
Computer Education as Instrument for National Development and Security

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Abstract

Computer education encompasses the innovations that are applied in gathering and processing data into information which can be utilized in various developmental processes. Information per say, is the live wire of every nation, institutions and organizations. The relevance of computer education cannot be over emphasized in Nigeria especially in this present political dispensation when democracy, security and national development still present very serious challenges to her existence. This paper explored the need for computer education and the role computer plays in national development and security of the nation.

Education is the bane of every national development. In the words of Mahuta(2009), education is a purposive, conscious psychological, sociological, scientific and philosophical process; the result of which brings about individual development. Development does not just spring out of the blues, rather it is the product of efforts of the citizens in a given society. It is only the educated mind that can make positive impact in the community. Ukeje (2000) asserted that education is so powerful that it can heal or kill! It can build or tear apart, it can lift up or impoverish. This suggests why a nation must ensure a solid foundation for her educational system.

Education has a very strong relationship with national development. This is of course why the literacy level of a country is used as one of the measures of level of development in that country. Newsman (2002) in trying to highlight the relationship between education and national development postulated thus, “for the purpose of considering the relationship between the state of development of a nation and its educational performance, UNESCO, in its 1995 World Education Report, uses the level of literacy as a key indicator? Newsman further stated that there is a connection between the level of literacy a country achieves and her level of economic development

Illiteracy is the single most important factor holding back economic development in most developing countries.

There is a universal agreement as regards the roles played by education in the development of individuals and the society at large. It is an essential factor in human life and in virtually all aspects of human endeavor. All over the world, education is regarded as an important tool for achieving national objectives. It is a venture that every individual and every society needs. It is a veritable instrument for both human and national development. Education improves the quality of human life and empowers people to solve all kinds of social and environmental problems. Education is the pivot on which the survival, growth and development of any nation rests. Ukeje in Arikwandu and Ifesi (2003) defined education as “transmission of what is worthwhile to those who become committed to it. A training that involves the acquisition of knowledge, abilities, development of character, mental power and a continuous process in which one step prepares the way to the next”. Where education occurs, there must be a change of behavior due to what is acquired.

Education is therefore a great necessity for human existence on the planet earth because it helps to prepare, equip and secure learners for all aspects of life. It provides learners with the basic foundation to function and develop in their society. Education is a venture that every individual and every society needs. It has both intrinsic and extrinsic values. Education is synonymous with development and also one of the most important instruments of change.

National Development

Hornby (2001) described a developed country, society, etc. as that having many industries and a complicated economic system. It also defines development as the gradual growth of something so that it becomes more advanced, stronger, etc. National development could be defined from two different perspectives: human resources and infrastructural development.

Human development is the aspect of national development that is achieved through education and capacity building. This is corroborated by a section of the National Policy on Education 2004, which asserts that the Federal Government of Nigeria has adopted education as instrument par excellence for effective national development (Nigeria, 2004).

Development is a process that affects virtually all aspects of life in the society. To Ololobou (2003), development is the transformation of the social, cultural, political and economic life of society to bring about an improvement in the quality of life of the people. Todaro (1977) perceived development as a multidimensional process involving the re-organization and re-orientation of the entire social and economic system. Furthermore, Todaro explained that in addition to improvement in income and output, development involves radical changes in institutions, social and administrative structures as well as in popular attitudes and sometimes customs and beliefs. To

Inyamah (2010), for any nation to be termed developed, a high percentage of her citizenry must have been educated. That is, transformed in every aspect of life. To Krishna (1997), there will not be a fundamental transformation in a society unless the individual is transformed and this comes through education. Education as posited earlier is one of the most dynamic instrument of change both for the individual and the society at large. A nation's overall development is inextricably tied to its education system. The Federal Government of Nigeria believes in the indispensable power of education towards the overall development of the Nigeria society. Hence National Policy on Education (NPE, 2014) states thus:

- *Education is an instrument for national development; to this end, the formulation of ideas, their integration for national development, and the interaction of persons and ideas are all aspects of education;*
- *Education fosters the worth and development of the individual for each individuals sake and for the development of the society;*
- *There is need for functional education for the promotion of a progressive, united Nigeria, to this end, school programmes need to be relevant, practical and comprehensive, while interest and ability should determine individual's direction in education;*
- *There is need for equality of educational opportunities to all Nigerian children irrespective of any real or imagined disabilities, each according to his/her ability (NPE, section 1:4).*

Everywhere in the world, both individuals and nations are investing on education. This is mainly because education is perceived as a tool for national development and a solution to problems facing humanity. Krishna (1997) observed that in the 20th century, human society world over was beset with tremendous problems of natural disaster, famine, epidemics, primitive transportation system, inefficient communication, lack of healthcare, poor agriculture, etc. Education has helped drastically in reducing these through the development of knowledge and power that was necessary to make the transition to modern society in which we live today. This is evident in the way we are living now, which is a drastic change from what it was in the last century. This implies that problems facing the society can be solved through greater knowledge, better organization, more efficiency and power which are all pointers to both human and national development. According to Inyamah (2009), in this age and time, education aims and produces human beings that are intelligent, knowledgeable and hopeful leaders in their various fields of endeavours. These qualities will goes a long way in promoting national development.

The second aspect of national development is that which is achieved through the presence of physical infrastructure. These are the basic systems and services that are necessary for country or an organization, for example industries, buildings,

transportation systems, water and power supplies and administrative systems. However, these infrastructural entities are manifestations of knowledge acquired from the educated minds.

Role of Computer in National Development

There is virtually no aspect of human endeavor that has not tested the impact of computer. Indeed, computer has become an indispensable wheel of development. No industrialized nation has so far made it without computer. Its application has in no small measure been contributing to the ever-widening gap of development between developed and the developing nations. The use of computer is virtually universal as it is being applied in every field of endeavor, even in fields as diverse as business and medicine, physics and law, engineering and psychology etc.

As our society is becoming more complex with time, computer is equally getting complex in response to the resulting challenges. It is therefore very necessary that Nigeria in her bid to keep pace with this rapidly developing technology and bridge the digital divide, should adopt computer education in a manner that will best serve the needs of the Nigerian society.

Computers, the back bone of Information Technology have already made their mark in the industries, commerce and education all over the world. In the early days, their size, cost and complexity meant that they were available only to large, rich corporations and well-endowed universities and research establishments. As they have become smaller, cheaper and more reliable, they have become available to small businesses, schools and colleges and in developed countries, to individuals in their own homes. As computers have become affordable, many countries, inspite of restricted education budgets, have found the resources to introduce sophisticated microcomputers into their schools and colleges.

The widespread diffusion of computer and computer oriented businesses throughout the economy and society according to Nzeako (2004), has dramatically changed the engineering career landscape, created unprecedented business and investment opportunities in virtually all sectors of the economy and society, changed the business structure in the economy, and raised many issues and hopes for computer professionals and other numerous allied professionals.

National Security

National security is the requirement to maintain the survival of the nation-state through the use of economic, military and political power and the exercise of diplomacy. Measures taken to ensure national security include:

- *Using diplomacy to rally allies and isolate threats.*
- *Marshalling economic power to facilitate or compel cooperation.*
- *Maintaining effective armed forces.*

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- *Implementing civil defense and emergency preparedness measures (including terrorism legislation).*
- *Ensuring the resilience and redundancy of critical infrastructure.*
- *Using intelligence services to detect and defeat or avoid threats and espionage, and to protect classified information.*
- *Using counter-intelligence services or secret police to protect the nation from internal threats.*

The relatively new concept of national security was first introduced in the United States after World War II, and has to some degree replaced other concepts that describe the struggle of states to overcome various external and internal threats.

The concept of national security became an official guiding principle of foreign policy in the United States when the National Security Act of 1947 was signed on July 26, 1947 by U.S. President Harry S. Truman. The majority of the provisions of the Act took effect on 18th September 1947, the day after the Senate confirmed James V. Forrestal as the first secretary of Defense. Together with its 1949 amendment, this Act:

- *Created the National Military Establishment (NME) which became known as the Department of Defense when the Act was amended in 1949.*
- *Created a separate Department of the Air Force from the existing U.S. Army Air Forces.*
- *Subordinated the military branches to the new cabinet level position of the secretary of Defense, and*
- *Established the National Security Council, a central place of coordination for national security policy in the Executive Branch, as well as the Central Intelligence Agency, the United States' first peacetime intelligence agency.*

During the Cold War's bipolar system, states were relying on the two superpowers to guarantee their national security. But no system lasts forever. Communism collapsed and sovereign states emerged without a guarantor. States had to build a nation, maintain national security and rely on themselves.

Following the terrorist September 11, 2001 attacks in the United States, and the subsequent terrorist incidents around the world, national security became a paramount concern for governments and societies.

Role of Computer in National Security

The computer and innovations based on computer technology has been developed over the years and also applied in national security. A lot of such devices were variously applied during the Gulf War, which was extensively fought with nuclear weapons.

Artificial Intelligence, an aspect of Computer Science has variety of applications. Crime control, prevent and detection in all fields of business borders on national security. Crime prevention is one area which has benefited from the development of the intelligence machine. For example the BEHAVE research group, in partnership with the Joseph Bell Centre for Forensic Statistics and Legal Reasoning developed a system capable of anticipating criminal behavior by analyzing video sequences.

Proven solutions like COPLINK are in use today that provide the deepest level of tactical analysis required by federal officials to prevent terrorism coupled with the user friendly interface local law enforcement required to fight crime.

The GSM phone is another innovation that is based on computer technology which is used extensively for communication across the globe. The mobile phone is another tool that can be used to detect and prevent crime. Kidnapping which is the latest crime in Nigeria, especially in the South-East, is being combated with the use of information retrieved from the GSM operators like MTN, GLO, Zain, Etisalat, etc.

Also available are various models of vehicle tracking gadgets that is used to locate motor vehicles snatched by criminals. This gadget is capable of monitoring the location and movement of vehicles and also go further to demobilize such vehicles.

RiskNet is the flagship product in the aiCorp's Suite of the art fraud management systems. RiskNet is a payment card fraud screening solution for acquirers, issuers and payment processors. Evolved over the last nine years, RiskNet is a powerful and intuitive system. It continues to keep pace with new fraud trends, card scheme standards and technological developments. It monitors all card schemes (e.g. VISA, Mastercard, Amex, Diners) and types (i.e. credit, debit and charge).

Conclusion

The education system of any nation still remains the foundation upon which the individual and societal growth, advancement and transformation rests. Every country should as a matter of necessity adapt computer education in a way it will serve her in the provision of national security and development more to the benefit of the society. As a result of this, immediate attention should be given to computer education. This attention should be concentrated more on the area of making our education system an instrument for security and development of not only the citizens of Nigeria but the entire Nigeria society. Until this is done, the very basis of our economic, political, social and physical development will be negatively affected.

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