Chapter 16
Literacy and Space Technology In Nigeria

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ABSTRACT

This paper examines literacy as it affects Space Technology in Nigeria. The place of digital technology enables a proper understanding of literacy in Nigeria. The paper is divided into four parts. The first section redefines literacy in order to understand the possibilities of meanings based on the perceptions of James (1984), Onukaogu (2008), Arua (2009) and Ajayi (2009) that conceptualize the complex nature of literacy and its indispensability. The second part visualizes the role played by literacy in educating technological advancement in Nigeria, bearing in mind that in 1999, the Federal Government of Nigeria approved the Nigerian Space Policy and the implementation of the space program. The third section underscores the socio-economic relevance of literacy in enhancing global space technology for Nigeria while the fourth section relates Ajayi's (2009) projection in a meta-critical manner, so that Nigeria can become a world power. The theoretical framework for this paper is the "Transformational Theory". The theory opines that "learning occurs as a result of transformation of participation in culturally valued activities" such as space technology. The paper emphasizes practical findings to stimulate excellence and literacy relevance in science and technology.

INTRODUCTION

From the traditional perspective, literacy has been projected as the ability to read and write at considerable adequate level of proficiency that facilitates communication. As a result of global literacy arising from globalization, we could mention technological literacy, visual literacy and literary literacy which underscore the essence of adult and adolescence literature (Ajayi, 2009). Literacy is a complex phenomenon that has affected virtually all aspects of human endeavours. The complexities have addressed all aspects in a way that it lends axiomatic credence to the understanding of man's activities in stimulating excellence. However:

This complex situation is further exacerbated by the growing influences of multimedia technologies and space technology which have produced a shift in what counts as texts and what it means to be literate. It is no longer just the ability to read and write; it is now viewed as the ability to construct and understand the different possibilities of meanings made available by differing textual forms associated with diverse domains such as the internet, video-games, visual images, graphics and layouts (p. 585).

In broad terms, literacy is the ability to make and communicate meaning from and by the use of a variety of socially contextual symbols. Within various levels of developmental ability, a literate person can derive and convey meaning, and use his knowledge to achieve a desired purpose or goal that requires the use of language skills, be they spoken or written. A literate person can mediate his world by deliberately and flexibly orchestrating meaning from one linguistic knowledge base and apply or connect it to another knowledge base. For example, knowing that letters symbolize sounds, and that those sounds form words to which the reader can attach meaning, is an example of the cognitive orchestration of knowledge a literate person conducts. Literacy is "not in isolated bits of knowledge but in students' growing ability to use language and literacy in more and broader activities". The definition of literacy is dynamic, evolving, and reflects the continual changes in our society. Literacy has, for instance, expanded to include literacy in information and communication technologies and critical literacy (http://www.bridgew.edu/library/cags_projects/ldubin/Definition%20of%20Literacy.htm).

Technology has taken different shapes in facilitating literacy in different ways. These ways are either individualistic or collective. Space technology, however, is a new invention in Nigeria that has showcased reading and writing in a more globalized phenomenon. To understand the

space and literary framework, we shall visualize the relationship between technology and literacy. According to the UNESCO's space research, many changes are now taking place throughout the world and they are of enormous concern and relevance to adult learning. Adults are under pressure to develop and utilize new knowledge frameworks, skills and value systems. It is time for literacy providers to have the courage to experiment, to try out new alternatives and renew the assault on illiteracy. Innovations in technology can improve literacy programs and accelerate the spread of literacy. This forges an inevitable link between the use of technology and literacy. With reference to the results of a panel discussion on "Literacy and Technology", held during the CONFINTEA V (Hamburg, 14–18 July 1997) as quoted by UNESCO, The term technology here embraces educational *technologies such* as the Internet, TV, interactive video and radio. The aim of the panel discussion was to explore the relationship between literacy and technology, and the potential role of technology as a tool in literacy provision.

The important question was not whether, but how technology can adapt to changing demands. The panel was chaired by Jan Visser, UNESCO LWF, Learning Without Frontiers (LWF), UNESCO, France. Mohamed Maamouri, International Literacy Institute (ILI), Tunisia, served as discussant. The remaining panel members were: Alan Tuckett, the National Institute of Adult Continuing Education, England and Wales, (NIACE), UK, Minda Sutaria (INNOTECH, Philippines), Shigeru Aoyagi, Asia Pacific Cultural Centre (ACCU) UNESCO, Japan, Sibiri Tapsoba (IDRC, Senegal), and Christopher Hopey, National Centre on Adult Literacy, USA. An important observation is that technological innovation with costs of technology facilitates the introduction of technology into literacy. The real concern is how to ensure that literacy providers have the capacity and total will to apply the technology appropriately (http://www.unesco.org).

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