Introduction
As technologies and networks are becoming more ubiquitous, e-learning, aimed at a global market, has become a fairly common delivery option. This option will grow over the next 15 to 20 years as increasingly postsecondary institutions are looking for ways to internationalize and expand their learner-base and revenues.

In providing a thumbnail sketch of current thinking on models of distance education and international distance education in particular, in elaborating the situation of postsecondary institutions in Sub-Saharan Africa (SSA) and the complicated picture which emerges from that discussion and the related issue of brain drain, the authors point to an innovative, small-scale program which uses the tools of distance education in a blended learning model to address capacity building in a crucial area of international development, early childhood education.

Four outcomes of this specific program are particularly significant: the program has achieved a 90% completion rate; of those who completed, 96% have remained employed in-country; a very significant number of new policy, program and training activities have been initiated in each of the ten countries which participated; and, a viable, sustainable network across eastern, southern and Western Anglophone Africa is emerging as a result of the program.

Drawing on the experience of this innovative distance education program, the authors pose the question, “What are the responsibilities of postsecondary institutions in a globalized market?”

Global e-Learning Today
The challenge of how to characterize “e-learning” and measure its effectiveness has been a subject of lively debate in the field. (Mugridge, 1989; Rumble, 2001). One of the more comprehensive definitions is provided by Garrison and Anderson (2003). After reviewing the generations of technologies that have been used in distance and open learning, starting with printed textbooks and correspondence courses and now encompassing computers and the Internet, they conclude that E-learning takes components of each generation, digitizes them and delivers them using a common interface (the Web browser) and common transportation
protocol (TCP/IP.) Integral to the technologies utilized in e-learning is the capacity to support interaction. (Garrison & Anderson, p. 47)

While it now seems “conventional wisdom” to agree that the use of digital information technologies in education is growing in all parts of the world (Anderson & Kanuka, 2003), the debate and research around the effectiveness of educational technology continues to be vigorous. As Russell (1999) notes the research showing there is no significant difference between a given technology-based method and the traditional classroom dates to at least 1928.¹

What constitutes success at the institutional level in the use of technology in teaching and learning? Bates (2000) summarizes two important attributes: a strategic plan and a focus on quality assurance—both of which are key components of the program, Early Childhood Development Virtual University (ECDVU), described below. An ideal strategic plan for the use of technology documents how to acquire, maintain and renew hardware and software within the context of a wider design for teaching and learning (p. 56). While Bates (1995) had developed a framework for choosing technology (ACTIONS), Bates and Poole (2003) updated this model, advocating that SECTIONS is more pertinent to current requirements. SECTIONS stands for students (whose needs and views should be central to all decision-making, including the choice of technology, ease of which a given technology can be used, cost (both capital and operational), interaction, organizational change required if the technology is to be used effectively and appropriately, novelty (a sometimes crucial motivator) and the speed with which courses can be created and revised. While Bates and Poole address the selection of a technology, the same SECTIONS issues could also usefully be examined with respect to deciding whether to use e-learning in a given context and whether the model needs to be adapted at all when applied in an environment such as Sub-Saharan Africa.

Aspects of quality include the content, media production, instructional design, delivery and student support (Bates, 2000, pp. 65-66), all of which are key components in a classic instructional design process (Moore & Kearsley, 2005). The United Kingdom, Australia and New Zealand were early

¹ Far from establishing the credibility of the use of technology for education, such findings have only generated more debate about how rigorous any research is. (Lee, Driscoll & Nelson, 2004; Bernard, Abrami, Lou & Borokhovski, 2004).
leaders in quality assurance (QA) (O’Shea, Bearman & Downes, 1996). Nevertheless, Lewis (2002) notes that

In spite of the activities of the Quality Assurance Agency, it can be argued that change in learning and teaching has been incremental and at the level of techniques rather than action arising from a more radical assessment of the learning environment. (Issues section, http://www.irrodl.org/content/v2.2/lewis.html)

As distance education becomes more pervasive in the Majority World, including Africa, it will be important to track quality assurance trends and determine whether Lewis’ somewhat pessimistic conclusion will apply there too.

Current research seems to indicate that human resources involve a critical constellation of issues in quality assurance. For example, everyone from the teachers and professors involved in course development and delivery (Kurtz, Beaudoin & Sagee, 2004) to librarians who provide critical support to faculty and to students (Watson, 2003) require support ranging from the provision of professional development (Brindley, Zawicki & Roberts, 2003) to access to team members with complementary skills: e.g., technicians and web designers. Learner support systems may be particularly critical in an international context (Spronk, 2004).

Tait (2003) includes a definition of student support in his comment about effectiveness of such activity.

Student support, especially student guidance and counseling, tutor support, and effective information and administrative systems all provide a range of activity that impacts not only in terms of teaching but also affectively, that is to say reinforcing the student sense of confidence, self-esteem and progress. (Editorial, http://www.irrodl.org/content/v4.1/index.html)

He also notes that appropriately timed interventions may also enhance student retention rates. Paul and Brindley (1996) cite a number of features of learner support systems that are particularly pertinent in an international context. They note that “there is no one set of services appropriate to

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2 The term, ‘Majority World’, is widely used in international development literature with a community development focus, where it is preferred to terms such as ‘developing world’ and ‘third world’ which are seen as pejorative or ‘western-centric.’ The term can be found not only in early childhood development literature, but also in education in general (see for example, Teachers Talking About Learning, (http://www.unicef.org/teachers/forum/), other socially responsible development literatures on sustainability and civil society (http://www.oxfam.org.uk/coolplanet/teachers/globciti/why.htm) and literatures and teaching on environment and development (http://www.sais-jhu.edu/programs/i-dev/Syllabi/Environment.html).
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all distance education settings” (p. 49). Paul and Brindley also note that services should be integrated “so as to appear seamless to the student” (p.49) and stress the importance of continuous evaluation to challenge assumptions about how well services may be working. Access to resources, in particular library resources are another set of challenging issues in many Majority World settings.

Bates (1999) described three models of international distance education which apply to postsecondary institutions in the developed world that still remain valid in the current environment: direct marketing, franchise agreements and joint programs. Arguably, according to Bates, one of the simplest and commonest forms of international e-learning is the recruitment of overseas students to existing online programs: i.e., direct marketing. Where the language and culture are similar, institutions may find success by targeting such students using inexpensive methods such as professional listservs and other online professional tools that are freely available within the academic community.

A second model is a franchise agreement. One institution designs a program and delivers it within its own catchment area but licenses or agrees contractually that another institution may deliver the program within its own, quite different catchment area. While the “franchisee” may well adapt the program to suite cultural or linguistic differences, the model assumes that the “franchisor” has more expertise since it developed the program. Both, however, benefit by gaining revenue (franchisor) or content (franchisee) that neither would be able to access independently.

A more equal partnership between two or more institutions can lead to joint programming, Bates’ third model, in one of several forms. For example, three institutions of equal stature in their respective home countries, decided to jointly develop programs in land resource management. Essentially, each university developed a portion of the courses, all of which were then offered by each university to its own students. In addition to the models of international distance education, Bates (1999) posits four primary reasons why an institution may decide to enter the field of international e-learning: revenue generation, responding to demand, altruism and internationalizing a local program. ECDVU has been driven by the second and third of Bates’ reasons.
Multilateral agencies such as the World Bank have extensively documented the relationship between knowledge (human capital) and economic development (Moore & Kearsley, 2005). Moore and Kearsely note that the Bank is but one of a number of agencies that have come to see distance education as a key part of their strategy to transfer and generate knowledge and research capacity in developing countries. In 2002, for example, UNESCO designed a course “for training policy makers and practitioners in distance education in developing countries” (Moore & Kearsley, p. 284). While UNESCO and the World Bank see distance education and e-learning as only one part of what they do, for the Commonwealth of Learning (COL) the sole purpose is the promotion of these modalities in Commonwealth countries (http://www.col.org).

Before examining the ECDVU program and considering what we can learn from it, the next section examines some of the key issues at play in the postsecondary world in Africa and the present reality and potential for e-learning in the African environment; crucial issues such as brain drain and network-building will also be discussed.

**The Postsecondary Sector in Africa**

The postsecondary environment in Sub-Saharan Africa (SSA) in the early years of the 21st century is one of increasingly scarce resources and relatively low penetration. The worsening conditions in the postsecondary sector mirror the deepening social, economic and health crises in most countries of Sub-Saharan Africa. Not surprising one of the key Millennium Goal for Africa remains achieving universal primary education in the foreseeable future (UNDP &UNICEF, 2002). The well-being of the higher education sector is closely tied up with this goal insofar as postsecondary institutions evolve to become the suppliers of human resources to the primary system.

The picture in Sub-Saharan Africa remains bleak. As of the end of the last decade the gross postsecondary enrollment ratio for Sub-Saharan Africa was only 3.6%; the same measure for the same period for Asia was over 10% (Saint, 1999). The approach to teaching and learning in African institutions of higher education remains by and large the legacy of the colonial era – very traditional, face-to-face lectures in the context of a highly structured, and British or French, approach to programs of study. Indeed, the quality of teaching and learning is a growing issue in
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the African context. The Association of African Universities (AAU) does provide a series of
benchmarks to improve the quality of institutions and instruction, notably to promote sharing and
networking and to build institutional capacity.3

There are some trends that provide glimmers of a hopeful future. Indigenous Knowledge (IK) is a
promising aspect in the development of a “home-grown” African educational system at the
postsecondary level.4 Most frequently to date, IK has been applied to traditional medicine.
However, other applications for IK, such as teaching and learning are now gaining attention. The
integration of IK, often supported by policy initiatives of the institution following those of the
national government at the postsecondary level, is one of the elements on which an African-focused
curriculum can be based.

As the people of Africa seek a better quality of life and move to join the global knowledge-based
economy, the principal issues of higher education can be characterized as ones of low enrollment
with pressure to increase enrollments in higher education, the inability by government to provide
sufficient funding support, the colonial legacy of teaching, deteriorating physical infrastructure,5 a
decline in academic standards along with an interest in improving quality, and access issues such as
a gender gap, i.e., a low percentage of participation by women. In addition there is the ongoing
challenge of meeting the specific needs of the wider population, e.g., working adults.

3 The AAU in 2005 has 179 members from 44 African countries (including North Africa) while estimating there are
almost 700 institutions of higher education throughout the continent. To date the International Network for Higher
Education in Africa website provides the most comprehensive listing of the country-by-country profiles of higher
education in Africa on which to draw: http://www.bc.edu/bc_org/avp/soe/cihe/inhea/profiles.htm

4 ‘Indigenous knowledge, also referred to as traditional or local knowledge, refers to the large body of knowledge and
skills that has been developed outside the formal educational system. IK is embedded in culture and is unique to a
given location or society. IK is an important part of the lives of the poor. It is the basis for decision-making of
communities in food security, human and animal health, education and natural resource management’
In South Africa there are interesting initiatives to integrate IK into national development and the education sector. The
University of the North-West (Mafikeng) has launched new, accredited undergraduate and postgraduate degree
programs in Indigenous Knowledge Systems (IKS).

5 Studies by Afemikhe (2002) at the University of Botswana, and El Badawy (2002) at the University of Zagazig show
the relation between overcrowding and deteriorating material conditions on the one hand, and student perceptions of
quality in teaching and research (Akilagpa Sawyerr, 2002).
Distance Learning in Africa

The growing acceptance of distance education using ICTs globally provides some of the possible responses to the problems in the African context. Some African institutions have actively pursued this means of program provision; however, other universities have been hesitant and slow on the uptake and for good reason. The origins, and at the turn of the century, the lion’s share of distance education, has been based on the predominance of print and radio as the delivery media. According to Isaacs (2002), the main obstacles faced by the African education system (including the tertiary institutions) with respect to adopting ICTs specifically can be summarized as: lack of infrastructure generally, and network infrastructure in particular; high telephone and Internet access costs; limited expertise and skill levels; and a lack of an enabling national policy. These are part of the reason for the very real digital divide between the Majority World and the developed one. This too may be slowly changing in the education sector. To provide a catalyst for acceptance of distance learning and to address in part some of the infrastructure difficulties, a growing number of regional and Africa-wide electronic higher education projects have been initiated, most often sponsored by large scale international organizations such as UNESCO, COL and the World Bank.

Prominent among these, the World Bank, in 1997, established the African Virtual University (AVU) pilot project. Its goal was to establish partnerships with key African universities and to offer credit courses and non-credit seminars in SSA, primarily utilizing video-teleconferencing technology. On completion of its pilot phase, AVU has converted into an independent NGO offering accredited programs using a modular, digital library to provide more access scholarly publications and share African research results, connectivity assistance for its partner institutions and a distance learning portal open to all African universities. In a scan of the professional environment for distance learning, one study reported that in 1999 there were 10 distance education associations in Africa and 20 websites focusing on tertiary distance learning. The author goes so far as to suggest that “new technologies will make university campuses obsolete” (Saint, 1999).

Capacity and sustainability issues

To provide a snapshot of distance learning in Africa and highlight what needs to be considered in order to build capacity and ensure sustainability in the future, six issues are briefly explored: learner support systems, course design capacity, government policy, indigenous knowledge,
research and collaboration, and lastly, human resource development which is examined in greater depth.

By and large, learner support to distance learners is offered through face-to-face sessions in study groups and group counseling; although, in some jurisdictions, such as in northern Ghana and Namibia, these are available locally or regionally through distributed centers. More often, the lack of resources and infrastructure make distributed centers prohibitive. Also the work situations, transportation difficulties and pulls of family life of working adults present a number of particular needs in SSA.

Another key resource lacking in most situations in SSA is access to scholarly literature. Libraries are generally resource starved or very dated and with a deteriorating infrastructure. On-line digital libraries, such as those of AVU and COL, provide a much needed solution, i.e., once widespread and reliable connectivity is achieved.

Many SSA institutions face a critical shortfall in course design and production capacity, especially in the development of multi-media packages, which require a wide range of expertise. They also lack the necessary production facilities for either high quality print materials or multimedia packages. There is little evidence of a collaborative approach to the use of production facilities, which means that if an institution wishes to move into Internet-based modes of distance education provision it would probably have to do so independently. For most institutions the cost of setting up the necessary infrastructure remains prohibitive. This challenge is further exacerbated by the dearth of appropriately skilled technical support staff (WGDEOL, 2002). For example, Butcher and Wali (2001) note:

….that there is scope for substantial improvements in preparation of materials specifically for use in distance education programs, for example through integration of instructional design; use of computers to support development and a focus on layout of materials. (Butcher & Wali, p. 7)

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6 In a case study of providers in Nigeria, the National Teachers Institute was “the only institution that has been able to maintain a network of local tutorial support centers. Recognizing the value, other providers have typically set such networks up, but then found them too expensive to maintain. In most cases, this network of centers has not been abandoned, but reduced in scale and scope to focus only on the logistical functions of student registration and distribution of course materials “(Butcher and Wali, 2001).
Currently some institutions in South Africa are beginning to address the issue of quality assurance but this systematic checking of whether the approach and curriculum is of sufficient standard is generally lacking in the rest of SSA.

As Bates (2002) notes “The way we teach is a cultural construct. There is no right or wrong way to teach. Every country has its own standards or preferences for what constitutes teaching and learning” (p. 8). With the integration of Indigenous Knowledge (IK) in distance learning, African-based content can be enhanced and home-grown standards applied. This is especially true for learning in rural settings, where the need is greatest.

As globalization becomes more and more of a reality and new ways to approach higher education are developing, African scholars are beginning to participate in the use of technology for teaching including e-learning endeavors. As well, academics on the ground in Africa see the advent of technology in the higher education sector as a boon to research and collaboration in order to expand their knowledge base.

If this approach to educational development is used judiciously, it will open up new frontiers to learning by enriching collaborative research among African universities and between universities in Africa and other parts of the world. It will also promote cross-national, multi-disciplinary perspectives in educational practice, and thereby equip students, faculty, and administrators with tools and resources that would enable them to successfully engage the academic world of the 21st century. (Darkwa & Mazibuko, 2000)

At a pan-African level, initiatives such as the African University Network initiative are in the works, proposing that by 2015 all universities and colleges will be connected to the Internet. No matter how the technical infrastructure is upgraded throughout Africa, it will have little effect (or a negative one of increasing the digital divide within the nations) unless a concurrent development takes place in human resources. Note that in Anglophone Africa, teacher training accounts for half of all distance education program respectively. Given the significant shortage of teachers, as well as the fact that in some Sub-Saharan nations, student enrollments are outpacing the number of teachers available (Chapman & Mulkeen, 2003), application of distance education supported by ICT requires extensive support.
International Non-Governmental Organizations such as the Commonwealth of Learning and UNESCO, as well as a number of European governments, have been prominent in facilitating and funding this area. For instance, UNESCO established the International Institute for Capacity Building in Africa (IICBA) in 1999 to develop the capacities of African institutions in the fields of teacher education, curriculum development, educational policy, planning and management, and distance education. IICBA applies ICTs in the provision of services and has developed electronic library resources.

However, a commitment on the part of the institution’s leadership is a crucial factor in moving forward. For example, The Educational Technology Unit at the University of Botswana has as its purpose: “to spearhead the appropriate and innovative integration of educational technologies in teaching and learning processes, and to provide a technologically advanced and relevant learning environment” (Uys, 2003). How and whether they and other African institution will have the resources to do so, remains to be seen.

With the growing recognition of the importance of universities to long-term sustainable development and the active support by outside agencies and groups such as the Partnership for Higher Education in Africa,7 there is movement to reform government policy at the national level in some countries. Along with support of ICTs, some governments are promoting more autonomy while encouraging better governance at the institutional level, as well as opening access to higher education.

Human resource development and the brain drain

The impact of losing the educated elite through out migration is a blow to any country in the Majority World. This loss has had a profound and long-lasting impact on development itself. Nowhere has the impact been as proportionally large and damaging as in Africa. For example, the

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7 Four major US foundations joined together in the establishment of this initiative—Carnegie Corporation of New York, The Ford Foundation, the John D. and Catherine T. MacArthur Foundation, and the Rockefeller Foundation. The Partnership has selected six African countries undergoing systemic public policy reform in which to concentrate—Ghana, Mozambique, Nigeria, South Africa, Tanzania, and Uganda. Universities in these countries now have a hospitable environment in which to innovate and to transform themselves. In short, public renewal has led to institutional renewal.
UNDP has estimated that since 1990 approximately 20,000 highly skilled Africans leave their countries annually (Mutume, 2003); some estimates have more than one-third of Africa’s skilled professionals leaving for the developed world. In fact, there are over 100,000 highly educated professionals in the US alone, of which, for the purpose of illustration, there are over 21,000 Nigerian physicians, not to mention the fact that there are more Sierra-Leonean doctors practicing in the Chicago area than in Sierra-Leone itself (Udogu, 2004).

B. J. Ndulu (2003) lays out a very stark picture. To summarize, he argues that in the same way that Africa is scarce of capital for growth and development, the scarcity of human capital is also a drag on development. The deterioration of the postsecondary sector contributes to the scarcity but as importantly, the flight of human capital to seek education and/or employment in the West is a major contributor to a shortage of skilled and professional human resources. Moreover, as Ndulu points out, the regional averages mask the impact of the losses on a country level; for example, of twenty-four African countries, migrants with postsecondary education make up anywhere between 44% to 90% of all those leaving.

For those who leave to study abroad, one US survey of selected Canadian and American universities estimates that of the African PhD’s trained in North America from 1986-1996, on average 64% returned to Africa (Ndulu, 2003). However, Zeleza (2002) has pointed out that the study shows that rates of return vary considerably by age, discipline of study and other factors. Younger graduates (20-29 year olds) are less likely to return home than their older counterparts (40-49); only 36% of the former and 58 % of the latter return home (Zeleza, 2002).

What are the factors that contribute to this pattern of migration? Push factors include such pressures as the political, economic and social instability of the country, overall weakening of the postsecondary system, inability to find challenging jobs in one’s field of study, weakness or lack of professional networks, jobs with no natural career paths and low pay. (Udogo, 2004; Ndulu, 2003).

Pull factors include the attraction of studying at a good western university, the opportunity to work in a professional setting, salary levels in stable currencies, lack of civic strife, and the opportunity for one’s children to flourish. With the West experiencing skills shortages in a number of fields,
Western countries are “trolling” the less developed countries for skilled labor. Ndulu (2003) refers to this as replacement migration strategy where the West’s slow growth in population necessitates looking outward to meet high demand for skilled services (p. 8); relatedly, postsecondary institutions in the West continue to work hard to attract foreign students who bring higher tuition rates (Prewitt, 2003, pp. 35-36).

For over a decade and more, international agencies have begun to examine ways in which the inevitability of brain drain can be offset if not reversed. Operating in a situation where even small improvements in wage rates in Africa serve to facilitate the outflow of the educated, and where the wage and salary gaps between Africa and the source countries are unlikely to diminish, organizations like the International Organization for Migration and United Nations Economic Commission for Africa (UNECA) established a Return of Qualified African Nationals (ROQAN) program, the purpose of which was match African emigrants to a range of jobs (government, research, private sector) in specific African countries and pay for resettlement costs. According to Ndulu (2003), between 1993 and 1999 “the program succeeded to repatriate 2000 African emigrant experts to about six countries” (p.20).

With the slow but steady adoption of new technologies in Africa, there may be an opportunity to stem the tide. ICTs offer potentialities to create world-wide communities of scholars so that a small professional group in one country may be able to tap into the larger academic world outside; networks between African professionals and those from outside are being encouraged by international funders. And using a distance education approach from the outside in, can offset some of infrastructural deficits mentioned in an earlier section of the chapter like scarce resources, low penetration rates, and the current lack of course design capacity.

One of the benefits of supporting such an approach to postsecondary program and course delivery is that African students can remain in-country, while at the same time studying at accredited Western universities. Of course, this is not to say that these distance students will not feel the pull toward emigration, but they will have studied in a milieu that has shown them how to communicate using the technologies, how to network with others across the digital divide. At the same time, there are important lessons to be learned on the part of the Western postsecondary institutions
which have taken sight of the potential to attract distance students from the Majority World if they also choose to be committed to promoting African development and growth. The next section describes one small scale, successful, and potential replicable program in more detail.

The Early Childhood Development Virtual University (ECDVU)

The Early Childhood Development Virtual University, a three-year Masters degree in early childhood development aimed at a selected group of adult learners in ten countries in Sub-Saharan Africa, began in 1999. This blended program operating out of the University of Victoria (Canada) and developed with direct funding from the World Bank, had its antecedents in an aboriginal ECD program that Dr Alan Pence and colleagues developed in the late 1980s, as well as UNICEF supported face-to-face seminars and a World Bank supported conference held subsequently in Africa. Key to both these early efforts was an emphasis on a community development approach to knowledge generation, termed ‘generative curriculum’.

During the 1990s, both UNICEF and the World Bank had acknowledged that there was a need to expand capacity in the area of early childhood development; by the end of the 1990s the World Bank was committed to supporting the development of digital solutions to some of the development problems in the Majority World, especially in Africa (see discussion of AVU above); ECDVU represented another approach. With development funding from the World Bank, ECDVU sought and received delivery funding from a broad range of sources including UNICEF, World Bank, UNESCO, Canadian International Development Agency, Bernard van Leer Foundation, as well as the local employers of ECDVU participants.

The Early Childhood Development Virtual University (ECDVU) represents a ‘virtual learning’ response to an essential capacity building need in Africa: the promotion of healthy child development and well-being (ECD). At one level, the ECDVU program fits comfortably into a discussion of web-supported higher education – it is a blended web and face-to-face graduate degree program that enables students to maintain their employment and residence in-country while completing a part-time, three-year degree program. On another level, the online degree becomes a viable means to address a much greater, non-individual outcome – the building of country level

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8 First Nations Partnerships Program (FNPP, [www.fnpp.org](http://www.fnpp.org))
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capacity to better respond to the needs for child well-being as a key component of broader social
and economic development.

The ECDVU is based on a ‘ripple impacts’ model, wherein the leadership cohort taking the
program (nominees from participating countries) are committed to ensuring the flow-through of
ideas and learning gained through their participation in the ECDVU community of learners into
their countries, resulting in ‘concrete’, measurable advances such as policies’ development,
programs’ development, and training and education developments impacting large population
numbers. From the initial development of the ECDVU proposal through a summative evaluation
conducted by the World Bank in 2005, the focus of the program has been on achieving broad and
far-reaching impacts through the vehicle of intensive work with a multi-country cohort of leaders,
and potential leaders, identified by their own countries. The Executive Summary for the Impact
Evaluation concluded: “By any measure the ECDVU has been singularly successful in meeting and
exceeding all of its objectives” (Vargas-Baron, p. 12).

Antecedents to the model
This history, briefly sketched, is germane to the discussion in this chapter as the ECDVU program
grew out of, learned from, and incorporated a great deal from these earlier activities. The
antecedent FNPP program developed a unique approach to postsecondary curriculum development
called the ‘generative curriculum.’ The model is post-modern in concept, valuing diverse sources
of knowledge and appreciating that the communication of local knowledge must come from those
respected by local communities to convey such information. The approach is indeterminate in
outcome—both teachers and students become learners and both engage in interactions that often
surface diverse forms of ‘new knowledge’, or new combinations of knowledge. The approach was
found to be dramatically effective in work with Aboriginal communities producing completion
rates of approximately 80% over one and two year programs -- rates that were two to four times the
averages reported for other approaches to Aboriginal higher education at the time, and doing so
with virtually no ‘brain-drain’ impact on the communities (Ball & Pence, 2001).
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Such experiences proved instructive for the ECDVU program. The influence of the generative curriculum approach is seen in preface materials for each of the ECDVU courses. It is an approach which challenges learners to draw on experiences in their personal and professional lives, and to “co-construct” program curricular materials as well as their own in-country experiences and data to derive their own perspectives and applications. In other words, it strives to place individuals, programs and policies in an interactive and dynamic context that seeks to plan activities that impact the larger ecology. It considers ideas, research, and goals pertaining to child care and development from many different cultural sources, including (but not limited to) African and Euro-Western sources, exploring 'how we came to be here' vis à vis the evolution of various theories and constructions regarding children and their care, and more recent international development activities on child care and development. Lastly, generative curriculum encourages collaboration, reciprocal learning, and networking among learners of each participating country by aiming to strengthen the capacities of participants to fulfill their professional mandates and to be accountable to their constituents and the broader ECD community in their countries.

The second antecedent was the Africa-based ECD Seminar Series. In developing the ECDVU, the Program Director strove to maintain key facets that had contributed to that success while planning a fundamentally new, web and face-to-face graduate level program. Elements carried forward from the Seminar Series to the ECDVU included: the seminars’ interactive format and a philosophy of respect for indigenous knowledge, incorporation of the internationally recognized consultants who had served as facilitators into the list of potential ECDVU faculty, reinforcing the work of the seminars into the work of key African and international donors supportive of ECD and requesting delivery support from them as well as from the local employers of participants.

*New elements of the model*

Significant new aspects included: creating graduate level courses relevant to the needs of Africa, achieving accredited status for the coursework and the graduate degree (achieved through the University of Victoria), and developing an approach to web and face-to-face instruction that maximized network enhancement, leadership promotion and capacity development at an affordable cost and within connectivity realities in participating countries. The ECDVU benefited from the
world-wide expertise in the creation of several advisory groups\(^{10}\) (one of the chapter’s authors, Roberts, sat on the technology group).

Ensuring country-level ECD capacity promotion was a central challenge. It was clear that interest in the program would be strong in all priority countries but the program was designed to take only three to four participants from each of ten countries.--Eritrea, Uganda, Kenya, Tanzania, Malawi, Zambia, Lesotho, Nigeria, Ghana and The Gambia. Ensuring that those taking the program would do so primarily as contributors to their countries’ capacity development, in addition to their own personal and professional development, was critical for the success of the program.

To accomplish that objective a number of features were built into the design of ECDVU. Rather than an ‘open enrollment’, applicants were nominated with a view to their potential commitment to promote country-wide ‘impact-ripples’ through their participation. An inter-sectoral, multi-organizational committee of ECD stakeholders developed an ECD Country Objectives Plan that was then used as a framework to choose nominees, who came from a range of relevant sectors and organizations. ECDVU, in turn, indicated it would do all it could to honor the recommendations of the committees, while ensuring University requirements were also met.

The ECDVU program design was grounded in a generative curriculum approach. Instructional design and learning specialists (Schachter and Zuckernick) came on board early in ECDVU and played a key, integrated and integrating role throughout the life of the pilot program, working closely with the Program Director in selecting the learning platform, ensuring that it met local (i.e., SSA) on-the-ground realities, creating detailed and user friendly orientation guides for participants and instructors, and designing an effective, flexible and tailor-made course design for the web-based portion of the courses. They worked closely with instructors to lend consistency to course

\(^{10}\) ECDVU Advisory groups included: 1) an international ECD advisory which met once in April 2000, 2) an international technology advisory group, and 3) an African ECD advisory group. The international advisory group examined what criteria might be employed in the identification of priority countries in Africa, and key considerations in identifying participants for the pilot program, amongst other topics. The technology advisory provided direction and contacts to better understand the challenges inherent in trying to mount a web-based program in Africa. The ECDVU produced a technical feasibility paper in March 2000 which served as a blueprint for the technological aspects of the program. The Africa ECD advisory group was primarily composed of key contacts from all parts of Africa built up over the period 1994-2000. The African advisory members were instrumental in preparing for course content resources.
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design (11 courses were offered) ensuring that team assignments were an integral part of the overall curriculum and that assignments in general promoted engagement with local programs and contextualized applied learning in the ‘real world’ of participants’ home countries, with an emphasis on the creation of ‘deliverables’ at the local level. Key to overall program design was the creation of a strong support mechanism, the cohort manager in the project office in Victoria, who in the external evaluation was recognized for her outstanding commitment and support to participants. Another program feature was the integration of the seminar portion of the courses within the web-based portion of the program; two courses were offered simultaneously over a period of about six months, with 12 weeks of web-based materials, a two-week seminar designed to help build an effective learning community and vibrant networks, and finally, approximately 10 weeks to complete the final assignment.

Over and above these particular features ECDVU has embedded the project in the broader world of ECD. The project benefited from the caliber of its instructors, many of whom were highly skilled consultants working in international ECD development and the involvement of local academics at the ECDVU seminars, many of whom had been involved in earlier seminars and were committed to taking a new approach to teaching and learning. The ECDVU cohort of learners have had the opportunity to hone their skills providing support and country representation at subsequent African-based ECD conferences.11

**ECDVU program outcomes**

The following section will assess the outcomes of the ECDVU based both on data collected by the program (**internal**) and by an **external evaluation** proposed and funded by the World Bank. The internal evaluation had several components: at various points throughout the program participants were asked to identify applications in-country based on their involvement in the ECDVU; a more omnibus survey of the participants was conducted near the end of the program; a similarly broad-ranging survey was undertaken with colleagues’ of the participants in order to achieve some degree of triangulation of results; and all seminars and courses were routinely evaluated. Much of the

11 The Third African International Conference on Early Childhood Care and Development Conference, planned for Accra, Ghana in May 2005, includes the ECDVU on the planning committee.
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internal evaluation was led by a post-doctoral student from Cambridge University with African
development experience.

In late 2004, the World Bank contracted with an experienced, senior consultant in ECD (who is a
former administrator with the USAID) to conduct a substantial external evaluation with an on-site
visit and interviews in Canada, a document review, and a survey of the participants. The evaluator’s
report was completed in February 2005. The World Bank consultant noted in her report that:
“Where they coincide, the findings of the internal evaluation parallel those of the external
evaluation. Thus the program’s internal evaluation results can be given full credibility”
(Vargas-Baron, p. 7).

Both evaluations concluded that the ECDVU program was very successful, and success was
indicated by the program’s ability to address its central objectives of ECD: capacity building,
leadership promotion and network enhancement. Each objective is multi-faceted, and each was
significantly advanced through the very high completion rate of 90%, accompanied by virtually no
brain-drain—96% of those who completed continued to live and work in-country. In addition, the
ECDVU evaluation notes that these results compare very favorably, in contrast to other distance
learning programs in Africa which are estimated to have drop out rates of 50 percent and higher

The program can be deemed successful with these two, basic statistics, but the program was able to
move beyond excellent retention and completion to evidence of considerable, broad ranging
impact within the participating countries. The external evaluator noted: “Virtually all participants
became involved with ECD policy development, advocacy and implementation during their
studies…” and “All of the … respondents were involved in training activities” (Vargas-Baron, p. 8).
“Some 83 percent of the graduates noted they are applying and/or teaching others coordination
and leadership skills they learned during the program” and “All but one …noted they planned to
use IT to conduct ECD activities.” The external evaluator also noted: “Even though ECDVU did
not have explicit goals for participant involvement in Education for All (EFA) or Poverty
Reduction Strategies (PRS) activities before the program began, it is striking to note that 70 percent
have become involved in EFA activities and 87 percent in PRS activities” (p. 8).
The internal evaluation explored issues of personal growth and empowerment, suggesting a relationship between those strongly positive indices and work accomplished in the country. “100% of learners testified to increased confidence since beginning the course, and their colleagues observed this enhancement as well. [Participants felt that] this increased confidence has allowed them to participate actively in decision-making and policy development at higher levels than they had previously felt possible” (Schafer & Pence, p. 2). Colleagues’ appraisals of the participants were uniformly positive: “92% of participants’ colleagues noted a significant or above average increase in learners’ knowledge of ECD issues”…, and “89% noted a significant or above average increase in their ICT skills” (p.3). According to their colleagues, “an impressive 87% of learners were involved in developing new programs”… and “78% felt that the participants had improved their organization’s links with other ECD networks”. Only 15% of learners changed employing agency since beginning the program three years earlier, and 63% had been promoted.

Space does not allow for a full cataloguing of projects and activities mounted in-country by each of the participants, but in many cases outputs addressed in-country were substantial; for example: in Malawi the ECDVU participants were key players in the creation of the country’s first policy for young children; in Tanzania a viable, active ECD network, inclusive of most of the regions in the country, was formed building on the initial ECDVU candidate selection committee; in Eritrea a training of trainers parent support program, developed as the participants’ major project, trained hundreds of community leaders and reached to the most remote villages; in Nigeria one ECDVU participants reached 420 people through a series of training sessions throughout the delivery of the ECDVU; in Ghana a long-standing (eleven years) draft policy on ECD was formally implemented at the conclusion of the ECDVU program. In addition, the external evaluator noted that ECDVU has became relatively well known throughout the international ECD ‘world’, and through that visibility a number of the participants were able to participate in a variety of international meetings and exchanges beyond Africa, further increasing the profile of the program and international recognition of ECD in Africa.

Elements of program effectiveness
Both evaluations are enthusiastic regarding what their research found and the implications of the ECDVU—not only for ECD in Africa, but for other areas of professional development and in other regions of the world. But why was the program so effective, and what are the potential implications for web-supported learning? To address these questions, one must attempt to mesh the unique history and pedagogy of the ECDVU with key points raised earlier in this chapter. Bates (2000) noted two key attributes for success in the use of technology in teaching and learning: a strategic plan for technology and a focus on quality assurance. The two points are salient for understanding the success of the ECDVU as well: strategically, ECDVU saw the combination of ‘low end’ technology (low band width, user friendly programming, purposefully ‘redundant’ learning materials, i.e., Internet delivery supported by CD-ROMs and print materials to overcome frequent connectivity difficulties), augmented by Africa-based intensive face-to-face interactions, and carried out within a broader, shared understanding of ‘mission’ (not unusual in many professional service fields), as having the potential to dramatically motivate learners as long as ‘quality assurance’ was monitored throughout. The combination of strategic planning and quality delivery, proved effective in the case of the ECDVU.

The ECDVU benefited from having a substantial pedagogical and community development history, realized within the restraints and idiosyncrasies of a postsecondary institution. It had taken several years to develop and refine the features of the generative curriculum model (working with Aboriginal communities), but once refined it was adaptable to the purposes of the ECDVU. Similarly, the substantial history of the ECD Seminar Series in Africa had done much to establish necessary background knowledge, country relationships, an approach to intensity in face-to-face interactions and the formation of a ‘community of learners’ environment, and general credibility that would serve the new initiative well.

Not needing to ‘invent’ all parts and pieces of the ECDVU at once, made the undertaking do-able. The team responsible could concentrate on ‘quality assurance’, fashioning new elements thoughtfully in response to learner need, strategically, bringing in new partners that had their own experience base to launch from, such as the instructional design and distance learning specialists contracted for that facet of the program, and building on previous work with partners in Africa on ways to identify the most suitable candidates country by country. By and large, contacts with
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content specialists and potential instructors were also in place, primarily through the established Seminar Series.

Certain elements were created from ‘scratch’-- exactly how course content would include distributed and face-to-face elements, how to effectively support students’ (and faculty) initial engagement with the Web, and how to support both as the program unfolded (just a step or two ahead of the learners and the instructors). These were the on-going challenges, the day-to-day problems that were not calculated on some ‘master plan’, and did not have resolutions pre-established. These were the ‘generative’ challenges to the program itself and tested its ability to learn, resolve and go on to the next unknown.

The ECDVU represents a distinctive approach to professional development and capacity building in the Majority World. The Impact Evaluation goes on to recommend not only the extension of the program, in cooperation with ECDVU-identified University partners in Africa, but also notes the applicability of the program to other areas of professional development, in Africa and beyond. While the focus for the particular initiative was early childhood development, the structure and processes employed are generalizable to other health, education and social service leadership promotion needs.

The adaptability of the program to other cultural settings was demonstrated through a one-year ECDVU professional development program in the Middle East (requested by the regional office of the World Bank). The one year program not only allowed the program developers to examine the ‘portability’ of the program, but also presented the opportunity to observe and assess the importance of structural and procedural elements in the program as well. For example, of the five countries participating in the one year program (Lebanon, Jordan, Yemen, Egypt and Tunisia) only Jordan and Yemen employed an open, inter-sectoral and multi-organizational recruitment process for candidates. Of the small cohort involved, Jordan experienced a 100% completion rate and Yemen a 75% completion rate as compared to no one completing by those nominated by another country, which had employed a closed ‘in-house you, you and you’ go to this program ‘process’.

In 2005, a one-year professional development certificate based on the first year curriculum of the
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Africa ECDVU has been successfully tailored for delivery in the Middle East, and is being piloted on a country-development basis in Yemen.

Looking to the Future

Our purpose in presenting the material in this chapter is to elicit discussion among Western distance educators and postsecondary institutions regarding their *roles and responsibilities to the Majority World* as globalization of learning continues apace in the twenty-first century. We also believe that Majority World institutions and scholars must be included in this dialogue.

As Mamphela Ramphele, Managing Director, of the World Bank, has pointed out, both Western and Majority World universities have some work to do in tackling issues arising out of the proliferation of virtual education providers (Ramphele, 2003). She argues that there is a pressing need for international quality assurance mechanisms with “minimum common standards worldwide” and points to instances of both regional, e.g., Central American, and thematic efforts, e.g., medicine, where some steps have been taken (p.14). Moreover, she posits the need for some “rules of the game” which ensure to both the provider and recipients that basic requirements are embedded in program delivery:

- minimum infrastructure; clear mission statements; facilities and staffing requirements; appropriate, transparent, and accurate information on policy, study programs, and feedback mechanisms of foreign providers, including channels for complaints and appeals; capacity building partnerships between foreign providers and local institutions; comparable academic quality and standards including the full recognition, in the home country, of degrees and qualifications delivered by foreign providers in a developing country.

(Ramphele, p.15)

So, “What are the responsibilities of postsecondary institutions in a globalized market and what can we learn from ECDVU?”

Firstly, lay the groundwork: build on research and connections that have been established between your institutions and academics, and those in Majority World countries; in other words, employ motivated instructors with prior connections in the country or region and draw on in-country academics who can bolster the program and foster both scholarly and practitioner networking. Secondly, carefully choose locations where there is national and institutional policy support and involve this broader community from the beginning of program development; relatedly, adopt a
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*modus operandi* that is truly generative and reflective of the indigenous knowledge base of the culture to be served. Thirdly, target highly motivated individuals who are committed to staying in country and creating networks of scholarly and practitioner-based learning (and build the networking into your programming with a “ripple impacts” model). Fourthly, develop programming that uses appropriate technology to the region being served. Fifthly, offer strong learner support mechanisms that keep learners connected and engaged at all stages of the program. Finally, utilize ongoing monitoring and feedback mechanisms to maintain quality assurance in the forefront of program implementation and delivery.

Looking to the future of e-learning for the next decade or more in African and other Majority World countries, we can posit that there will be increased connectivity which will, in turn, contribute to the growth and sustainability of locally-based and international networks of scholars and practitioners. Increasingly, learners in Majority World countries will benefit from a growing resource base, e.g., the expansion of open source repositories for curriculum and other learning materials as well as freely accessible digital libraries. Let us strive to adopt the “public good” approach of institutions like MIT that keep learners connected and engaged and international organizations like the Commonwealth of Learning (COL). Using ICTs appropriately and, some might say, ethically, we can help contribute to a *brain gain* rather than a brain drain in the Majority World.
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References


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Russell, T. (1999). The no significant difference phenomenon as reported in 355 research reports, summaries and papers. Montgomery, Alabama: IDECC.


