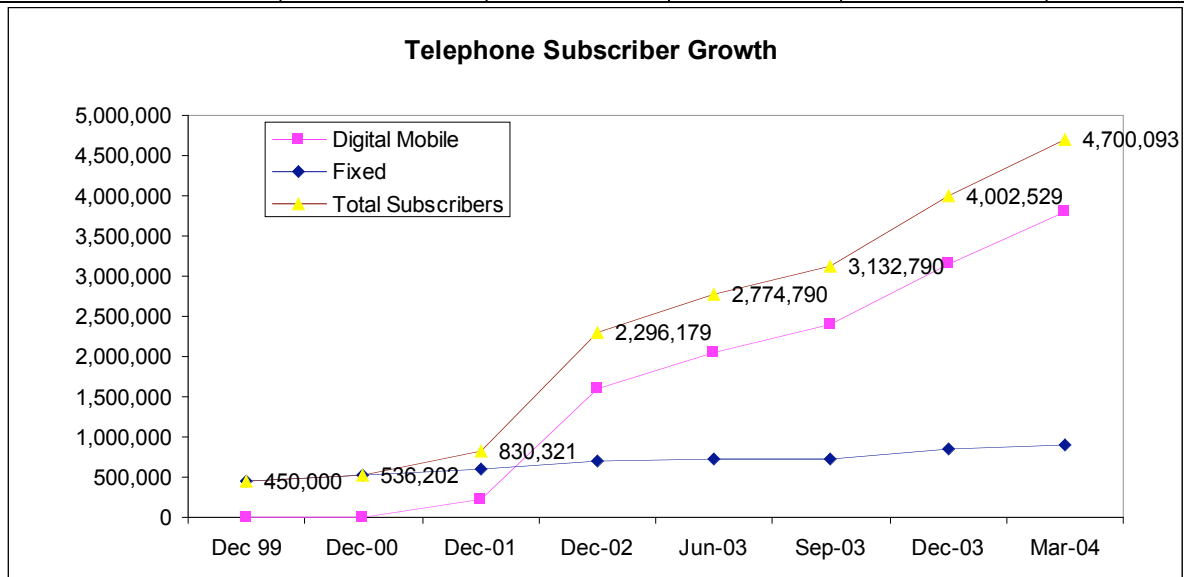


State of ICT Infrastructure in Nigeria

	Dec-00	Dec-02	Jun-03	Dec-03	Mar-04
Number of Connected Fixed Lines	450,000	702,000	724,790	850,000	888,854
Number of Connected Digital Mobile Lines	None	1.6m	2.05m	3.1m	3.8m
Number of National Carriers	1	2	2	2	2
Number of Operating ISPs	18	30	30	35	35
Number of Active Licensed Fixed Line Operators	9	16	19	30	30
Number of Licensed Mobile Operators	1	4	4	4	4



Nigeria is the most populated country in African, with approximately one in six Africans being Nigerian. Nigeria has a population of about 140 million, with over 250 different ethnic groups. English is the official language of Nigeria, although 250 other languages are spoken in the country.

Nigeria is the world's 5th largest oil producer, with an economy dominated by oil exportation. Nigeria is presently a democracy. However, the military governments that ruled between 1965 and 1999 were unsuccessful in creating other areas for the Nigerian economy to flourish, eventually resulting in corruption and unequal distribution of wealth. Over two-thirds of the Nigerian population is in poverty, with a budget of less than \$1 per day. The combination of corruption and severe money mismanagement has Nigeria among the 20 most impoverished countries in the world.

Despite Nigeria's unstable economy, the country has attracted over \$5 billion worth of Foreign Direct Investments in the ICT sector over the last five years. According to the Nigeria Investment Promotions Commission (NIPC), foreign investments are growing increasingly secure and popular in Nigeria because of the "investment friendly atmosphere prevalent in the country." The country's size and population are very conducive to such goals.

With increasing globalization, the Nigerian government's main concern is devising an action plan for the countries Information and Communication Technology sector. The question is whether ICT can truly flourish in Nigeria and whether or not such growth can better Nigerians. Despite the population, Nigeria's growth in the ICT sector has been poor. For example, in its 6th year of operation, Microsoft Nigeria ® consists only of 20 members, though the company started with four members.

The main issue facing Nigeria and its ICT program is "quality manpower." The primary reason that ICT has not grown in the country is attributed to the fact that Nigerian workforce lacks essential computer literacy and IT preparation. Poverty is an obstacle for the computer educational program, in a country where education itself, has become highly controversial.

Government districts administrate over the Nigerian educational system, although the private sector has become increasingly popular. Government schools are notorious for unsuccessful curriculums and unconcerned teachers, making private schooling a seemingly wiser alternative. Most of the people who own private schools genuinely care about a solid educational system.

Even in Nigeria's poorest government districts, an estimated 75 percent of schoolchildren attend private schools. For most Nigerian parents, such educational expenses pose as major hardships. Parents must determine which factor to sacrifice: their children's education or money they do not have. Most parents choose to sacrifice the latter. The majority of parents are pleased with their decisions, as private school children tend to score higher on standardized tests than government school children. Most schools, both private and government, do not offer ICT training programs.

Nigeria has the responsibility of investing in ICT programs, which in turn will better the nation and its inhabitants. If government schools incorporate ICT training into their curricula, the state of the public school system will improve. A greater number of students can attend public schools, eliminating the financial burdens placed on their parents.

Presently, the only IT professions come from formal educational backgrounds, which serves to further widen Nigeria's socioeconomic system. Every child should have an equal chance at securing and improving both his educational and professional careers. Students, if given a chance, could serve both Nigeria and abroad.

A recent article in CYBER SCHUUL NEWS (040403-87) predicted that Nigeria needs over 3,000 telecommunications engineers to promote and preserve the growth of the telecommunications market. The estimated number of unemployed graduates in the same field is in the range of a few thousands, although less than 1.5% of these graduates were prepared to enter the telecommunications workforce. The other 98.5% require extensive retraining. These statistics serve to reinforce the fact that there is a need to produce a technologically proficient ICT workforce.

As of December 2005, there were over 19,000,000 serviced cell phones in Nigeria. The mobile cellular market has grown because landline telephones require much more maintenance and continued expansion, which has been unsustainable. Cellular phones have been easier to incorporate, also providing useful in a number of ways. Nigerian adolescents who have WAP-enabled phones and smart phones have taken advantage of Internet connectivity. Wireless enabled cellular phones also allow young people to connect their personal computers to the Internet, which is made possible by GPRS (General Pocket Radio Service.) So there is definitely potential and interest in the ICT sector for Nigerian youth.

The main way to institute a strong Nigerian IT educational program is make sure that all schoolchildren are proficient in computers and technology. Nigeria currently has 11 Internet Service Providers, with national satellite access to European Satellite Internet providers. Most Nigerian towns have at least 5 Public Internet Cafes, which are privately owned and operated, and run on the European satellite system. Personal computer and Internet access, however, remain limited to the small percentage of the rich. Of the total Nigerian population, this number is estimated at 100,000.

School children need access to their own personal computers, which will be costly. MIT currently has the \$100 Laptop Initiative that has the goal of providing "one laptop for every child." According to an MIT Media Lab article, Nigeria, along with China, Egypt, and Thailand, initially displayed interest in the \$100 laptop initiative.

Although money is an issue for the impoverished nation, Nigeria can fund computer education with initial seed funding, government subsidies, and private-sector investments. Nigerian educational institutions and businesses should be responsible for collaborating with international technological institutions and global businesses to gain funding. Current estimates predict that Nigeria to invest at least \$4 billion to solidify the ICT infrastructure. Microsoft Nigeria® has also initiated programs to solicit the donation of used computers for both Nigeria and Ghana. Nigeria and outside institutions would also be responsible for soliciting individuals who could both shape the computers and technology education curriculum, and later teach the concepts to students. MIT and other engineering students would also be excellent candidates for instructors. Successful students could matriculate to Nigeria's Universities or the world's top technological institutions.

ICT will prove to be beneficial in terms of improving Nigeria's educational system and allowing students a better chance to receive solid educations. The production of a technologically advanced workforce will lead to greater ICT growth in Nigeria, with

the potential to improve military technology and telecommunications. ICT would be a feasible means of improving media communications, disseminating useful information to the masses. Skilled ICT professions would be well equip to solve and improve IT problems in Nigeria and the rest of the world. All investments in Nigeria's technology programs would prove to be profitable.

MIT OpenCourseWare
<http://ocw.mit.edu>

ES.259 Information and Communication Technology in Africa
Spring 2006

For information about citing these materials or our Terms of Use, visit: <http://ocw.mit.edu/terms>.