Chapter 1
Bridging the Digital Divide: Leveraging Early Strides in Nigeria

Iwara I Arikpo
University of Calabar, Nigeria

Adenike Ososikan
University of Ibadan, Nigeria

Abel Usoro
University of the West of Scotland, UK

ABSTRACT
Information and Communications Technology (ICT) has become a fundamental global phenomenon today. It has provided developing countries with a unique opportunity to compete in a global economy that was hitherto beyond their reach. ICT has greatly reduced physical obstacles, increased market access and trade efficiency, and provided a competitive stimulus among countries in a global information society. Digital divide is the ICT gap between developing and developed countries.

This paper outlines the current state, opportunities and potentials in the use of ICT for education, R&D, and governance in Nigeria. It presents several ICT initiatives and the roles of some ICT bodies capable of bridging the digital divide between Nigeria and the developed world. Challenges facing the continuing development of ICT in the country are identified, and solution strategies to harness the full potential of ICT as an indispensable vehicle for socio-economic development in Nigeria are also discussed.

INTRODUCTION
The global nature of Information and Communications Technology (ICT) provides developing countries with a unique opportunity to compete in a global economy that was hitherto beyond their reach. ICT has become a vital engine of any economy, be it developing or advanced. It is an essential infrastructure that promotes the development of other sectors such as agriculture, education, industry, health, banking, defence, transportation and tourism. It is indispensable in times of national emergencies or natural disasters.
(as we saw Americans use it during the 9/11 attacks, Tsunamis, Japanese used it during the March 2011 earthquakes, etc). It considerably reduces the risks and rigours of travel and rural-urban migration. ICT has the potential to reduce physical obstacles, increase market access and trade efficiency, as well as provide a competitive stimulus among countries, in a global information society.

It is important to note that digital divide does not only refer to the information technology gap between countries, it covers the gap between individuals as well as companies. For example, for individuals, negative impacts may range from inconvenience to more serious outcomes, such as employment disadvantage due to lack of familiarity with ICT (UNCTAD, 2011). Over the years, several initiatives have been conceived by the government of Nigeria and other agencies to develop the ICT infrastructure so as to bridge the digital divide. Prominent among these initiatives is the licensing of the Global System for Mobile Communication (GSM) operators and Second National Operator (SNO), Public Service Network (PSNet), Nigerian Universities Network (NUNet), National Universities Commission DataBase (NUCDB) among others. There have also been massive investments in ICT infrastructure by Nigerians and non-Nigerians alike, the activities of which cover the whole country. Besides, the government of Nigeria and other agencies like the International Centre for Theoretical Physics (ICTP), Italy, NIIT, Oracle, APTECH, Microsoft, and many more, have trained thousands of professionals in ICT and related areas, to provide necessary knowledge and skills to support ICT ventures in the country.

According to the Information Economy Report – 2007/2008 (UNCTAD, 2008), between 2001 and 2004, the Nigerian Communications Commission (NCC) issued 523 new telecommunications licenses of various types, including many that commission companies to invest in developing parts of the physical network interconnections and exchanges. However, not all of these licenses have been fully operational and many types of licenses are held by a single company. Nigeria stands today as the most competitive fixed-line market in Africa, featuring a second national operator (SNO, Globacom) and over 80 other companies licensed to provide fixed-telephony services (Internet World Stats, 2011). A number of companies have also been licensed as GSM operators, the major ones of which are MTN, Globacom, Bharti Airtel (formerly Zain), Visafone, EMTS, M-Tel, Multi-Links, Starcomms, Reliance, M-Tel, Intercellular, etc, as well as over 100 Internet Service Providers (ISPs) and VSAT companies.

Despite these massive investments in ICT infrastructure and ICT-capacity building, Nigeria is still not fully connected to the Global Village, because it lacks the critical drive and strategies to harness the full potential of ICT for the socio-economic development of the country.

**ICT INDICATORS IN NIGERIA**

Nigeria’s population is estimated to reach 166 million people by October 31 (Nigeria Daily News, 2011), about 70% of whom live in underserved and remote areas of the country. It also has the fastest growing ICT market in Africa and its telecommunication penetration has improved from 400,000 connected lines in 1996 to 111.5 million in 2010. Teledensity rose dramatically from 0.4% in 1996 to 63.11% in 2010, exceeding the International Telecommunication Union’s (ITU’s) minimum recommendation of 1% (NCC, 2011). Nigeria has the most lucrative telecommunications market in Africa, growing at twice the African average (Odufuwa, 2006).

According to Nigerian Communications Commission Monthly Subscriber Report (May 2010 – April 2011), Nigeria’s GSM subscriber base increased to 83,643,903 at the end of April, 2011, with an increase of over two million from the 81,195,684 recorded active subscriber base for the month of December, 2010. The latest results