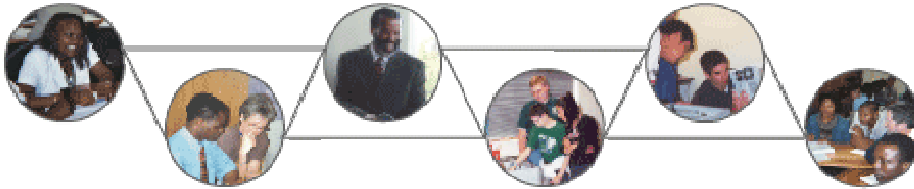


*Network for Capacity Building and Knowledge Exchange in
the Telecommunications Sector (NetTel@Africa)*

CBDD



We Help People, Communities and Institutions Apply Information Technologies

Eighth Quarterly Progress Report to Internews Network

1 March 2004 to 31 May 2004



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

I. INTRODUCTION

This Eighth Quarterly Report (1 March 2004 – 31 May 2004) provides an update of the four NetTel@Africa project components: Training Program in ICT and telecommunications policy and regulation; Peer-to-Peer Exchanges; Community-to-Community ICT Applications for Development; and Research on how ICT policies impact other sectors. Also provided in this report are summative descriptions of Eighth Quarter accomplishments and discussion of specific issues to be handled in the near future.

Significant progress has been made in Training Program and Peer-to-Peer exchanges during the Eighth Quarter. Specific NetTel activities highlighted in this report include the successful launch of the Post Graduate Diploma Programme, several Peer Exchanges and Site Visits, Training of Future NetTel Trainers, continued development of Community Networks in South Africa, and extensive preparation for the expansion of NetTel's curriculum to other African nations outside of SADC.

Box 1. NetTel@Africa Components

The Africa-based **Training Program in ICT Policy and Regulation** includes: development of ten courses at the basic level for the post-graduate diploma and ten courses at the advanced level for the master's degree at African universities; training for faculty members and their teams on the use of the Knowledge Environment for Web-based Learning (KEWL); development of academic programs in telecommunications at the graduate diploma and masters' levels; and development of an Executive Development Programme.

The **Peer-to-Peer (P2P)** exchanges focus on three types of relationships among and between Africans and their non-African peers: academic-to-academic (closely tied to the training program above); regulator-to-academic (linked to the training program); and regulator-to-regulator (fostering reciprocity agreements for training and knowledge sharing between regulatory bodies in Africa and the U.S.)

The **Community-to Community (C2C) ICT Applications** demonstrate the relationship between telecommunications policy and regulations with key sectors critical to the economic development process, particularly education. The C2C networks will help policy makers and regulators understand the concrete ICT applications and implications of legislation on universal access policies and funds.

The **Research Program** focuses on monitoring and evaluating the progress of the Training Program and also provides a mechanism for collecting and analyzing new content that will feed the various courses that compose the Training Program.

II. PROGRESS ON PROJECT COMPONENTS

1. Training Program in Telecommunications Policy and Regulation

A. Summary of Eighth Quarter Accomplishments

NetTel's Post Graduate Diploma programme was rolled out in March 2004. Currently there are 43 students registered in the five Semester One courses. These students are locally registered among three African universities: University of Dar es Salaam, University of Western Cape, and University of Zambia. Lecturers are from five African universities—Universities of Botswana, Dar es Salaam, Fort Hare, South Africa and Zambia. Addendum A provides a roster of the current Semester One NetTel students. The courses offered in Semester One include the following:

- TR501 – Macro Environment and Telecommunications
- TR502 – ICT Technologies
- TR503 – ICT Markets and Industries
- TR505 – Financial Analysis
- TR506 – Approached to Regulation

Other Training Program accomplishments include a “Training of Trainers” event held in Abuja, Nigeria.

i. Course Instruction

The NetTel Instructional Team engaged in an intensive process of putting into practice the concepts, principles, and skills of eLearning that have been discussed over the past year. Lessons learned and ideas for improvement will be shared during an upcoming NetTel Symposium on ICT/Telecoms Policy and Regulation to be held at UNISA (Pretoria, RSA) on 28 July – 1 August 2004. Instructors will have an opportunity to meet their students; the second semester will begin 15 August 2004. All ten Post Graduate Diploma courses will be run during Semester Two.

ii. Course Development

Course developers of Semester Two courses have been notified that their materials must be ready for instruction by the end of July 2004. Additionally, all NetTel course developers have been reminded that Masters-level courses must be complete and ready for roll out by December 2004. Ten courses will be available for enrollment in February 2005 by those students who successfully complete all ten Post Graduate Diploma courses.

Special emphasis was placed on the development of two Post Graduate Diploma courses: TR504 Spectrum Management and TR508 Service Pricing. Maria Beebe and Dale Hatfield (University of Colorado) met with content

specialist to refine the content and structure of TR504 at the University of Western Cape, while Dr. Jackie Horrall (University of Pittsburg by way of University of Florida) met with staff from AFRALTI to complete TR508.

iii. Geographic Expansion

Extensive preparations for the expansion of NetTel's diploma/degree programs were accomplished for Uganda, Nigeria, Rwanda, Mozambique, Ethiopia and Senegal. These preparations include trainings, administrative coordination meetings, and planning. Additionally, exploratory talks were conducted with potential partners from strategic institutions regarding the future expansion of NetTel to other African countries and select regions in Asia.

v. Nigeria ToT Event

Maria Beebe facilitated NetTel's Training of Trainers in Abuja, Nigeria along with colleagues: Dr. Tsubira (Makerere University), Wesley Nitshkie and Zulfa Plander (University of Western Cape), and Funlola Akiode (Nigerian Communications Commission). Participants included faculty from Senegal, Ethiopia, Uganda, Nigeria, Mozambique, Rwanda, and Tanzania. During the training Nigeria's President who launched the Digital Divide Institute, the training venue visited with the workshop participants.

B. Future Actions for the Training Program

During the Ninth Quarter (1 June to 31 August 2004) the following objectives for NetTel's Training Program will be undertaken:

- Semester One courses will be completed by 15 August.
- The NetTel Symposium on ICT Policy and Regulation will be convened at UNISA in Pretoria on 28 July – 1 August 2004.
- Course materials for the Master Degree program will be refined and prepared for rollout.
- Universities in Uganda, Rwanda, Nigeria, Mozambique, Ethiopia, and Senegal will join the NetTel network.
- National University of Rwanda and University of Maryland to take the lead in the development of a VOIP module.
- Four Nigerian Universities (Jos, Lagos, Nigeria at Nsukka and Obafemi Awoloyo University) will take the lead in the development of courses that could be used for a Masters in Telecommunications Management.
- National University of Rwanda and University of Maryland to take the lead in the development of an Executive Development Program in Telecoms Policy and Regulation. This would require compressing the existing material and for each course to be presented in 2 days so that

regulatory bodies can request customized training from a set of 2 days courses.

- CBDD will work closely with UDSM and Makerere University to locate funds for an Africa-based coordinator position to handle all future details related to program registration and course enrollment.

2. Peer-to-Peer (P2P) Exchanges and Network

A. Summary of Eighth Quarter Accomplishments

From Africa to US

Two important visits from partners in Africa were conducted.

-The first was Former Ambassador Percy Mangoela from Lesotho. Mr. Mangoela is a commissioner of the Lesotho Telecommunications Authority. During his visit, Mr. Mangoela met with staff from the Federal Communications Commission and the PUC of Washington D.C., North Carolina and Washington. He also visited Washington State University and University of Colorado at Boulder. The central purpose of Mr. Mangoela's visit was to attend the International Session of the NARUC annual meeting in Washington D.C.

-The second visitor was Dr. Henry Thairu, the Deputy Vice Chancellor of Jomo Kenyatta University of Agriculture and Technology. Dr. Thairu met with a number of departments and research centers at Washington State University as a way to explore future connections in academic partnerships between WSU, JKUAT and the Kenyan Education Network. Also during his visit, plans were made for an upcoming educational training event scheduled for 14-18 June at the JKUAT campus.

From US to Africa

- Denise Parish from Wyoming PUC worked with NCC on regulatory accounting.
- Scott Delacourt from FCC Wireless presented on the development of a regional roaming network at the ECOWAS forum on IT.

From Asia to US

-John Ure from the Telecommunications Research Project based at the University of Hongkong came to visit to explore collaboration with Asian universities.

B. Future Actions for Peer-to-Peer Exchanges and Network

- Plans were made and confirmed for several NetTel faculty (Toks Oyedemi from the University of Fort Hare, Dr Kaijage and Mr Tobias from University of Dar es Salaam) to attend an upcoming training event in telecommunications regulation at the PURC (University of Florida). During their visit to the U.S. some of these faculty may visit WSU for collaboration on current and future work.

- In preparation for NARUC's Western Conference for Public Service Commissioners meeting (13-16 June 2004), the CBDD is funding the participation of Dr. Tusubira (Makerere University) who will speak on the Future of Regulation in the African continent.
- University of Zambia will host a Capacity Building Workshop on 2-6 August 2004 to discuss peering requirements by African regulators.

3. Community-to-Community ICT Applications Networks

A. Summary of Eighth Quarter Accomplishments

Management Sciences Network (University of the North): Doreen Hauser-Lindstrom was one of the international guests who presented at The African Management Sciences Network's workshop, 'e-learning in a residential tertiary institution – is it worth all the fuss?' The International conference was held February 18-19, 2004 at the University of the North in Limpopo, South Africa and funded by the Knowledge Exchange & Linkages Project (KELP) and in cooperation with Bathlami. Sixty-six participants were involved in the two-day workshop. A third day was built on to the schedule for in-depth exploration and University of the North faculty who were committed to incorporating e-learning in to their courses. As a spin off from the International e-learning conference, Doreen Hauser-Lindstrom taught a two-day seminar, February 23 & 24th, 2004 at Edupark in Polokwane, focused on sharing ideas and successful examples of current Washington State 4-H technology programs. The overall format for the two day conference was to provide an avenue for conference attendees (University students and faculty, government officials and business leaders) talk, network and learn from one another. Doreen presented numerous program ideas, with the goal of participants selecting only the elements that would fit the local technology needs of South African youth, families and communities.

Network for Teaching and Learning and Technology (University of Witswatersrand): Alison Olzendam gave a hands-on workshop on teaching and learning and technology for teachers from 85 schools in Gauteng. The teachers are from the most impoverished areas around Johannesburg. Six hundred applications were received for 60 spaces. Workshop materials will be used by Gauteng Online, along with the University of Witswatersrand as part of their master degree training program.

B. Future Actions for the Community-to-Community Networks

- Funding from ALO for the Network for Teaching and Learning and Technology Future has ended. However, as indicated above, workshop materials will be incorporated in the Masters degree program of the University of Witswatersrand, Faculty of Education.
- The Youth for Technology Programme has been requested by the Minister of Education in Rwanda. CBDD is mobilizing funds to send 6 youth and 3-4 adult volunteers during the first two weeks in August. Several follow-on

activities include: (1) as a medium-term activity, embedding the computer build activity as a full blown curriculum in vocational training which could lead to an A+ certification for entry-level computer technicians and (2) a longer-term view of assisting the Ministry of Education with teacher training focused on the use of ICTs in secondary schools, helping with digital content development, connecting schools and communities globally, and putting in place a 4H youth exchange programme, one that would bring secondary school students from Rwanda to Washington State (all of which are subject to success in fund raising).

4. Research Component

A. Summary of Eighth Quarter Accomplishments

Initial ground work has been laid to develop an evaluation plan for the NetTel Post Graduate Diploma program. This plan includes two assessment tools to be administered during the NetTel Scholar's Symposium. The first tool will establish a baseline data point for student attitudes toward eLearning. NetTel's coordinators and faculty are interested in how students develop learning habits for the alternative pedagogical paradigm currently in practice in NetTel's training program. Results from this assessment will inform improvements in the design of KEWL, the structure of courses, and the general design of the NetTel program. The second assessment tool will measure student learning. Results from this tool will help course developers assess the quality of content as applied using eLearning techniques. The design of the student learning tool will take the form of a student questionnaire analyzed vis-à-vis results from the final examinations. The general design of the evaluation plan will follow Kirkpatrick's program evaluation model, providing longitudinal data at four levels: reaction, learning, behavior change, and impact.

B. Future Actions for the Research Component

- The evaluation plan described above will be set into motion beginning with the NetTel Scholars Symposium. This effort will be initially be administered by the CBDD with a plan to transfer control of the evaluation plan to an African-based coordinator over a six month period.
- Additional research proposals related to ICT and telecommunications policy and regulation will be explored with NetTel faculty and students during the Nettel Policy and Regulation symposium. Small research funds will be located and be available on a competitive basis for students.
- Preliminary discussions with Norris Dickhard (Benton Foundation), Bill Wright (EDC) and Sarah Tisch (Internews) regarding a reseach proposal on "Improving and Implementing Universal Service Policies To Expand ICT Access in Africa."

III. WSU MANAGEMENT/UDSM COORDINATION/MAKERERE UNIVERSITY

A. Eighth Quarter Accomplishments

An Advisory Council was formalized on 15 May 2004. The WATRA chairman (Ernest Ndukwe) was unanimously elected as Chairperson. The Advisory Council shall be responsible for approving policy, strategic direction, budgets, sustainability strategy, and overall monitoring and evaluation. Members of the Advisory Council shall elect one of their members to be chairperson of the Advisory Council. The members of the Advisory Council will be assisted by an Academic Board composed of Deans of the Faculties in the different universities and institutions that will participate in the training component (African and non-African). The Advisory Council will also identify, through a competitive process, an African-based NetTel@Africa Director. Creation of this new governance body will mark the initial steps toward establishing a sustainability plan for the NetTel program once the initial donor funding has expired.

Other management actions accomplished by the CBDD during the Eighth Quarter include processing sub-agreement invoices, travel documentation, and administrative practices of the diploma/degree programs. The CBDD has assumed the de facto role of acting as the registrar for the training programs and the facilitator of communications between faculty. This key role which the CBDD has assumed is one of the leadership and management activities performed by the CBDD that must be transferred to stakeholders in Africa.

Another accomplishment by the CBDD's management includes the stimulation of various expansion possibilities for NetTel. As described above, extensive preparations have been made to bring in institutional partners from Nigeria, Uganda, Senegal, Ethiopia, Mozambique and Rwanda. Through this process, additional interest in NetTel has been voiced by potential partners in Egypt, Sudan, Afghanistan, Jordan and Vietnam.

The coordination services provided by the University of Dar es Salaam (UDSM) include continued work on articulating agreement between current and future NetTel partners for network participation. The main emphasis of UDSM's effort has been on getting the MoU signed by authorized persons from these institutional partners.

With the expansion of NetTel DFID funding is being provided through CATIA with Makerere University as project lead and acting as interim secretariat for the Advisory Council.

B. Future Actions for WSU Management, UDSM Coordination and Makerere

1) The University of Zambia and ZCC will host a Capacity Building Workshop to pull together the various stakeholders from TRASA, WATRA, ARICEA and EARPTO and the relevant university partners.

- 2) Schedule a regular online meeting of the Advisory Council and the academic board.
- 3) A face-to-face meeting is scheduled among course developers to follow the NetTel Scholars Symposium to discuss shifting of roles and responsibilities as we move to the third and last year of USAID funding.

IV. PROJECT DIRECTOR FINAL NOTES

If birds travel without coordination, they beat each other's wings.

Swahili proverb

To summarize:

As we enter the third year of NetTel@Africa, the four components, also known as four pillars are at various stages of development (see Addendum B for a pamphlet on NetTel).

A) For the training pillar, the following African universities are engaged at various stages:

1. University of Botswana
2. University Cheick Anta Diop
3. University of Dar es Salaam (with registered students)
4. University of Fort Hare
5. University of Jos
6. University of Lagos
7. University of Nigeria, Nsukka
8. University of South Africa
9. University of Western Cape (with registered students)
10. University of Witwatersrand
11. University of Zambia (with registered students)
12. Addis Ababa University
13. Eduardo Mondlane University
14. Makerere University (with registered students ready to begin in August 2004)
15. Nairobi University
16. Obafemi Awolowo University, Ile-ife
17. National University of Rwanda
18. AFRALTI

Along with the following US universities:

1. University of Colorado at Boulder
2. University of Florida (PURC)
3. University of Maryland (CIDCM)
4. Washington State University (CBDD)

And practitioners from:

1. TRASA
2. WATRA
3. ARICEA
4. EARPTO
5. FCC
6. Department of Commerce (NTIA)
7. State PUCs (Alaska, North Carolina, Oregon, Washington State, Washington, DC, Wyoming)

First semester has rolled out in three universities who received faculty senate approvals with students who are practitioners from regulatory bodies, Department of Communication, private sector operators, NGOs; second semester is scheduled to begin on August 15 with plans to teach both semester 1 and semester 2 courses. Backup lecturers are being identified for each of the courses. New courses are being developed for a Masters in Telecommunications Management. Plans for compressing existing courses into an Executive Development Programme are underway. A new version of KEWL (the online learning platform) KEWLNextGen is being planned for rollout in January 2005 by the University of Western Cape.

B) The peer to peer component (peering) is getting formalized to include exchange visits, field attachments and so on to include Africa-Africa, Africa-US, Africa-Asia, Africa-Europe, and Africa-Canada. Recent examples included a visit from Denise Parrish from Wyoming to work with colleagues from the Nigerian Communications Commission on a Uniform System of Accounts for telecommunications operators.

C) The research is getting an infusion of ideas not only from the student practitioners but also from other CATIA components and other potential donors, such as US private foundations.

D) The ICT applications for development which started out as knowledge exchanges and learning partnerships between higher education institutions, primarily in South Africa around the use of the Internet for teaching and learning is adding ideas on youth to youth exchanges around computer build, robotics and other ICT applications.

Other regions, such as the UNDP Asia Pacific Development Information Programme, The University of Hongkong Telecommunications Research Programme, have expressed interest in adapting NetTel. Regional programmes, such as, the Southern African Development Community's Regional Monitoring, Control and Surveillance of Fisheries (SADC MCS) Programme are requesting for lessons learned by NetTel.

Funding for geographic expansion is provided by DFID and SIDA through CATIA through its project lead for CATIA 1e, Makerere University; by bilateral missions, such as USAID/Nigeria and USAID/Rwanda through its agreement with the University of Maryland.

These multiple stakeholders with multiple leaderships with different roles and responsibilities require coordination that can only approximate as best as the humans involve could what birds do effortlessly.

Addendum A: NetTel Students Registered in Semester One

Last Name	First Name	Institution
Timanywa	January Julius	UDSM
Mugandila	Petro	UDSM
Kagosi	John J.E.	UDSM
Mwita	Adamu	UDSM
Kapenjama	Wilman N.	UDSM
Mwambulukutu	Hawa	UDSM
Manase	Samuel B	UDSM
Tesha	Rose J	UDSM
Matindi	Annete E M	UDSM
Mwanjesa	Oscar Albert	UDSM
Mramba	Makange M	UDSM
Tenson	Herbert	UDSM
Chilimo	Wanyenda L	UDSM
Tossy	Titus	UDSM
Ntavhaedzi	Albert	UWC
Chindia	Jei	UWC
Dlepu	Lizeka	UWC
Kgamede	Mlindi	UWC
Nivi	Khathazile	UWC
Leutle	Gloria	UWC
Mahape	Ramagoma	UWC
Mbekeni	Thembisa	UWC
Mbolekwa	Ayanda	UWC
Mjebeza	Thando	UWC
Mkrakra	Vuyani	UWC
Mnqetha	Nomaefese	UWC
Molawa	Moeletsi	UWC
Mopeli	Shoeshoe	UWC
Nchabeleng	Ashwald	UWC
Netshikweta	Alufheli	UWC
Nkgadime	Bethuel	UWC
Phoshoko	Silas	UWC
Ruplal	Praneel	UWC
Tlhabi	Obakeng	UWC
Tshweu	Malesela	UWC
Woko	Nonkululeko	UWC
Mulusa	Nicholas	UNZA
Longwe	Elly	UNZA
Mwanza	Richard	UNZA
Lukoza	William	UNZA
Mulanda	Christabel	UNZA
Muleta	Chimfwembe	UNZA
Mapo	Beston	UNZA
Mwakalinga	Charles	UDSM

Addendum B. NetTel Pamphlet