

*Network for Capacity Building and Knowledge Exchange in the
Telecommunications Sector (NetTel@Africa)*



First Quarterly Progress Report
1 June to 1 September 2002

USAID/Leland Initiative Award Number: GDG-A-00-02-00008-00

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INTERNEWS 1st Quarterly Progress Report

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Quarterly Highlights

On 25 July 2002, Washington State University Center to Bridge the Digital Divide was awarded the sum of US\$3,631,806 to provide support for a program in Africa called the Network for Capacity Building and Knowledge Exchange in the Telecommunications Sector, nicknamed "NetTel@Africa." The strategic goal of this program is the improved provision of information communications technologies (ICT) and services in Africa by establishing an African-led network for capacity building and knowledge exchange in the telecommunications sector. NetTel@Africa, also referred to as "NetTel", will contribute to improved sector policy formulation, harmonization, and implementation in Africa. NetTel provides a framework for linking global, regional, and national capacity building activities, including those facilitated through regional bodies and in the context of international agreements.

The first quarter was dedicated to the start-up of the NetTel program. Activities include the following:

- [June] Development of a web site and document archive for the NetTel program.
- [June & July] Drafting and issuing of sub-agreements by WSU with seven African universities, two U.S. universities, and one U.S. regulatory association.
- [June & July] Drafting of sub-agreements by WSU that will be used by other donor organizations with one African training institute and one U.S. university.
- [July] Launch of NetTel's Peer-to-Peer component in Portland, Oregon.
- [July] Proposal from UK-based CTO, with potential funding from DFID, for harmonizing capacity building with NetTel@Africa were reviewed.
- [August] In Nairobi Kenya, NetTel's director (Maria Beebe) and deputy director (Matthew Mitchell) presented a three-day e-learning workshop for the Kenya Education Network and conducted a stakeholder meeting for potential new members to the NetTel program in Nairobi, Kenya.
- [August] Also in Nairobi, NetTel's deputy director presented an overview of NetTel at both the African Advanced Level Telecommunications Institute and the first COMESA meeting on telecommunication & ICT policy.
- [August] NetTel's director convened a week-long workshop for the writers of the forth-coming book [Africa.Dot.Edu](#) which will serve as baseline studies of the state of ICT in various sectors.

Status of NetTel's Components

NetTel@Africa comprises four central components. The first is a **training component** designed to help telecommunications policy makers and regulators develop the capacity to draft and implement advanced level policies and rules that shape the telecommunications and ICT sectors. Currently, curriculum for the training program is being aggressively developed by NetTel's African academic partners, who are working in collaboration with the regulatory community. Anticipated date of completion of the curriculum is December of 2002 with pilot testing expected to begin in April of 2003.

The second component of NetTel is the formation of a **knowledge exchange network** between African and non-African telecommunications policy makers and regulators. This part of the NetTel program is called Peer-to-Peer (P2P). While the Peer-to-Peer component is still under development, a number of visitations and professional exchanges between African and U.S. regulators have already been facilitated by this component. Development of the Peer-to-Peer network is expected to be ongoing.

The third part of NetTel is a **research component** focused on building the stock of descriptive and analytical studies of issues related to the telecommunications and ICT sectors. Commissioned papers, such as, the collection of papers that make up Africadotedu are due for completion in December 2002. Moreover, competitive research grants will be awarded to qualifying graduate students to conduct a study that conforms with NetTel's research agenda, which is currently under construction. Anticipated date of completion for the research agenda is December 2002.

The fourth aspect of NetTel is a **community to community (C2C) component** geared toward encouraging local uptake of ICT tools for economic and social development. The C2C is a platform for communities to share successful ICT-uptake initiatives and projects. This NetTel component is the newest and the least developed, however intensive work is currently underway to launch this community-to-community network during the next quarter.

Program Achievement 1: Launch of NetTel Web Site

Two web sites have been built to support the NetTel@Africa program. The first site was developed by Dr. Hashim Twaakyondo of the University of Dar es Salaam; this site can be found at <<http://nettelafrica.net/>>. The second site was developed by Drs. Maria Beebe and Matthew Mitchell of Washington State University; this site can be found at <<http://cbdd.wsu.edu/networks/nettelhome.html>>. Between these two sites, documentation is provided that describes NetTel's objectives, strategic goals, anticipated impacts, partners, resources, and updates of current NetTel events. Also posted on these web sites are archives of documents detailing the agreements reached, the content of curriculum being developed, and presentations given at previous meetings. Changes in the structure and the logistics of this combined web site are anticipated to be implemented during the second quarter.

Program Achievement 2: Agreements between Network Partners

Acting as the executing agency for the Leland Initiative, WSU Center to Bridge the Digital Divide has reached agreement with various network partners on the scope of work and the

resources necessary for completing the work. Not all of the partners involved in NetTel will receive the funding through WSU; however, most if not all, agreements on the work to be accomplished have been drafted by WSU Center to Bridge the Digital Divide. Those institutions that have received formal Sub-Agreements from WSU are listed below. Also indicated in the following list is the essential function of each sub-agreement.

- University of Botswana for the development of the ICT Technologies module(s) and the delivery of the NetTel curriculum.
- University of Colorado for a) the provision of development support to the universities of Dar es Salaam, Western Cape, and Zambia, b) the development of joint Masters degrees with qualified NetTel academic partners, and c) the development and implementation of a quality assurance plan.
- University of Dar es Salaam (Tanzania) for the development of the Financial Analysis module(s) and the delivery of the NetTel curriculum.
- University of Dar es Salaam for the coordination of NetTel's activities.
- University of Florida for the provision of development support to the University of South Africa.
- University of Fort Hare (South Africa) for the development of the Macro Environment and Implications of Telecommunications module(s) and the delivery of the NetTel curriculum
- University of South Africa for the development of a) the Policy, Law, Regulation, and Institutions module(s) and b) the Approaches to Regulation module(s), as well as the delivery of the NetTel curriculum.
- University of Western Cape (South Africa) for the development of the Provider Resource Allocation, Assignment, Registration, and Enforcement module(s) and the delivery of the NetTel curriculum.
- University of Witwatersrand (South Africa) for the development of the Universal Access and Quality of Service module(s) and the delivery of the NetTel curriculum.
- University of Zambia for the development of a) the ICT Industry and Markets module and b) the ICT Applications module(s), as well as the delivery of the NetTel curriculum.

Program Achievement 3: Launch of Peer-to-Peer Component

The launch of the Peer-to-Peer component of [NetTel@Africa](#) has involved the participation of telecommunications association from Africa (TRASA and ATRN) and the U.S. (NARUC); the Common Market for Eastern and Southern Africa (COMESA); regulatory bodies in Africa (Botswana, Kenya, Morocco, Tanzania, Uganda, and Zambia) and state public utilities commissions in the U.S. (e.g. Oregon, Maine, Montana, Alaska); academic communities in the U.S. (Center to Bridge the Digital Divide at Washington State University and the National Regulatory Research Institute (NRRI) at Ohio State University); the private sector (the Barrett Group) and a not for profit group in Portland, Oregon -- the African Women Harambee Association. The launch gave the African participants an opportunity to start building relationships and start engaging with key players in telecommunications policy and regulation across various levels -- commissioners from FCC, state, county, and city level as well as interact with US private citizens in order "to pull together for the good of the global community."

The African delegation included: from southern Africa, Susan Mulukita from Zambia Communications Commission, Colonel A. Nalingigwa from Tanzania Communications Commission, Twoba Koontse from Botswana Telecommunications Authority, Thapelo Mogopa, TRASA Programme Manager, and Kagiso Baatswhana, TRASA Programme Economist. From east Africa, the delegation included John Omo from the Communications Commission of Kenya, Victoria Byoma from the Uganda Communications Commission, Gilbert Maeti from COMESA and Francis Kituto from USAID/REDSO. Finally, from the Arab world Oman Mouddani from the ANRT in Morocco was the only participant. Egypt and Nigeria were unable to send participants.

In addition to meeting with selected telecommunications committee staff and attend meetings of the NARUC Committee on Telecommunications, African regulators were given the opportunity for structured interaction with U.S. state and federal regulators (commissioners and staff). The objectives of the structured interaction were to: (a) clarify peer-to-peer technical assistance needs most critical to participating African regulatory agencies; (b) identify NARUC member resources and interest that may respond to desired peer-to-peer technical assistance; and (c) outline most efficient mechanisms and approaches to implement responsive peer-to-peer assistance.

Program Achievement 4: KENET E-Learning Workshop

This was a three-day training workshop on E-Learning for Kenya Education Network (KENET) facilitated by Drs. Maria A. Beebe and Matthew Mitchell from WSU's Center to Bridge the Digital Divide. The workshop took place at Jomo Kenyatta University of Agriculture and Technology (JKUAT) in Nairobi, Kenya. The dates of this activity were 6 to 8 August 2002. The workshop's participants included roughly 50 representatives from 22 different colleges and universities from around Kenya. A detailed description of the skills and topics covered during this three-day workshop can be found on the following web site:
http://cbdd.wsu.edu/networks/kenet/Kenet_Workshop_Page_actual.htm

As a result of this workshop, participants learned the following:

- Why E-Learning is a viable option in higher education.
- What is required to begin employing E-Learning practices.
- What some of the "best practices" are for E-Learning.
- How to build web pages using Netscape Composer.
- How to assess the quality and effectiveness of Internet resources.

While we have not yet received a summary of the participant's feedback regarding the workshop, the immediate verbal feedback indicated that there is strong interest in E-Learning among the represented institutions. While some participants expressed dissatisfaction with the limited functionality of the facilities available at JKUAT, most participants were patient and flexible, which contributed to a positive learning environment for everyone.

Three important lessons for E-Learning were explored by the workshop participants. The first was that the process of learning new computer skills often benefits from collaboration and team-learning. During the workshop, many participants worked in small groups to build their web sites, forming learning synergies that enabled many to extend their understanding and skill level.

The second lesson was the idea that E-Learning promotes greater proficiency and effectiveness by students in their use of computers and the Internet. By digitizing course content and posting onto the Internet, students must use technology to access their course work. E-Learning, if employed adequately and appropriately, can help students learn course content as well as the necessary skills for succeeding in an information-driven economy.

The third lesson learned was that E-Learning is no panacea. E-Learning is a powerful tool for augmenting education; however, like any tool, its effectiveness is dependent on how it is applied. There are two parts to this lesson. First, excellent teaching and learning practices are just as important in E-Learning as they are in the traditional classroom. Second, E-Learning as a venue for teaching and learning is often (and perhaps wisely) used as one of many modes for delivering course content. Other venues E-Learning is regularly bundled with include group-learning, mentoring, problem-based learning, project-based learning, and experiential learning, among others. The point of this lesson was that E-Learning is not a uniform “one-size-fits-all” platform that will replace traditional classrooms; instead E-Learning can and should be used as another tool in the educators’ toolbox.

Program Achievement 5: Strategies for Expanding NetTel@Africa

A series of meetings and presentations has been initiated with potential new NetTel partners in Kenya. The first meeting was with the Communication Commission of Kenya (CCK); a day-long meeting with AFRALTI was conducted; and a presentation was given to COMESA. Each of these events is part of a broader strategy for expanding the NetTel@Africa program. Below is a synopsis of these three events.

CCK

In the office of the Commission Secretary of CCK on 9 August 2002, Dr. Maria Beebe provided an overview of the NetTel@Africa program to representatives from strategic Kenyan institutions. Details of those who attended this meeting are listed below:

John Omo	CCK	Omo@cck.go.ke
Simon Moshiro	COMESA	Smoshiro@comesa.int
T.M. Waema	UON	Waema@uonbi.ac.ke
Mohamed Noorani	AFRALTI	Afralti@net2000ke.com
Angelus Paul	AFRALTI	Afralti@net2000ke.com
Francis Wangugi	CCK	Wansusi@cck.so.ke
Juma Kandie	CCK	Kandie@cck.go.ke
Jackson M. Odote	KU	Odote@ku.ac.ke
Leonard M. Mengo	JKUAT	lmengo@yahoo.com
Maria Beebe	WSU & USAID	mbeebem@wsu.edu
Matthew Mitchell	WSU	Matthew_mitchell@wsu.edu

Dr. Beebe emphasized the following details of the NetTel@Africa program: Principles of the Network, Services of the Network, Objectives of the Network, and Description of the Current Partners. Following Dr. Beebe’s presentation, there were a number of concerns raised by those in attendance. These concerns were aggregated by Simon Moshiro and listed below:

- It appeared that all relevant modules had been taken up by the existing partner universities/training institutions;
- Modules on training trainers/teachers should also be developed under the network to cater for education in the ICT sector;
- There might be difficulties for the Kenyan Universities to collaborate in an initiative that is being developed under a regional organization (SADC/TRASA) to which Kenya/CCK does not belong;
- The market for the modules appears to be restricted, making sustainability questionable as there are not many regulatory personnel to be trained on a long-term basis;
- The conditions for collaborating with the current universities/training institutions were not quite clear and certain.

To these concerns, Dr. Beebe noted that the NetTel@Africa partnership was founded on the principle that the network would expand, and importantly, all of the current network partners understand and agree with this notion. Furthermore, Dr. Beebe suggested that those at the meeting who were interested in participating in NetTel should select a representative to attend the upcoming September NetTel Working Group Meeting in Cape Town, South Africa. Moreover, Dr. Beebe suggested that there is flexibility in deciding the specialization at the Masters level and that the target audience is not limited to regulators but to a broader audience, including Ministry people, judges and lawyers and others who have a stake in the sector. Lastly, it was decided that CCK would function as the conduit for organizing participation of the Kenyan institutions in the NetTel program. The meeting concluded with an assessment of those who were interested in participating in the NetTel program. All at the meeting expressed an interest.

AFRALTI

This day-long meeting with AFRALTI was generally geared to harmonize understanding between NetTel's Deputy Director and AFRALTI personnel about the NetTel Program and its intended use of E-Learning. The entire meeting took place in a computer lab on AFRALTI's Campus. In attendance of the meeting were four people (see below). The first topic discussed was the NetTel@Africa program. The AFRALTI personnel in attendance will be closely involved in the development of curricula for the Service Pricing module, which is a significant component of NetTel. As requested by these AFRALTI staff members, a general overview of the NetTel program was given with particular emphasis on how AFRALTI and the Service Pricing Module fits into the overall structure of NetTel@Africa.

The next topic vigorously explored was E-Learning. Currently, AFRALTI use E-Learning techniques is quite limited. This is something AFRALTI's leadership desires to change. Considerable time was spent discussing the challenges and benefits of E-Learning. A particularly sensitive issue was that of assessment within an E-Learning structure. One of the AFRALTI staff members was very concerned about E-Learning's vulnerability to assessment fraud (i.e., students hiring others to take their exams or complete their work).

The last topic discussed was the use of certain online learning platforms. Among those considered were Blackboard, WebCT and KEWL. Because the KEWL platform is most likely to

be used by NetTel, a large amount of time was spent specifically working with KEWL. A demonstration of the KEWL platform was provided.

COMESA

At the College for Communication Technology (Nairobi, Kenya) on 13 August 2002, NetTel's deputy director presented to the COMESA delegates an overview of the NetTel@Africa program. The main activity to report is the 20 minute Powerpoint presentation given to roughly 250 attendees at the COMESA meeting. A copy of this presentation is available on <http://cbdd.wsu.edu/networks/nettelarchive.htm>. Please look for and download the document titled "NetTel Presentation at COMESA." The presentation was successful and there was considerable interest by the attendees in the NetTel Program. During tea and lunch breaks, a number of individuals voiced their interest in NetTel. Below are the names (and contact information) of those individuals who expressed interest.

- Nancy Sundberg, ITU Telecommunication Regulatory Analyst, Geneva Switzerland: nancy.sunberg@itu.int
- Ester Kaapanda, Deputy Director of Communications, Ministry of Works, Transport and Communication, Republic of Namibia: ekaapanda@mwtc.gov.na
- Nestor Misigaro, Director General of the Agency of Regulation and the Control of Telecommunications, Burundi: arct@cbinf.com
- Lalita Mayadas, Manager of Corporate Affairs at AirTel, Seychelles: lalita@airtel.sc
- Rufus Andrew, Arivia.kom, Sandon, South Africa: rufus.andrew@arivia.co.za
- William Melody, Managing Director of Lirne.net, Lyngby, Denmark: melody@lirne.net
- Patrick Omutia, Director of Kenya College of Communications Technology, Nairobi, Kenya: director_kcct@form-net.com

Program Achievement 6: Africadotedu

In collaboration with Banji Oyeyinka and Lynn Mytelka from the United Nations University (UNU) Institute for Technology (INTECH) and two editors from the Madanmohan Rao from Inomy and Koffi Kouakou from, the Program Director convened an editorial workshop at the UNU INTECH in Maastricht to outline the contents of a book entitled Africadotedu and to review with the authors the first draft of their papers. The introduction to the book is as follows:

“ICTs like the Internet have a huge potential as a positive change factor across a wide range of sectors in Africa but their diffusion and usage have faced massive challenges in the past. In much of Africa, the situation is now improving for the better, and this book is the first to chronicle and analyse the growth of the Internet in Africa and especially highlight the role of the education sector. What kind of impact is IT having on educational institutions, systems, content and processes in Africa? And what critical roles does the higher education sector play in developing local capacities in pedagogy, research, publishing, healthcare, e-commerce and cyberlaw? These are the two most critical sets of questions facing researchers, educators and policymakers in Africa today, as well as in the development community at large.”

The book will be published by McGraw Hill India and possibly as a joint publication with UNU INTECH/Japan by the end of 2002 or early 2003. The tentative chapter titles are as follows:

Part I: The Context

1. State of Higher Education in Africa (Association of African Universities)
2. The Evolution of the Internet in Africa (Mike Jensen, Independent Consultant)
3. Issues related to Higher Education, IT, and Economic Growth (Kasirim Nwuke, UNECA)
4. Telecommunications/ICT Policy and Regulation and Implications for Higher Education (John Omo, Communications Commission of Kenya)

Part II: Multi-country/Transnational/Regional Initiatives

5. The African Virtual University (Magdalen Juma, Kenyatta University)
6. African digital libraries (Buhle Mbambo, University of Zimbabwe)
7. Community Learning Centres (Mike Jensen, Independent Consultant)
8. Distance Learning and Open Learning (Anand Rumajogee, Mauritius)
9. Open Content (Derek Keats, University of Western Cape; Mark Shuttleworth, HBD Investments)
10. The Internet and Healthcare in Africa (Salah Mandil, WHO)
11. Regional Governance: Lessons and Challenges (Pierre Dandjinou, UNDP)
12. Cyberlaw including E-commerce (Cosmas Zavazava, ITU)
13. E-commerce: AfricaOnline (Fred Mbugua, Africaonline)
14. Arab-Africa (Magda Ismail, MIT)
15. Partnerships, Alliances and Networks for e-Learning (Maria Beebe, WSU Center to Bridge the Digital Divide)

Part III: Country Case Studies

16. Tanzania (Beda Mutagahywa, University of Dar es Salaam)
17. Kenya (Henry Thairu, Jomo Kenyatta University)
18. Nigeria (Olalere Ajayi, NITDA and Inye Kem Abonta)
19. Comparative Analysis of Kenya and Nigeria (Banji Oyeyinka, UNU INTECH)
20. Zambia (Jorry Mwenechanya, Mc Link Consulting)
21. Egypt (Raafat Raadwan, IDSC)

Looking Ahead: Program Plans for the Next Quarter (Sept-Nov 2002)

For more details, please review the three attached pdf files which show the workplans for (1) WSU as the executing agency; (2) UDSM and TRASA as coordinators for key activities; and (3) the academic and training institutions.

- NetTel Work Group Meeting at Cape Town on 9-13 September 2002 (take a sneak preview at http://cbdd.wsu.edu/networks/Meetings/CapeTown_2002/cpt02_home.htm)
- Amend subagreements to add funds for the second tranche of the first year and for the second year
- Assistance to the Nigerian Communications Commission and planned African Telecoms Institute
- Coordination with DFID and SIDA
- Plan rollout and pilot testing of modules

- On-site training on the use of KEWL for network partners
- Initiate community to community (C2C) component, e.g. Public Affairs Network and other knowledge exchanges and learning partnerships

Implementation and Management Challenges

- **Communication** - The means by which the network members of NetTel@Africa communicate is emerging as a central and important issue. Currently, there are no established policies or protocols for managing this activity's communication. Not all of the network members share a harmonized understanding as to what has been agreed to and how the activity is moving forward. Communication practices need to be drafted and implemented to enable the viability of the network. Such practices may include: Design communication mechanisms that facilitate meaningful and productive interaction; Distribute clear and accurate descriptions of previously reached agreements to all NetTel members for expressed approval; Make available on the Internet an organized and accessible directory of NetTel's documents; Officiate a central source for all NetTel information; and Draft communication practices to which all NetTel members can agree. Expected date for the completion of recommended communication practices for NetTel is the end of November 2002.
- **M&E Plan** - A **monitoring and evaluation plan** for the NetTel@Africa activity has been drafted and refined. To complete this plan, a timeline for monitoring needs to be established and the indicators to be used for evaluating the success of this activity needs to be defined. The M&E will be closely linked to the research agenda. The expected date for the completion of the M&E Plan is the beginning of October 2002. Ita Mannathoko from RCSA/Botswana, Maria Beebe and Matthew Mitchell are collaborating to develop and implement this plan.

Final Notes from Program Director

NetTel@Africa continues to demonstrate the primacy of the following underlying principles

- African-led
- Connections with peers – between policy makers and regulators, academics, trainers, public and private sector, and citizens, across national boundaries through a combination of face to face interactions and virtual interactions
- Reciprocal exchanges
- Mutual benefits

Finally, although the program is in its early stages, the benefits to be gained from networking and building communities of practice are starting to be evident: network partners are talking to promote collaboration, cross-pollination and synergies; network partners are exchanging knowledge and forming learning partnerships.

Maria A. Beebe
 Program director, WSU Center to Bridge the Digital Divide
 15 September 2002