Digital Natives and Digital Immigrants:
A Study of Information Technology and Information Systems (IT/IS) Usage between Students and Faculty of Nigerian Universities

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ABSTRACT

It is presumed that Nigerian students and teachers have been unable to find effective ways to use technology in the classroom and other aspects of their teaching and learning. Yet, considerable debate remains over the most efficient techniques and procedures to measure students and faculties information technology and information systems (IT/IS) use. In most developing countries, the challenges associated with carrying out IT/IS measurements are different from those in developed countries, as are the methods for selecting appropriate IT/IS content. This study gathered data using a five item demographic variable and a fifty item questionnaire to measure student and faculty academic IT/IS use in one private and one public university in Nigeria. This study is based on the 191 responses received to the questionnaire. The results reveal significant differences between the academic use of IT/IS by students and faculty. This groundbreaking study recommends that universities become valuable and proactive actors in the provision of technology based learning, teaching and research for students and academic staff to foster an effective academic environment aimed at meeting millennium development goals (MDG) for education. This scholarly discourse has implication for researchers, education practitioners, planners, policy makers and government.

Keywords: Academic Activities, Computer Systems, Faculty, Nigeria, Policy Makers, Technology, University Students

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INTRODUCTION

Studies of inequality in access to and use of information communication technology (ICT) among students and faculty (lecturers) have over the years attracted significant attention by researchers, policy makers and the global community at large (Toledo, 2007; Margaryan & Littlejohn, 2008; Waycott et al., 2010; Bennett & Maton, 2010; Feeney, 2010; Anne, Seppo & Shoji, 2010; Margaryan, Littlejohn & Vojt, 2011; Nwokeocha, 2011; Ololube, 2011). IT/IS have become key educational tools and have had a revolutionary impact on how we see and live in the world (Keba et al., 2008; Ololube, 2009; Ololube et al., 2012). Globally, IT/IS is having a revolutionary impact on educational methodology (Ifinedo, 2006; Fan, 2010). However, this revolution is not universal and needs to be reinforced to reach a larger share of the world's population (Akdogan, 2009; Anne, Seppo & Shoji, 2010; Ololube, 2012).

In Nigeria, the academic landscape includes the teaching and learning process, along with educational programs and courses and the pedagogy or methodology of teaching; the research process, including dissemination and publication; and libraries and information services, including higher education administration and management (Beebe, 2004; Ololube, 2006b). There is no doubt that the best way to enhance excellent instruction in schools is through quality information technology (IT) and information system (IS) usage and integration, which is key in understanding the knowledge and skills required in teaching and learning today (Ololube, Ubogu & Egbezor, 2007; Afari-Kumah & Tanye, 2009).

Education is one of the most important institutions needed to ensure the well-being of a society. Because of its importance, education is a powerful instrument of social progress without which neither an individual nor a nation can grow professionally (Ololube, 2006a). To this end, the United Nations Educational, Scientific & Cultural Organization (UNESCO) strategic objectives in education include improving the quality of education through the diversification of contents and methods, and promoting experimentation, innovation, and the diffusion and sharing of information and best practices as well as policy dialogue (UNESCO, 2002). In a complex society like Nigeria, many factors affect IT/IS usage and integration making the use of an interdisciplinary and integrated approach necessary to ensure the successful development of Nigeria's economy and society (Moja, 2000; Mac-Ikemenjima, 2005). Of particular note however, is the fact that the development of IT and IS, its penetration and use in higher education programs, and its diffusion into education in general remains dependant on governmental policies (Ololube, 2006b).

Evidence (Tuomi, 2000) seems to suggest that in some countries and regions the access to computers is closing rapidly. Over the course of the last decade, especially in developed countries, millions of people have gained access to computers each year. However, access to computer exist between the educated and uneducated, privileged and underprivileged, developed and developing nations, and those living in rural and urban areas (Ololube, 2009).

Never in human history have there been so many people with access to computers, digital networks, and electronic communication technologies (Margaryan et al., 2011; Waycott et al., 2010). At any given moment, millions of university students are online whether at home, at school, at friends houses, or — if they have Internet access on their handheld devices or cell phones — almost anywhere. This pervasive use of technology tends to render students digital natives rather than digital tourists (Awake, 2008).

Information technologies are not without problems. Paramount among these is Internet safety as the Web has been exploited by all manner of unscrupulous individuals. Many websites feature explicit pornography and are relatively easy for the unwary to stumble upon. In the United States, 90 percent of youth said that they have had unintentionally encountered pornography online, in most cases while doing assignments. The web also provides easy access to sites that promote teen gambling. In Canada, nearly one in four males surveyed admitted to having visited such sites (Awake, 2008).

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