

## Chapter 20

# Challenges and Prospects of Information Communication Technology (ICT) in Teaching Technical Education towards Globalisation

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### ABSTRACT

*The relevance of Information and Communication Technologies (ICTs) in the field of Technical Vocational Education and Training (TVET) cannot be overemphasised in the knowledge-based and globalised society. The world of works is in as continuous a state of change as ICT itself, thus posing more challenges to the workers in the 21st century and the institutions responsible for their preparation. Therefore, this chapter discusses the challenges and prospects of ICT in teaching TVE towards globalisation. The chapter points out clearly the meaning, philosophy, and objectives of TVET, concept and types of ICT, the need for effective utilisation of ICTs and its role in TVET, the challenges and solutions to the effective utilisation of ICTs in TVET, and the prospect of using ICT in teaching TVET. The chapter concludes by suggesting solutions for proper planning, management, and effective utilisation of ICTs resources in TVET.*

### INTRODUCTION

A nation that is aspiring for greatness, self-sufficiency, political and economic emancipation cannot afford running away from effective technical vocational education and training (TVET) because of the importance of technical vocational education and training (TVET) to national development. For

the reason that, knowledge and skills in TVET are very essential to productivity and national development of any nation, Mulemwa (2002) pointed out that, the fast changing applications of technology and the global reliance on its processes and products in all areas of human endeavour have made TVET invaluable that any society or country without it, risk being alienated from the

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global village. TVET has become such a critical factor of economic and social development that life without it can no longer be contemplated. In addition to that, through TVET, nation develops its manpower in such areas as agriculture, forestry, health, engineering, architecture, and business, among others.

The globalisation and the rapid rate of technological changes on work places have informed the recommendation by United Nation Educational, Scientific and Cultural Organization (UNESCO) and International Labour Organization (ILO) (2002) that all technical and vocational education system in the 21st century should be geared towards lifelong learning, this requires that schools in addition to academic skills inculcate workplace skills in order to increase students' flexibility and job mobility which will make them adaptable to present and envisage changes. In Nigeria, there has been emphasis in recent times on improving TVE in tertiary institutions basically for combating unemployment and poverty, as well as improvement of the economic performance globally.

Successive Nigerian government recognises the potentials of information communication technology (ICT) in the school system. This is evidenced in the educational reform policies aimed at integrating the use of ICT in schools. According to Federal Government of Nigeria (FGN, 2000), the necessity for a national Information Technology (IT) policy became more obvious after the participation of the Nigerian delegation to the first African Development Forum on the Challenge to Africa of Globalisation in the Information Age held in Addis Ababa in October 1999. As a result, a national workshop on the National Information and Communication Infrastructure was held in Abuja in March 2000. The outcome was the production of a master plan for the development of national ICT programme (ICT, 2000). Some of the strategies of human resources development stated in the ICT policy are; Making the use of IT mandatory at all levels of educational institutions through adequate financial provision for

tools and resources; and developing relevant IT curricula for the primary, secondary and tertiary institutions. One of the objectives of these strategies is to restructure the educational systems at all levels to respond effectively to the challenges and imagined impact of the information age, and with these obvious challenges, TVET programmes have future prospects.

## **TECHNICAL VOCATIONAL EDUCATION AND TRAINING IN NIGERIA**

Educational attainment is recognised as one of the fundamental indicators of development of a nation. The world cannot think of development of a country without Technical and Vocational Education and Training (TVET). Olaitan, Igbo, Nwachukwu, Onyemachi and Ekong (1999) said that the task of technical education is the transmission of ideas, skills, values of work and environment and what individual can do with his or her life. TVET systems are therefore expected to produce a new breed of competent workforce who can compete and excel in a rapidly changing environment and improve the country's economy in globalised world. TVET makes the single largest contribution in developing human resources in this age of technology. TVET according to United Nation Educational, Scientific and Cultural Organization (UNESCO) (1999) comprise formal, non-formal and informal learning for the world of works. Young people, women and men learn and acquire knowledge and skills from basic to advanced levels across a wide range of institutional and work settings and in diverse socio-economic contexts.

In view of Thomson (2002) TVET is an instructional programme which include general studies, practical training for the development of skills required by the chosen occupation and related theory, the proportion of these components vary considerably depending on the program (voca-

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