CURRICULUM CO-DEVELOPMENT WITH AFRICAN UNIVERSITIES: 
Fostering International Dialogues across Two Digital Divides

Pearl T. Robinson
Tufts University

Paper prepared for “A Changing Landscape”
Nuffic expert meeting on Effective Support to Tertiary Education and Research in Developing Countries

The Hague, The Netherlands
23-25 May 2005
Tufts University (Tufts), Makerere University (Makerere), and the UDSM have forged new ground in higher education through establishing Curriculum Co-Development (CCD) – a network-based model for teaching and learning. CCD is based on shared curriculum development and delivery, and utilizes Academic Technology in ways that support more complex learning and understanding. Within a CCD program, participating institutions cooperatively develop and teach course material using online exercises, discussion groups, the tools of distance learning, and problem-solving on subjects that require multiple perspectives and complex thinking.

At the heart of the CCD model is the metacourse, a set of two or more campus-based courses that are linked by an overarching theme, a core body of knowledge, overlapping readings, and a series of interactive web site exercises designed to involve groups of students at distant institutions in a common learning plan. It consists of all the lectures and syllabi associated with the individual on-site course; the web page (including text and image documents, video clips and links); and the new knowledge generated by students through their various online interactions.


Tufts University and US-AID’s Leland Initiative provided start-up funding. A grant from The Ford Foundation formally launched the Project, and support from the Carnegie Corporation of New York financed a training workshop held at UDSM in Tanzania.

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access to computers has always been a priority. Indeed, a significant portion of the Ford grant went toward establishing a Computer Lab for Makerere’s Faculty of Social Sciences.

In 2004 a grant from US-AID’s Education for Democracy and Development Initiative supported a TECHNOLOGY AND ACCESS project that created local institutional capacity to produce, catalogue and store digital materials for use in courses related to the study of Regionalism in Africa. For this phase of the collaboration, librarians played a critical role. Staff from Tufts’ Digital Collections and Archives and Tufts’ Tisch Library provided technical training for UDSM and Makerere library staff during a training workshop at Tufts, as well as on site at the respective East African campuses. Documents stored in the Digital Repository on African Regionalism are drawn almost entirely from materials collected by the CCD Project’s instructional staff during visits to some of Africa’s leading regional organizations: the East African Community (EAC), the Economic Commission for West African States (ECOWAS), the Southern African Development Community (SADC), and the United Nations Economic Commission for Africa (UNECA).

The DR on African Regionalism was envisaged as a resource for teaching and research. It should also provide a rich trove of background readings to prepare students for online Policy Chats with government officials, international civil servants, scholars, civil society activists – as well as with each other. The possibility of incorporating key staff members from these regional organizations into our virtual community was tested with UNECA in 2003 (see below), and with the proper incentives, digital repositories could be combined with interactive telecommunications in exciting new ways.

Now in its fifth year of implementation, CCD has evolved, expanded and adapted to meet the pressing needs and conditions prevailing at the African partner universities. Greater attention is now being paid to E-pedagogy by to experimenting with a variety of models for interactive exercises. The importance of adding a research component that focuses on learning assessments is critical to move CCD beyond the realm of hit-and-miss implementations to contribute to the still limited body of knowledge about the impact of academic technologies on learning outcomes – especially in Africa.5

**Bridging Digital Divides**

The Digital Divide is a metaphor for describing the gap between the technology-rich who have access to computers and the Internet at school, home and in the workplace, and the technology-poor, who have little to no access at all. Factors used to measure progress toward closing the digital gap include:

- increases in the number and deployment of computers,

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• student-to-computer ratios, and
• Internet access.

Across the continent of Africa, the rapid infusion of computers through schools and universities, the workplace, and Internet cafes, is making strides toward bridging this Digital Divide.

However a new Digital Divide is now apparent at some of the best schools and universities in the technology-rich countries of the world. It is the divide between those students who are being taught to use the Internet and computer resources in ways that enhance critical thinking and learning, and others who use computers primarily for information processing, storage and access, or to facilitate routine administrative and communications tasks. Some of the questions employed to assess whether an educational institution is attempting to bridge the new Digital Divide are as follows:

• How often are students using the Internet and other computer resources to learn?
• Are students using computers that employ sophisticated communication tools?
• Are students using computers that can handle large amounts of data?
• Are instructors getting training on how to use technology to enhance learning?
• How much thought are universities putting into the role technology should play in learning?\(^6\)

For the most part, the significant increase in the numbers and deployment of computers at universities in Africa has proceeded with little attention being paid to questions that address the promotion of a central role for technology in learning. The CCD Project defies that general pattern. Rather, it seeks to simultaneously bridge the divide in access to computers and the Internet, and use technology to enhance critical thinking and analysis.

**Bi-Directional Knowledge Production**

The *metacourse* builds on the diffusionist methods of distance learning – incorporating the Interactive capabilities and archive databases available through information technology. But its implementation differs from the standard practice of distance learning in important ways.

Typically, the distance learning model relies on teachers who broadcast the substantive course content to students located elsewhere. Tutors or proctors who assist with students and equipment at the distance site often second the remote instructor. Taking a different tack, the *metacourse* works with the notion that *knowledge receivers* should also be *knowledge senders*, and vice versa. The primary instructor for the course is on the ground with the students in each locale. Instead of assuming that one size fits all, the model allows instructors at each campus to prepare a syllabus tailored to the particular curricular and programmatic needs of the home institution. Students are encouraged to contribute materials of their choosing to the web site, thereby initiating discussion threads prompted by their own interests and concerns. The various WebPages together with e-mail permit asynchronous learning.

Thus the *metacourse* is a device for organizing and structuring asynchronous learning networks (ALNs). Such networks involve people who are learning together – but not necessarily at the same time or in the same place. ALNs are networks for anytime-anywhere learning. The model combines self-study with substantial, rapid, asynchronous interactivity with others, usually through the Internet. In ALN, learners use computer and communications technologies to work with remote learning resources, including coaches, resource persons and other learners, but without the requirement of being online at the same time. The most common ALN communication tool is the World Wide Web. However, software packages are now available to assist in designing ALN programs. Commonly used applications include Web-CT and BlackBoard’s CourseInfo software. The *metacourses* designed so far for the CCD Project have been structured within BlackBoard’s CourseInfo template.

The initial Ford grant funded the development of a prototype for the implantation of Curriculum Co-Development with African universities. We now have a basic tool kit that facilitates the necessary planning, training and coordination required if such collaborations are envisaged as a form of capacity-building with sustainable and mutually reinforcing performance expectations. Our tool kit consists of the following elements:

- The Software package (Courseware is loaded onto the local server at each institution. In addition to enabling the template to be shared broadly by other divisions of the university, this approach gives network users to access the coursesite without having to go through the Internet. Intra-network accessibility is especially important when bandwidth is a constraint.)
- Training Workshops for the collaborating Instructors to learn the technology and develop the *metacourse*
- A Calendar for the *metacourse*
- E-Tivity Planning Sheets
- Training Workshops for the Students (many of the African students will need to learn the basics of computer use as well as keyboarding)
- An Online Teaching Assistant
- A preliminary *metacourse* Assessment Instrument
  (A preliminary survey establishes baseline data on both e-readiness and preliminary expectations about international dialogues.)

The following are sample elements of the tool kit, as well as some examples of international dialogues that involved students in International Relations courses at Tufts, Makerere and the University of Dar es Salaam:

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7 [http://www.aln.org/alnweb/aln.htm](http://www.aln.org/alnweb/aln.htm)
**Figure 1**

**CALENDAR FOR THE METACOURSE: JANUARY 8 – JUNE 8, 2001**

<table>
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**Participating Universities**

- **University of Dar es Salaam**
  - **Topic**: Regional Integration
  - **Logon Time**: January 8 – March 1; March 25 – May 4

- **Tufts University**
  - **Topic**: Regionalism in African International Relations
  - **Logon Time**: Jan 17 – Apr 30

- **Makerere University**
  - **Topic**: African International Relations
  - **Logon Time**: Mar 11 – Jun 8
Think of an E-tivity that would be suitable for an on-line discussion in your course. The E-tivity should have a clear learning objective. Get together in pairs and discuss for 15 minutes. Listen carefully, giving your partner feedback. Then fill in this form. Remember, the subject and learning objective you chose should be suitable for on-line discussion.

<table>
<thead>
<tr>
<th>Name of E-tivity</th>
<th>What part of your course are you going to do this way</th>
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<tr>
<td>Purpose</td>
<td>What are the objectives?</td>
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<td>How many participants?</td>
<td>How many students and how many moderators?</td>
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<td>E-lapsed time</td>
<td>How long will the discussion go on?</td>
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<tr>
<td>E-moderator’s time</td>
<td>How much time do the E-moderators have to invest?</td>
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<tr>
<td>E-moderator’s investment</td>
<td>Depends on the purpose and the E-moderators skills. How many times a day does the E-moderator check for questions? How long before the E-moderator gives feedback?</td>
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<tr>
<td>Student actions</td>
<td>What have the students to do to attain these objectives?</td>
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<tr>
<td>Student time</td>
<td>How much time do the students have to invest?</td>
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<tr>
<td>How evaluated?</td>
<td>In what ways do you assess the students? How do you check if the objectives are attained?</td>
</tr>
</tbody>
</table>
Online Teaching Assistant – based at Tufts

Doreen Lwanga  
Email: doreen.lwanga@tufts.edu  
Office Location: online  
Office Hours: email me with questions and comments

Notes
Doreen Lwanga is a second year graduate student at The Fletcher School of Law & Diplomacy, Tufts University. Her fields of study are International Organizations and Comparative and Developmental Political Analysis with a specific focus on African affairs. Her research interests are in African International Migration, African Political Regionalism and African Natural Resources and Human Security. Prior to coming to Fletcher, Doreen worked on refugee legal protection and project administration with academic and research institutions, NGO and UN agencies in Uganda, South Africa and the United States. She has published in journals of human rights, international law, African Studies and women studies, as well as print media. Doreen is a member of the African Studies Association, International Association for the Study of Forced Migration and International Studies Association. She is a graduate of Makerere University, the Faculty of Law.

Teaching Assistant for PS178A – Regionalism in African International Relations

POSITION DESCRIPTION: Online Teaching Assistant for upper level Political Science course on regional integration in Africa. Through Blackboard, interactive website exercises link Tufts students with students in International Relations courses on Regional Integration at the University of Dar es Salaam (Tanzania) and African International Relations at Makerere University (Uganda). TA will monitor online Discussion Groups, assist with preparing and loading documents onto the site, and provide weekly reports for course instructors at the three universities.

Requirements
- Experience using Blackboard applications
- Knowledge of African Politics or Regional Organizations preferred

Please submit a CV with your application.
Salary: ____________________
Fostering International Dialogues

One of the hallmarks of the CCD project has been its attempts to experiment with interactive pedagogies that foster mutually informative international dialogues. This has not been easy. Beyond the bandwidth problem, huge differences characterize the technological infrastructure, resource endowments, as well as depth and availability of trained personnel at our respective universities. Yet by experimenting with high tech solutions for low-tech environments, we have managed to have some fruitful exchanges.

Multi-Media Campus Lecture with Online Discussions

- Former Ugandan VP Kazibwe Lectured at Tufts
- Write-up appeared in TheTufts Daily newspaper
- Tufts Daily story Linked to Course Site
- Related Documents Placed on Course Site
- Kazibwe Discussion Forum Created on Course Site
- Tufts & MAK Student Discuss Kazibwe Lecture
- New Threads Start Discussions on Related topics

Policy Chat with UNECA ES

- Documents collected during visit to UNECA
- Documents posted on Course Site
- Traditional Lectures in Classroom
- UDSM Students Submit questions for UNECA
- UNECA Executive Secretary videotaped Remarks to Students
- Answers to Questions posted on Course Site

White House Virtual Chat

- Prof Mazrui Lectured in Kampala on The Root Causes of Terrorism
- Story about the lecture printed in The Monitor Newspaper
- Online version of story linked to Makerere Course Site
- Uganda Anti-Terrorism Bill placed on Course Site
- US NSC Africa Director invited to discuss the War on Terrorism in Virtual Chat
- Stories from White House homepage & State Department homepage placed on course site
- Students debated on Discussion Board for 6 weeks
- 45 minute Virtual Chat with NSC Africa Director
- Transcript of Chat is now a Document on the Course Site
Former Ugandan VP Kazibwe Lectured at Tufts

Tufts Daily story Linked to Blackboard Site

Related Documents Placed on Course Site

Kazibwe Discussion Forum Created on Course Site

Tufts & MAK Student Discuss Kazibwe Lecture

... and related topics
PS345 – Regional Integration Course Documents

UDSM Students and Dr. Nyirabu Prepare for UNECA Virtual Policy Chat

UNECA Documents
This folder contains materials produced or distributed by the United Nations Economic Commission for Africa

Biographical Sketch of UNECA Executive Secretary KY Amoako
Click to read bio (46080 Bytes)
An online Policy Chat will be held with Executive Secretary Amoako on 27th May 2003. The Chat will be framed by a Debate on African Regional Integration. Students will have an opportunity to propose questions and engage in informed dialogue about critical issues affecting the future of the African continent.

Annual Report on Regional Integration in Africa, 2002 - Overview
Click to read document (99054 Bytes)
This is the first major attempt to establish empirical criteria for measuring the contribution of the Regional Economic Communities toward African integration.

Regional Integration and the Challenges Posed by Globalization
Click to read (154384 Bytes)

Sub-Regional Development Centres
Click to read (338574 Bytes)
UNECA has 5 Subregional Development Centres (SRDC)

The five centres are:
Central African Subregional Development Centre (CA-SRDC)
East African Subregional Development Centre (EA-SRDC)
North African Subregional Development Centre (NA-SRDC)
Southern African Subregional Development Centre (SA-SRDC)
West African Subregional Development Centre (WA-SRDC)

KY Amoako - Video Message to Chat Participants
Virtual_Clip.mov (10995230 Bytes)
The White House Virtual Chat

Theme: The War against Terrorism and Its Implications for U.S. Africa Policy

Dr. Jendayi Frazer, Special Advisor to President George W. Bush and Senior Director for Africa Affairs on the National Security Council, greets online chat participants in a pre-recorded videotaped message.

This fast-paced Virtual Chat required intense concentration.

Lab Tech Vincent Lubega projects Frazer’s video onto the white board.

After the video was screened, students chatted with Frazer in real-time on their PC monitors. The text of the Virtual Chat was projected onto the white board. This enabled guests to follow the dialogue.

Dr. Murindwa-Rutanga, PS Dept. Head & Dr. T. Mulyampiti of Women’s Studies observed.

Prof. Robinson explains the procedures.

Exhausted! International Relations instructor Dr. C. Bwana and ICT specialist, E. Gamukama, stand by as students logoff.

Systems Administrator Johnson Mwebaze coordinated the tech preparations.

Troubleshooting: Who hit the mute button on the video’s sound track?

Elated! Next morning, Vice Chancellor P.J.M. Ssebuwufu enjoys a briefing on the White House chat.

The students logon to the web site.
Problems Encountered/ Lessons Learned

The CCD methodology formulated at the launch of this initiative has evolved in response to problems encountered and lessons learned. Some of the problems were predictable and compounded by large classes – to wit, limited computer access for the East African students, the logistics of organizing training for students who lacked basic computer literacy and keyboarding skills, and the pressure of additional demands placed on the time of over-burdened instructors. Other problems were not anticipated – e.g., the technical constraints of limited bandwidth, the need for Tufts instructors to receive support from the university’s academic technology staff, the disruptive impact of student and staff strikes as well as university shutdowns, and the difficulty of synchronizing international dialogues between a university in the North that treats all its operations as time-sensitive and partner institutions in the South, where the calendar is subject to frequent slippage.

Little attention is paid to the paucity of material or professional incentives for instructors in the social sciences and the humanities to implement technology enhanced teaching and learning. Training workshops tend to be one shot deals, may involve participants who are selected using criteria other than interest in the subject, and pay a stipend for attendance – but for not implementation. Moreover, in today’s rapidly changing high-tech environment, computer specialists are easily bored when dealing with off-the-shelf software packages. Always eager to try something new, they often seem oblivious to the challenges of providing basic computer literacy, on an ongoing basis, to university students and their instructors.

Inasmuch as this project was conceived as a capacity-building intervention to strengthen universities in Africa, most surprising has been its impact on the educational experience of the participating students at Tufts. Tufts University prides itself on providing education for global citizenship. Yet our students seldom have an opportunity to engage with Africa through intellectual give-and-take. The excitement engendered by this experience is evident in comments posted on the Discussion Board. One example gives a flavor of the sense of discovery:

Forum: International Women's Day Lecture by Dr. Speciosa Wandira Kazibwe
Date: 04-12-2005 13:36
Author: Bardot, Chelsea  <Chelsea.Bardot@tufts.edu>
Subject: Re: The Role of Women Leaders as Role Models

First, thank you so much to the students in Uganda and Tanzania for sharing your perspective on these issues! I am excited to learn from all of you over the next few weeks!

Obviously I don't know as much about Dr. Kazibwe and the circumstances surrounding her divorce as others in this discussion, but I have a question...

Wasn't part of Kazibwe's hesitance in revealing the domestic abuse because she did know the implications of divorce under Catholicism? I was under the impression that she knew that there would be serious consequences to her divorce and abuse allegations, and that was, in fact, part of the reason that she went public - to encourage other women to stand up for themselves despite societal repercussions.
**Toward a Sustainable Future**

Computer assisted learning offers immense potential for improving the quality of higher education in Africa. But as the curriculum specialist John Olson reminds us, “…research and critical commentary are needed to ensure that the significant issues become part of the conversation.”  

Thus if the goal is to sustain beneficial initiatives after donor funding runs out, there is a need to think seriously about how to create some basic pillars of support:

**A Business Plan**

- Each university should draw up a business plan that takes realistic account of the costs and projects revenue streams to cover not only maintenance and replacement of computers and related equipment, but also motivational incentives for the instructors.

**ICT Infrastructure**

- For a good part of the day, the university should be capable of providing sufficient bandwidth for students and instructors to access the Internet, and to use interactive applications with relative ease.

- It is critical to establish a working relationship between instructors involved with computer assisted learning and the university’s ICT librarians.

- Universities should devise ways to provide dedicated technical support and training for the students and instructors involved in e-learning courses.

**Co-ordination**

- North-South-South collaborations need a paid project coordinator on the ground at each partner institution.

- An online Teaching Assistant greases the wheels, monitors activity on the course site, and relieves the instructors of a lot of routine, time-consuming interactions. If this position is located at a university in the North, its cost may be subsumed into the participating department’s teaching budget – which is what happened at Tufts.

- Periodic workshops enable the distant partners to come together in a face-to-face setting to discuss collaborative strategies, do literature reviews, learn new software applications, and receive training in e-pedagogy.

**Research and Assessment**

- A research component designed to gather longitudinal data for learning assessments is value added; it contributes to the development of new knowledge about computer assisted learning.

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Ultimately, we want to know how best to forge North-South-South partnerships that converge around a mutually shared vision. In this regard, an assessment made by the late Professor Andrew Kiondo, former Head of the Department of Political Science at the University of Dar es Salaam, at the end of our first year’s experience with CCD is worth quoting:

“[T]he innovativeness of the CCD project lies in the positive use of information technology to be able to bring together students and staff from Northern and Southern Universities to an interactive learning environment. This is [all the] more important because elsewhere, ICT and globalization have been known to marginalize rather than benefit the South!”

To be sure, creating international dialogues across two digital divides is a lofty goal. But under certain conditions, … it works.

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