

Convergence of Distance Education and Conventional Learning: Innovations and Developments at the Open University of Tanzania

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Abstract: *The Open University of Tanzania (OUT) undertakes instructional delivery using various blended learning media including print, ICTs, electronic platforms, enhanced face to face, special seminars and contact programmes. Initially, it was envisioned that the University will use a low resource teaching package, consisting of offline media. Admittedly, the blending of offline and online learning enhances significantly pedagogical effectiveness of the instructional methodology. Thus, in pursuing its Vision and fulfilling its Mission, a conventional learning institution like the University of Dar es Salaam (UDSM) subscribes to application of ICTs in the enhancement of academic delivery and management. Meanwhile, the Vision and Mission of both UDSM and OUT bear striking similarities, implying a convergence of distance and conventional learning. Employing desktop and descriptive research methods, the study explores innovations and developments at the OUT in the last two decades, with a view to demonstrating the salient trends of the phenomenon of the convergence, within the context of the three dimensions underlying the process of mainstreaming of distance education. They include the achievement of parity of esteem between conventional and distance education; the convergence of the means of instructional delivery, student groups, and types of institutions and the incorporation of distance education's constituent elements, particularly its philosophy of outreach, into the mainstream education system. The findings of the study show that concerted efforts have been made by both the OUT and UDSM to integrate online media in their instructional methodologies in the last two decades. In the specific case of the OUT, as a result of such innovations, print has been dislodged as the lead medium in distance education delivery. However, in spite of the convergence in instructional delivery, achievement of parity of esteem between conventional and distance education and the integration of distance education's constituent elements into the main education system are still out of sight. The study stresses that while indiscriminate adoption and employment of online learning will eventually undermine the vision and mission of distance education as well as conventional education institutions, careful selection and systematic application of the same will yield better results to both institutions.*

Key Words: Blended Learning, Open and Distance Learning, Mainstreaming Distance Education, Lead Medium

INTRODUCTION

This study explores innovations and developments at the OUT in the last two decades, with a view to demonstrating the salient trends of the phenomenon of convergence between distance education and conventional education. This will be done within the context of the three dimensions underlying the process of mainstreaming of distance education. They include the achievement of parity of esteem between conventional and distance education; the convergence of the means of instructional delivery, student groups, and types of institutions and the incorporation of distance education's constituent elements, particularly its philosophy of outreach, into the mainstream education system (Irele, 2005). We start by exploring the concept of blended learning as the basis of the convergence.

MEANING OF BLENDED LEARNING

Blended learning has been defined as the combination of offline and online learning. Like any other blend, blended learning works because it combines two things in a way that makes each better than they are on their own. In this case, teachers' talent and technology tools. Blended learning allows teachers to work directly and closely with individual students and small groups, by harnessing the adaptive power and precision of technology (Warner, 2013). Within this context, teachers symbolize conventional education while technology tools represent ODL mode of instructional delivery.

However, this perspective is both an unacceptable oversimplification of the nature of each of these instructional delivery methodologies. For example, besides teachers and lecturers physically present in classrooms, language and science laboratories, lecture rooms and theatres, conventional delivery of education is often supplemented by audio – visual technologies and materials. On the other hand, since the rise of the United Kingdom Open University (UKOU) as the World's pioneer Open University in 1969, “three way teaching” consisting of correspondence education, face to face contact sessions facilitated by teachers and lecturers physically present in classrooms, language and science laboratories, lecture rooms and theatres and instructional delivery through electronic media, has been adopted as the basic structure of instructional delivery in distance education. It can, therefore, be argued that “blended learning”, is neither a recent phenomenon nor a novel experience. In fact, it is a structural component of both conventional and ODL delivery modes.

As a result of developments in ICTs - particularly from 1991, second generation technologies (traditional ICTs like the telephone, Radio, TV, Audio and Video Cassettes), have been enriched by wider use of Web and Online technologies (modern ICTs). These developments have resulted in greater interactivity and much higher level of personalization through technology mediation and learning objects like desktop computers, laptops, ipads, mobile phones, etc (Kanwar, 2013). However, even with this enrichment, “blended learning” cannot be regarded as the basis of the convergence of these instructional delivery modes. On the contrary, available literature traces the basis of the convergence in the phenomenon of mainstreaming.

MAINSTREAMING

Among other sectors, the term “mainstreaming” is often used to capture distance education repositioning within traditional universities (Irele, *op.cit*). Repositioning has been pursued because the relationship between distance education and conventional education has always been ambiguous. Initially, distance education was put outside conventional education (Daniel, 1996). Later on, it was described as being on the fringe of education, hence, second rate (Holmberg, 1986; McIsaac, 1996; Jevons, 1987; Tait, 1999). Lately, based on its growing use in traditional universities, distance education is described by practitioners in conventional education as being “mainstreamed” into the mainstream education system (Thompson, 1999; Allen and Seaman, 2003). As a result of “mainstreaming” distance education in traditional universities, it has been noted that these “ivory towers” are being transformed into “brick and click” institutions (Materu, 2006). Viewed within this perspective, the convergence of distance education and conventional education means the phasing out of the former. Thus, blended learning is defined as “a formal education programme in which a student learns - at least in part, through the online delivery of content and instruction, with some element of student control over time, place, path and/or pace and at least in part at a supervised brick – and – mortar location away from home” (Bailey, et al., 2013). However, there are major issues that militate against the mainstreaming of distance education into all relevant areas of the traditional university system as well as educational mainstream. Peters (2002) provides instructive insight into the tensions that arise when distance education systems are introduced within traditional universities. He notes:

They have to deal and come to terms with fixed academic structures and conventions which are normally resistant to change and restrict flexibility. They have to assert themselves when trying to innovate and modernize not only the learning-teaching system, but also the mission and the sense of direction of the institution in order to adapt it to the requirements of a rapidly changing society (Ibid:146).

This comment underscores the structural differences between the two systems that are potentially problematic for the integration of distance education into the mainstream education system (Irele, *op.cit*). Meanwhile, early views of distance education as a distinct and separate form of education has largely been replaced by the more acceptable explanation that it is simply "a component of the wider enterprise of education and training" (Daniel, 1996:59). The core distance education characteristics have been identified as the separation of teacher and learner, the use of technology to bridge communication and the presence of an institution (Keegan, 1996). Moore and Kearsley (1996) have re-packaged and re-presented these characteristics from a systems' perspective by emphasizing the role of the institution. Taking the cue from the systems' perspective, distance education system is not a series of separate entities, such as course content, and course design and development, but a system of interrelated components that function together under the auspices of “organizational and administrative arrangements” (Moore and Kearsley, *op.cit*: 2). But what is mainstreaming? OED Online (1989) defines mainstreaming as the incorporation of a phenomenon into the mainstream activity. In distance education, mainstreaming is said to reflect the process

of integrating distance education into conventional education (American Council on Education, 1996).

A review of the literature reveals three dimensions to the mainstreaming of distance education or convergence with conventional education. The first covers the achievement of parity of esteem between conventional and distance education (Jevons, op.cit; Lewis et al, 1999). The second addresses the convergence of the means of instructional delivery, student groups and types of institutions (Miller, 1990; Hall, 1994; Keegan, 2000). The third is the incorporation (or integration) of distance education constituent elements, namely its philosophy of outreach, use of technologies and its teaching strategies, into the mainstream education system (Kearsley, 1998) and into existing institutional policy frameworks (Innovations in Distance Education Symposium, 1998). Mainstreaming (convergence of distance education and conventional education) ought then to be measured by the extent to which all the three dimensions are demonstrated.

INNOVATIONS AND DEVELOPMENTS AT THE OUT

As way back as 1979, provisions were made for a Distance Teaching Institute at the University of Dar es Salaam (UDSM) which would employ a low – technology resource package consisting of assignments, Long Vacation School and Radio Programmes in its instructional delivery mode. The Institute was to develop in phases to become eventually a separate distance learning based University, using a multi – media package with local support through a Regional Network (British Council: 51 – 52; Mmari, 1996). Although the OUT did not evolve along this trajectory (Reuben, 2012), in its first decade of existence, its instructional delivery mode was based on a low – technology resource package. For example, the OUT started by using printed study materials from the University of Nairobi. More materials were acquired from IGNOU, Abuja and later on ZOU. Later on, OUT full-time and part-time staff (many of whom were recruited from UDSM and SUA) developed course outlines and study materials for students.

Efforts to integrate ICTs in its operations can be traced back to 2004 when the university formulated comprehensive structures such as ICT Policy, ICT Master Plan and E-Learning Implementation Strategy (OUT, 2009 abc). The ICT Policy stipulates clearly that the university aims to (i) enhance the use of ICT as a main interaction platform between students and lecturers and (ii) transform all study materials developed henceforth into an interactive format consistent with Moodle Learning Management System (ICT Policy, 2009). Since then, sustained efforts are going on to install computer laboratories for students in all Regional Centres. Meanwhile, in order to improve students' access to digital services, OUTSO leadership has been supported by the OUT Mangement to negotiate with a private company for the supply of laptops from China at USD 270 each piece. This arrangement will enable every student to get a laptop at an affordable price.

As a result of these deliberate efforts, unlike in the first decade, ICT infrastructure and access at the OUT, have improved significantly in the second decade (Mbwette (2009). For example, a total of 4 Student Computer Laboratories have been established in Dar es Salaam (at the OUT Headquarters and in each of the three Regional Centres at Ilala,

Kinondoni and Temeke). Furthermore, 12 Community Computer Laboratories and 18 Student Computer Laboratories have been established in Regional Centres. Academic, Administrative and Technical Staff have been provided with desktop computers and laptops with both online and wireless internet connectivity. In this way, it has been possible to deliver study materials to students, interact and provide feedback to them online (Mbwette, 2008 & 2009; Nihuka, 2011; Kissassi, 2012). To enhance the process of integrating ICTs in teaching and learning, a Heavy CD burner has been installed in the Office of the DVC (LT & RS). This has facilitated mass production of CDs containing study materials and course outlines. These are provided to registered students in every programme in all the Regional Centres each academic year. In short, the era of printing, photocopying and freighting study materials in hard copies, is now coming to an end as the OUT is being transformed into a “click/paperless university”. An OUT member of staff has noted:

The ICTs are complex in nature and serve a rich array of functions. They have highlighted the enormous information of human interaction in teaching/learning process. Continuous interaction between students and faculty and among students is the most attractive idea enabled by the new technologies. It is playing a major role in addressing the challenges faced by the OUT in rescuing isolated students from their loneliness by providing interaction with tutors and other learners; easy access to library and other online information resources, and in facilitating completion of research by postgraduate students and lecturers (Ahmad, 2013).

Presently, a significant portion of the Main Library collections is online. So are the filing tracking and record keeping systems. Taken to its logical extreme, the “click only” institution is transformed into a Virtual Institution, similar to the Nairobi based and World Bank funded African Virtual University (AVU). In spite of its special merits, a virtual institution is quite costly as in practice, it substitutes print with online media as the lead media in instructional delivery. Viewed within the context of the goals of ODL to massify educational access, participation, completion and graduation rates on the basis of quality, equality and equity, it is quite contradictory to dislodge print as the lead medium in ODL instructional delivery. Distance education delivery is far less costly than e – learning delivery. While the former enjoys economies of scale, the latter does not. With a literacy rate of more than 80% and almost 100% Radio and TV reception, print and traditional ICTs are not only accessible but familiar and more user – friendly to the majority of ODL learners particularly in the rural areas. This is the context within which the Client Service Charter provides for flexibility in instructional delivery, by creating room for the use of blended learning:

As regards commitments to quality service delivery, the OUT is committed to deliver affordable quality service in academics (through) well maintained libraries, lecture theatres, laboratories, offices and other facilities to enhance provision of open, distance and blended learning using modern technologies as well as access to print

media in recognition of the diversity of Tanzania and Tanzanians (OUT, 2010: para 6.1 – 6.1.1) (*our emphasis*).

Besides application of ICTs in instructional methodology, administration, record keeping and even assessment (ODEX), in this decade the OUT has substituted tutorials in face to face sessions with Student Portfolio Assessment (SPA). Similar to seminar sessions in traditional universities, face to face sessions provided opportunities to OUT students to discuss issues raised in study materials with facilitators and fellow students. On the contrary, under the SPA, each student meets a Lecturer to present in writing the objectives, learning outcomes, difficult areas, suggestions for improvement and references used in studying courses of each Semester. Students with satisfactory level of comprehension are granted visas to proceed with preparations for formative and summative evaluation. Those with unsatisfactory level of comprehension are advised to continue studying the courses.

Previously, the OUT was operating as a single mode distance teaching institution *sensu strictu*. Presently, besides continuing to offer most of its non-degree and undergraduate programmes in this mode, it has started to offer some of its postgraduate programmes under dual and mixed modes as well as under the conventional education mode. While courses offered under the Executive/Evening mode fall under conventional education delivery, those offered under the course work (offered conventionally) and dissertation (completed at a distance), fall under the mixed mode. Within this context, OUT qualifies as a dual mode institution as the same programmes are also offered at a distance (MBA, MA (Ed), MA (Social Work), MA (Sociology), etc). It should be stressed that in no way do these innovations deviate the OUT from its ODL trajectory. They only show how the Institution is addressing public demands for higher education by using opportunities offered by the flexibility of its instructional delivery mode. The same context accounts for the innovation of providing sitting facilities (*Vimbwettes*) at the OUT Headquarters and in Regional Centres, in order to allow students to study on campus as in residential institutions. The Vision and Mission of the OUT bear witness to this thrust.

Vision

To be a leading World – class University in the delivery of affordable quality education through open, distance, blended learning, dynamic knowledge generation and application.

Mission

To continuously provide affordable quality open and distance education, research and public services for sustainable and equitable socio – economic development of Tanzania in particular and the rest of the World.

Source: www.out.ac.tz

Incidentally, comparison with UDSM (see below), reveals striking similarities. The only notable and significant difference lies in the listing of institutional core functions. For OUT, the first core function is education or knowledge dissemination. On the contrary, for UDSM, it is research or knowledge creation.

Vision

To become a reputable World – class University that is responsive to national, regional and global development needs through engagement in dynamic knowledge creation and application.

Mission

The unrelenting pursuit of scholarly and strategic research, education, training and public service directed at the attainment of equitable and sustainable socio – economic development of Tanzania and the rest of Africa.

Source: www.udsm.ac.tz

Towards achieving its Vision and fulfilling its Mission, the UDSM subscribes to . . . application of ICTs in the enhancement of academic delivery and management (Ibid). Elsewhere, we have explored reasons which have compelled UDSM to embark on a “brick and click” trajectory (Kolimba, et al., 2011). Recently, it has been noted:

In many cases, traditional institutions rush to provide technology – enhanced learning or ODL, which is in contrast with their initial goals and strategies, in an effort to stay competitive in the field or for financial reasons. Financial reasons are usually the wrong reasons for implementing ODL or technologically – advanced learning. The costs are initially high, and with ever – changing technology, it could end up costing more than face – to – face teaching (Mnnaar, 2013).

It should, however, be stressed that both ODL and conventional education institutions are bound to jeopardize their respective goals and strategies through indiscriminate adoption and employment of online learning. While we cannot afford to ignore online media, it is essential to blend them with offline media, hence, blended learning, in order to reap better results. The following section explores further this contention, within the context of the status of internet services in our country.

THE STATUS OF INTERNET SERVICES IN TANZANIA

Modern ICTs rely heavily on electrical power and internet connectivity (besides expensive hardwares and softwares which are often vulnerable to viruses). Reliable electricity supply is available to only 14% of the entire population, mostly in urban areas. Access in rural areas where almost 80% of the people live, is about 3% (Gaddis, 2012).

Internet connectivity is through the National Optic Fibre Network or satellite/wireless connectivity from Mobile Phone Companies like VODACOM, AIRTEL, TIGO, ZANTEL, TTCL, BENSON and SASATEL. By the end of June 2012, there were

28,024,611 phone subscribers in all mobile and wired networks as detailed in Table 1 below.

Table 1: The Number of Phone Subscribers in Tanzania

Company	Subscribers
VODACOM,	12,317,029
AIRTEL,	7,504,511
TIGO,	5,613,330
ZANTEL,	2,356,457
TTCL,	227,424
SASATEL	4,810
BENSON	1,050
Total	28,024,611

Source: TCRA Report (April – June 2012) in Hudson Katunza, “Tanzania phone users up to 28m” in www.biztechafrika.com

Presently, more than 50% of the entire population is accessible via mobile and wired networks. By 2016, 38,000,000 people will be accessible representing about 70% of the total population. However, infographic data as in Table 1, may not represent correctly head counts as a result of most subscribers owning two and more SIMCARDS. This may also be the case with the comparative infographic data on Kenya and Tanzania given below.

Table 2: A Comparison of Infographic Data Between Kenya and Tanzania

Data	Kenya	Tanzania
Population	44,037,656	48,261,942
Mobile Subscribers	30,429,351 (69%)	27,395,650 (57%)
Internet Users	16,236,583 (41%)	5,308,814 (11%)

Source: iHub Research in Whiteafrican.com/tag/tanzania (2013)

Data in Table 2 show that Kenya has a higher number of both mobile subscribers and internet users than her more populous neighbour. While more than 50% of Tanzanians can be accessed by phone, only 11% are accessible online. This is certainly a significant challenge which ODL institutions need to address in order to massify access, participation, completion and graduation rates in education and training through online learning.

Internet services have been available since 1995 but there was no fiber connectivity available until 2009. The construction of the fiber optic project implemented from 2009 – 2010 (National Information and Communication Technology Broadband Backbone (NICTBB)), has improved internet connectivity in terms of lower latency and cost. This resulted in a surge in internet speeds, with download speeds increasing over 8 times. Before 2009, only larger businesses could afford access to broadband connectivity in the form of dedicated fixed lines costing between US \$ 5,000 to US \$ 10,000 a month. With SEACOM connectivity, Tanzanians are paying as little as US \$ 15 a month for high speed access, leading to transformative effects on entrepreneurship, social life and

education in the country (Bremmen, 2012).

However, although the Government of Tanzania spent over 250 billion in investment of the national fiber optic, the NICTBB is not being fully utilized to its full potential. The backbone is currently operating at less than 10% of its installed capacity and even lower at its design capacity. Among Institutions which can enhance the exploitation of this potential are educational institutions, both ODL and conventional (Kowero, 2012). In our opinion, ODL institutions have a greater onus to exploit this potential due to the following four reasons.

First, there is an exploding demand for higher education within the context of massification, diversification, globalization, rising costs and ICTs (Kanwar, *op.cit*). In 2007, there were 150,600,000 tertiary students globally. In 2012, the number rose to 165,000,000. It is expected to reach 263,000,000 in 2025. To meet the demand, 4 new universities to cater to 30,000 needed each week to accommodate children who will reach enrolment age by 2025. This does not include the needs of adults for new skills and lifelong learning opportunities. Conventional education simply cannot meet the demand. Presently, access to higher education is about 40% - 50% in OECD countries, 25% in the Caribbean, 15% in South Asia and 10% in Sub – Saharan Africa. East Africa is lowest at 8% (Ibid). Secondly, there is a direct correlation between access to higher education and development. In the case of Tanzania where it is still less than 1%, ODL provides the most cost – effective means of raising it. In this context, ODL provides the surest path to Big Results Now (BRN) in the education sector.

Thirdly, features of the fourth generation distance education include accessing and using Open Educational Resources (OERs), Massive Open Online Courses (MOOCs) as well as resources from Open Educational Resources Universities (OERUs), in instructional delivery. The availability and use of these resources enable ODL institutions to develop instructional materials at a fraction of the costs they were incurring under previous generations. It has, therefore, been noted “these trends hold great potential in African countries, where finances are generally scarce and openly licensed resources offer the possibility of providing cheaper access to high quality educational and research materials for use in both schools and universities” (Butcher, 2013). While “branded” OERS, MOOCs and OERUs can only be accessed online, ODL institutions can easily download and repackage the “generics” in offline media for dissemination to students. It is only ODL institutions which can avail to students appropriate support services to students, for using these resources in the current Information Age. Short of that, they will be misused under the existing and dominant educational paradigms which were developed more than two hundred and fifty years ago, to meet the needs of societies in the aftermath of the Industrial Revolution (Ibid). Fourthly, the reputation of Open Universities and hence, ODL, can be traced to the revolution of breaking the “Iron Triangle” of education and the high quality of their study materials. Both achievements can be enhanced and sustained through the adoption of fourth generation distance education media.

VIEWES ON CONVERGENCE BETWEEN ODL AND CONVENTIONAL EDUCATION

In an ongoing longitudinal survey involving random samples of staff and students in an ODL and a conventional education institution, respondents were requested to provide their views using an open-ended questionnaire (Annex 1), on ODL and conventional education in Tanzania. The specific areas surveyed included the most suitable instructional methodology; trends in convergence; parity in esteem; attainment of the ODL goals, and relevance of the same to conventional education. Regarding the most suitable instructional methodology, all the respondents among ODL staff and conventional students, rated conventional education as the most suitable instructional methodology.

Among the ODL students, 66% rated ODL as the most suitable instructional methodology, while 34% rated conventional education as the most suitable instructional methodology. Regarding trends in convergence, majority of the ODL staff and students (70%), acknowledged their existence, while 30% denied the same. The trends noted by staff included *some typical ODL institutions like OUT which conduct some of their courses in conventional mode; ODL institutions are offering face to face courses and conventional institutions are offering distance courses*. ODL students identified the trends in the forms of *common educational aims/goals; common curriculum and products*. All the respondents (100%) among conventional students, acknowledged convergence as *all modes use a common curriculum and grant the same certificates*.

Regarding parity in esteem, all the respondents among ODL staff and students, observed that there was no parity. For example, staff noted *conventional delivery is dominating over ODL; it is a new instructional mode while conventional mode is traditional*. On the other hand, the students remarked *Tanzanians have a negative perception towards ODL. It is generally taken as a poor alternative*. Similarly, majority of the conventional students (80%) noted that there was no parity between the two instructional modes as *ODL learners look inferior and the system is not common in Tanzania*. Regarding the attainment of ODL goals, majority of the respondents among ODL staff (95%) and conventional students (75%), noted that it was not possible to attain them due to *low completion and graduation rates; most students are not able to access study materials, and lack of appropriate technology and infrastructure*. On the contrary, all the ODL students found the goals attainable. Regarding the relevance of the same to conventional education, all the respondents among ODL staff and majority of the students (80%) noted that they were both *unrealistic and unachievable as the institutional mission and goals differ*. However, majority of the conventional students (70%) found the ODL goals relevant to conventional education.

SUMMARY AND CONCLUSION

The study has explored innovations and developments at the OUT in the last two decades, with a view to demonstrating the salient trends of the phenomenon of convergence between distance education and conventional education. This has been done within the context of the three dimensions underlying the process of mainstreaming of distance education i.e. the achievement of parity of esteem between conventional and distance education; the convergence of the means of instructional

delivery, student groups, and types of institutions and the incorporation of distance education's constituent elements, particularly its philosophy of outreach, into the mainstream education system.

It has been shown that in spite of the innovations and developments documented, convergence is yet to take place within the context of any of the three dimensions of distance education mainstreaming. While acknowledging the positive impact of online learning in enhancing the efficacy of both conventional education and distance education, it has been cautioned that underdeveloped infrastructure and resource constraints tend to undermine its effectiveness in developing countries. It needs, therefore, to be supported with blended learning, particularly offline media like print, poodle and traditional ICTs in the forms of broadcast and recorded media. Finally, preliminary findings from an ongoing survey, tend to indicate that convergence between distance education and conventional education is still elusive within the context the three dimensions of distance education mainstreaming.

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