Africa's Partners in Learning Program in collaboration with SchoolNet Africa's Global Teenager Project, and Mtandao Afrika Project. SchoolNet Africa also partnered with Multichoice Africa in support of teacher training in the use of ICTs. A computer installation and training project was considered at a centre in Benguela Province with the support of OSISA and SchoolNet Namibia. These attempts have not been successful. The SchoolNet Angola project is now defunct.

Catholic University of Angola

Angola's first private institution of higher learning, the Catholic University of Angola (CUA), was established in the early 1990s with the support of His Eminence Alexandre Cardinal do Nascimento and the Roman Catholic Church of Angola. The Catholic

University has a Centros Informatica (Information Centre) which is a computer centre available to its students and lecturers. The Catholic University also has a computer engineering department (CED) on its main campus which historically hosted a programme in partnership with Angolan Education Assistance Fund (AEAF) which provided computer skills and continuing education programmes to the community at large. Its goal was also to build capacity among students to conduct ICT-related research.^{xv}

Angola also has one state university, the Universidade Angustinho Neto (http://www.uan-angola.org/pgcategory_acerca.php), and an education institution, the Universidade Jean Piaget de Angola. (www.netangola.com/piaget). Both have active Web sites.

For more information: www.ucan.edu

Implementing ICT in Education: What Helps and What Hinders?

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

Table 4: Factors Influencing ICT Adoption

Factors	Enabling Features	Constraining Features
<i>Policy framework and implementation</i>	Angola has a national ICT policy, but little reference is made specifically to education. The emphasis is on building schools, acquiring desks, developing teachers, and encouraging more learners to participate in the education system.	Angola does not have a dedicated national policy on ICTs in education.
<i>Advocacy leadership</i>	The Angolan government has a dedicated agency tasked to address its national ICT strategy.	Within education, there are no dedicated structures advocating and promoting ICTs in education and some attempts over the past few years have been aborted as a result.
<i>Gender equity</i>	A sizeable number of education projects supported by UN agencies have earmarked dedicated projects for the advancement of girls and women. The UNICEF-supported EMIS project also aims to track girls' participation in schools.	There are no explicit references to ICT access to promote gender equality or women and girls empowerment.
<i>Infrastructure and</i>	The national ICT infrastructure in	The national ICT infrastructure

<i>access</i>	general appears to be improving with the advent of liberalisation of the ICT market in 2002.	remains very poor in Angola. Access to ICTs in education system remains very low and the scale of projects under way are very small, involving few schools.
<i>Collaborating mechanisms</i>		While there are attempts at collaboration between Ministries of Education and other ministries, the private sector, and civil society institutions, there are no explicit collaborating mechanisms in place.
<i>Human resource capacity</i>	Civil society organisations have created some capacity with the support of AngoNet.	There remains a very limited layer of skilled personnel and champions within the Angolan government and even less in the Ministry of Education.
<i>Fiscal resources</i>		There remains significant dependence on external donor funding for ICT projects including from UN agencies and the private sector.
<i>Learning content</i>	Some projects have developed localised versions of their programmes in Portuguese. These include the SEED and Discovery Channel projects.	Local contextually relevant learning content is currently lacking, although there are attempts by the ministry to try to address this.
<i>Procurement regulations</i>		There are no stated procurement regulations to support greater ICT access.
<i>Attitudes</i>	Some of the leaders in government recognise the importance of ICTs for development and have projected a positive attitude.	Positive attitudes among some champions in government and civil society have not translated into larger-scale, successful ICT programmes in the education sector.

Notes

1 <https://www.cia.gov/cia/publications/factbook/geos/ao.html>

2 Ibid.

3 http://www.childrenslegalcentre.com/shared_asp_files/uploadedfiles/AD3799E5-1C4A-46A8-A714-5C02C74A1DF5_Angola.pdf

4 http://www.hospitalityguild.com/Education/School_Systems/angola.htm

5 EFA Global Monitoring Report. 2007. UNESCO. http://portal.unesco.org/education/en/ev.php-URL_ID=49591&URL_DO=DO_TOPIC&URL_SECTION=201.html

6 Miller, J., S. Esselaar, and T. James in “Feasibility Study for an Information Society Program for the African, Caribbean and Pacific (ACP) Countries (Grant Agreement # 1237)” 2005. ANNEX IV: Regional Report - Africa

<http://72.14.235.104/search?q=cache:Czhx8LDuv9wJ:www.infodev.org/en/Document.100.aspx+schoolnet+angola&hl=en&ct=clnk&cd=8&gl=za>

7 CIA World Fact Book 2007 <https://www.cia.gov/cia/publications/factbook/geos/lt.html>

http://hdr.undp.org/hdr2006/statistics/countries/country_fact_sheets/cty_fs_LSO.html

8 Acacia in Angola. 2002. IDRC http://www.acacia.org.za/acacia_in_angola.htm

9 <http://www.budde.com.au/Reports/Contents/Angola-Telecoms-Market-Overview-Statistics-Forecasts-1008.html>

10 Miller, J., S. Esselaar, and T. James in “Feasibility Study for an Information Society Program for the African, Caribbean and Pacific (ACP) Countries (Grant Agreement # 1237)” 2005. ANNEX IV: Regional Report - Africa

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11 <http://www.uneca.org/aisi/NICI/Angola/angola.htm>

12 Acacia in Angola. 2002. IDRC http://www.acacia.org.za/acacia_in_angola.htm

13 “Angola: Education Deputy Minister Visits Kenya.” 5 March 2007. Angola Press Agency.

<http://allafrica.com/stories/200703051331.html>

14 “UNESCO Reaffirms Support to Angola Education System.” March 2007. Angola Press Agency.

<http://www.angolapress-angop.ao/noticia-e.asp?ID=508235>

xv Nardin, F. “Using Information and Communication Technologies to Enhance Educational Goals in Developing Countries: the Case of the Catholic University of Angola.” 2001. www.aeaf.org/papers/2001-05-12-wcee-abstract.pdf

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