IDRC-CRDI Project No. 102259

Distance Learning Technologies:

deploying Canadian and Southern
technology engines
to build an Asian research network

Consultant's Report (3/3):

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Project Activity:

Overview of PAN-supported DLT projects
Bhutan (6 - 19/December/2003);

Indonesia, Philippines, Vietnam, and Mongolia,
(26/February - 26/March/2004); and

Hong Kong, Thailand, Laos, Cambodia, India, and Pakistan
(23/April – 19/May/2004)

[*Pakistan segment by Maria Ng*]

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A) SUMMARY

Between December/03 and May/04, the consultant (JB) has visited 10 Asian countries on behalf of the IDRC's Pan Asia Network (PAN) initiative: Bhutan, Cambodia, Hong Kong, India, Indonesia, Laos, Mongolia; Philippines, Thailand, and Vietnam. In addition, the PAN Regional Senior Program Specialist, Maria Ng, has visited Pakistan. These visits were designed to obtain an overview of the strengths and problems of PAN-supported projects in the distance learning technology (DLT) area, and of the potential for future projects. The first two itineraries (December/03 – March/04) focused on the sites of current and completed PAN projects; and the third (April – May/04) examined the potential of other sites for future project funding. This report discusses the 63 meetings conducted during the consultancy, and makes recommendations for a collaborative approach to DLT projects by teams within the growing PAN network.

B) THE CONSULTANCY

The IDRC's PAN Prospectus (2001-05) focuses on the deployment of technologies to benefit disadvantaged rural Asian communities. As a central aspect of this initiative, PAN has funded seven projects involving installation, testing, and usage of distance education technologies (DLT). Four of these projects are completed or nearing completion; one is mid-way in its schedule; and the remaining two projects are in their start-up phases. In addition, PAN has identified other Asian teams that could be appropriate recipients of future DLT project funding. The current report builds on two previous reports by the consultant (2003-04), and completes his summary of PAN's existing DLT projects and prospective project teams. The report is designed to advise an integrated approach to future DLT projects in the PAN region.

In December/03, the Consultant (JB) visited Bhutan with the PAN Regional Senior Program Specialist, Maria Ng (MN), to make a preliminary assessment of the recently funded PAN project at the National Institute of Education (NIE) in Samtse, and to meet with the Ministries of Information & Communications, and Education in Thimphu. They were joined in Thimphu by Dr. Sarmad Hussain (SH), coordinator of the PAN Localization Project, the most recent IDRC model for project networking and research in the region. This provided JB with an opportunity to observe the project development process developed by Dr. Hussain for the PAN localization network, with a view to adapting it subsequently for the proposed DLT network. During the visit, JB and MN also planned an approach to the overall assessment of a) PAN's other DLT projects in the region, and b) whether future networking and research projects might capitalize on the lessons and outcomes of the existing projects. It was decided that Bhutan would be the first of a dozen countries visited for this purpose.

In February-March/04, JB visited the next 4 countries in this series: Indonesia, the Philippines, Vietnam, and Mongolia. These are the sites of PAN's remaining DLT projects, and of centres of related activity. The outcomes of these visits are discussed in the *current report*. JB was joined in the Indonesian meetings by MN.

The final set of visits (April - May/2004) has examined the potential of other Asian DLT centres of activity, not previously supported by PAN funding, with respect to future project collaborations. The final tour has covered an further 6 countries, in this order: Hong Kong; Thailand; Laos (visit 1/2); Cambodia (where JB was joined by MN); Laos (visit 2/2); India; and.Pakistan (visited by MN alone, following an accident suffered by JB in India). A planned visit to Nepal was indefinitely postponed owing to current violence in the country. In August 2004, JB will visit the Commonwealth of Learning (COL) headquarters in Vancouver, to identify broader, global platforms to which PAN might strategically link its Asia regional network; and he will add a report of this visit to the current report at that time. The overall result of the combined site visits will be an assessment of existing and potential projects in 11 Asian nations. The current report includes the following <u>deliverables</u>:

- assessments of 7 current and completed projects (in Bhutan, Indonesia, Philippines/1, Philippines/2, Mongolia/1, Mongolia/2, and Vietnam);
- an account of DLT usage in the 11 nations visited;
- recommendations concerning possible support facilities for future DLT projects (e.g. the ICT4D Collaboratory, and the World Bank's GDLN tele-conferencing facilities); and
- recommendations for the DLT networking proposal that is expected to be submitted by PAN to IDRC no later than September/04.

By late Summer 2004, JB will discuss the general conclusions of the consultancy in a manuscript for submission to PAN for publication.

B) PAN-SUPPORTED DLT PROJECTS

Between 1998 and 2003, PAN has funded seven DLT projects. They are listed here in order of IDRC project number.

1) **Philippines/1** (Los Banos): Application of Distance Learning Technologies to Human Capital Development in National Agricultural Research Systems **(**Project No. 003820);

2) **Mongolia/1** (Ulaanbaatar): Introducing Internet-based Distance Education in Mongolia (Project No. 004458);

3) **Indonesia** (Jakarta): ICT-supported Distance Education in Indonesia: an effort to enhance student learning (Project No. 100570);

4) **Bhutan** (Samtse): ICT-supported Distance Teacher Education in Bhutan (Project No. 101214);

5) **Mongolia/2** (Ulaanbaatar): ICTs for Health Services in Rural Mongolia (Project No. 101226);

6) **Vietnam** (Bac Ninh): ICT-supported Distance Education: aquaculture training for farmers (Project No. 101554);

7) **Philippines/2** (Makarti City): Technology-supported Distance Non-formal Training and Education in Water, Sanitation and Hygiene (*new project*).

In the second itinerary (February - March/04), JB visited the 4 countries not visited in his consultancy so far: i.e. Indonesia, the Philippines, Vietnam, and Mongolia. This series of visits completed his inspections of all 7 of the above projects. At the outset of his discussions with the individuals and project teams visited, he stressed that his role on PAN's behalf was:

- to assess the strengths of the existing projects, in order to identify ways in which DLT experts and teams in the region might assist in the development of future regional collaborative research;

- to assess the weaknesses and problems of the existing projects, in order to identify ways in which they might be alleviated by future research and training projects;

- to identify areas of overlap between projects, in order to avoid duplication of effort in future projects; and

- to provide PAN with an objective, external impression of these factors for its future reference.

JB emphasized in these discussions his complete lack of decision-making authority with respect to PAN project planning and funding.

1) Project No. 003820	1998-2001	International Rice Research Institute (IRRI), Los Baños, The Philippines
Application of Distance Learning Technologies to Human Capital Development in National Agricultural Research Systems		
Site visit by JB: 9/March/04		Grant recipients: Dr. Mark Bell and team

The IRRI employs 20,000 rice researchers, serving a potential 100 million farmers. The Los Baños campus is the Institute's international head office, with 770 Centre staff, including scholars and researchers. JB met with the following IRRI team members:

- Dr. Mark Bell (Head, IPMO & Training Centre, with a specialized interest in rural extension work);
- Ms. Gina Zarsadias (Production supervisor, and leader of the 1998-2001 PAN project);
- Dr. Albert Atkinson (Director, Rice Knowledge Bank; specialized skills in education, training, and web development for all IRRI's international branches); and
- Mr. David Shires (Project design & management specialist). Mr. Shires uses DLT in international training and capacity-building activities (e.g. in Laos, where he teaches field workers how to generate information for knowledge banks).

The PAN project initiated the Institute's work in online education, and generated a series of multimedia and online projects which have since been developed via joint funding. Early uses of audio/video tape delivery at the Institute have been replaced by CD-ROM production (e.g. English for Agriculture), and by the online Rice Knowledge Bank (RKB), developed single-handedly by instructional designer Dr. Albert Atkinson. The RKB combines the contributions of *de facto* experts on every rice topic, and serves as a basis for the Institute's formal courses around the world. An early finding of the Institute's online work has been that users go online to find specific information. For this reason, the RKB has been developed on a 'granular' model, featuring highly specific fact sheets downloadable by a simple file transfer protocol (FTP) method. Dr. Atkinson is treating these fact sheets as 'learning objects' (LO), and is currently developing an LO metadata framework for the RKB. This will help to enhance the RKB's international accessibility. The Institute does not use proprietary software in its online work, favouring instead open source software (OSS), frameworks and databases. It has recently conducted trials in synchronous online conferencing. In addition to its rice content, the RKB includes 'how to' information on wide-ranging aspects of DLT usage, with relevance to in many subject areas.

The Institute's particular DLT strength is thus as a single-source publisher of public and scientific information, employing internationally credible source specialists and editors, and using traditional and online delivery methods. Ultimately this approach may be used for IRRI certification, but its focus to this point has mainly been on non-formal training. Dr. Mark Bell, head of the Institute's training division, stresses the importance of retaining traditional media in the dissemination process, in order to serve rural communities. Training specialist Mr. Shires emphasizes the importance of respecting local cultures' timeframes and priorities in the development of DLT-related projects. The training team is looking for collaborative possibilities, and is open to partnerships in which it could assist in the development of other knowledge banks. For example, the Institute is currently talking to the World Health Organization about the possibility of broadening the range of its RKB topics in order to serve 'rice communities' more generally (e.g. on health and rural issues).

2) Project No. 004458	2000-2004 (extended to 2/Dec/04)	English for Special Purposes Institute (ESPI), International House, Ulaanbaatar, Mongolia (and stakeholder groups)
Introducing Internet-based Distance Education in Mongolia		
Site visit by JB: 16/March/04		Grant recipients: Ms. Narantsetseg Baljin, Ms. Shagdaryn Saranchimeg (and stakeholder groups)

JB's visit to this project took place two weeks after the tragic death of the project manager, Ms. Narantsetseg Baljin. He visited Ms. Baljin's sister and brother, co-directors of the family's data company, Infocon, which has played a central role in the project. However, this was a very awkward time for interviewing the team about the project's achievements. JB's main source of information, therefore, was Ms. Shagdaryn Saranchimeg, who has been less active than Ms. Baljin in the project overall. JB's briefing about the project's outcomes was less detailed as a result. [PAN has since extended the project to 2/December/2004, to facilitate its completion following Ms. Baljin's death.]

The project has evidently generated a good level of awareness of DE and online methods in a wide range of Mongolian organizations, including the following project stakeholder groups:

- The English for Special Purposes Institute (ESPI), Ulaanbaatar: English language training;
- InfoCon Ltd.: a leading source of DLT programming and training services in Mongolia;
- Datacom Ltd.: Mongolia's leading data communication service provider;
- The Mongolia Women NGO Coalition; and
- The Mongolian Foundation for Open Society (Soros Foundation): Civic Group.

JB met with the ESPI and InfoCon teams. InfoCon gave JB a demonstration of the comprehensive online database of formal and non-formal educational materials that the company has produced for the stakeholders in both of PAN's Mongolian projects (http://www.elearning.mn). JB saw other aspects of Infocon's work during his visits to the HSUM project in Ulaanbaatar and Dornogobi (*see item #5*)

The ESPI's project achievements include an early application of the IDRC's *EVE* software for language modelling. An efficient interface for the software has been created, though the project leader, Ms Shagdaryn Saranchimeg (SS), laments the slow connection speeds that reduce the accessibility of *EVE* and other project materials in the country. Now that the PAN project is nearing completion, its leased Internet connection has been lost and a new one is crucially needed for the project's sustained work.

During the project's final phase, SS has developed numerous ideas for sustaining its work via collaborative funding. She is in curriculum development discussions with the National University of Mongolia (NUM), which is interested in developing online education and will recognize ESPI accreditation towards its degrees. The collaboration will involve courseware development (MA degrees in British and American Studies; Mongolian Studies; MSc in Computing). A legal agreement is being created permitting the use of NUM's name and logo in the ESPI's work. In addition, an online gender issues course is being developed with the Women's Coalition (60-80% of all Mongolian students are women). Collaboration is being considered between PAN's two Mongolian projects (SS and the VPA of HSUM were school friends and hope to collaborate), though no formal plans are prepared as yet).

The Soros Foundation has played an important role in the ESPI project's work, and consulted in the definition of the PAN project. The official PAN project document included a component relating to Soros' priority for legal issues. SS feels that the PAN and Soros would be natural partners in further Mongolian projects, for (SS suggests) PAN's DLT concerns would fit into Soros' co-funding and globalization priorities. [As MN points out, however, Soros did not deliver on its verbal indication of interest in the joint funding of the project, and eventuially dropped out of it.]

The Canadian Teachers' Federation has funded English-language textbooks for secondary schools, and SS suggests that it might be interested in extending its work into multimedia and DLT areas generally. She also has good relationships with the UNDP, Asian Development Bank, and the Canada Fund, and suggests that PAN could visit Christopher Johnstone, Canadian Consul in Ulaanbaatar (or his successor, soon to be appointed). The Consul has been supportive in efforts to obtain Canadian funding, though was ultimately thwarted by the priorities of the Canadian Embassy, Beijing. [In fact, MN visited Mr. Johnstone in October/99, and indentified that he cannot assist in PAN project funding (*see MN's update at the end of this section*.).

The ESPI is evidently an excellent language training service, holding constant classes. In another meeting (*see item #5*), the President of the Health Sciences University of Mongolia (HSUM) suggested that his faculty members could be trained by English language instructors from Canada. The ESPI staff could clearly provide this training perfectly well. They are already providing media-based training for 40 teachers at the National University of Mongolia (NUM), and for other groups including rural doctors and vets. A collaborative project might be funded in which ESPI staff would train HSUM and NUM faculty using online methods. Support for the project could be provided by NUM, which has a small media studio used in the development of multimedia materials. Conferencing support for collaborative projects could be provided by the conferencing centre of the Global Development Learning Network (GDLN) at Ulaanbaatar's World Bank headquarters (*see the discussion of the GDLN facilities, item #51*). SS indicated that a local expert, Ms. Balgaa (formerly of Mongolian Press Institute), could organize and facilitate conferencing sessions. Otherwise, there is little educational media support in the country, apart from that of Mongolian TV.

[Update/1 (*from MN travel report, 21/October/99*): I dropped in at the Consulate to meet with Johnstone to find out what programme he is pursuing in Mongolia and to brief him of PAN activities in Mongolia. Johnstone's dollar resources for activities in Mongolia come from a CAD 200,000 per year Canada Fund pot. A Committee of officials in the Canadian Embassy in Beijing approves the Mongolian projects. According to Johnstone, this is actually a rubber-stamping Committee and that the actual decision-taking is between himself and the Ambassador in Beijing. The Canadian Consulate's projects in Mongolia are of about 10,000 CAD each and they are mostly social community building grassroots projects outside Ulaanbaatar like: helping a village to rebuild a collapsed bridge, rehabilitating a rural school, sponsoring a Canadian circus to train rural youths, restocking vegetable seeds, etc.

I demonstrated the Enhanced Vocalization Engine (EVE) to Johnstone, and discussed with him my EVE strategy and approach with local institutions and the Soros Foundation in Mongolia. I talked with him about PAN-Mongolia I and II and the Web Broadcasting project with him. He was of course fascinated with EVE and the prospect of using the one-way webcasting push technology for making EVE accessible to remote communities like a rural school for a low price of USD 1100 (USD 1,000 for a satellite antenna dish and USD 100 for service fee to the Datacom hub). He was interested in touching base with Enkhbat about the technology. We also discussed Internet ISPs, access, facilities and pricing in Mongolia.]

[Update/2 (*announcement by Asian Development Bank, 14/July/04*): The Japan Fund for Information & Communication Technology has given a USD 1 million ICT grant to "boost access to high-quality education for disadvantaged and remote populations in Mongolia". The *ICT for Innovating Rural Education in Mongolia* project, will "establish a model that uses ICT to bring modern education methods and content to poor rural schools and communities." The project announcement refers to classroom practices and the use of e-mail to facilitate student-to-student communication. The announcement does not specifically refer to the use of ICTs in formal distance learning activities, though the project may provide a base for future DLT initiatives.]

3) Project No. 100570	**2001-2004**	**Universitas Terbuka, Jakarta, Indonesia**
ICT-supported Distance Education in Indonesia: an effort to enhance student learning		
Site visit by JB: 2/March/04		Grant recipients: Dr. Tian Balawarti and team

In 2000, the Universitas Terbuka (UT: Open University) had 350,000 students, currently reduced to 250,000. It offers 850 courses, 100% at distance, to students in 16 countries. The PAN project has involved 160 of these courses in DLT trials, with online materials being created by 200 of the UT's 400 faculty members. The materials are delivered on UT's own server via a good, 256K connection speed. The project has also developed a range of online academic services, and student satisfaction indices for their evaluation. The project team is currently comparing the impact of online and traditional print delivery methods via qualitative and quantitative data (course completion rates, gender differences, etc.) JB met:

- Dr. Tian Belawati, UT Vice-Rector (Academic Affairs), and PAN project team leader; and
- Dr. Antonius Hardhono, project director.

Dr. Hardhono is a DLT expert with a current specialization in the selection and evaluation of learning management systems (LMS). His research and development team (N=5) includes a network administrator and two technicians. This digital media team collaborates with UT's traditional media production unit, housed in an adjacent building, and converts videotape materials into digital formats, using *Flash* software, etc. All of the project team's online materials are being developed on OSS platforms. Currently, Dr. Hardhono is comparing the *Manhattan* learning management system originally selected for the project with more recent OSS platforms including *ATutor* and *Moodle* (both JB recommendations). He concludes that *Moodle* may hold particular promise for UT's online work in view of the flexibility of its Indonesian language feature.

The project team's early research findings include the fact that 60% of UT students (predominantly male), access the online materials from their workplace; 40% access them in Internet cafès. Over 20% of students visit Internet kiosks weekly (mainly young students). The project is facing important changes, however, as Internet kiosks are threatened with closure by the Indonesian government. The team is regretfully concluding that large-scale, web-based course delivery will become impractical, and is in any case too slow to be worthwhile. Dr. Hardhono also feels that web-based discussion boards do not generate adequate commitment among students. The UT team is therefore considering the possibility of restricting its online methods to tutorial and learning support. Dr. Belawati foresees the value of assembling subject-specific materials in a learning object (LO) repository for this purpose, with an initial focus on the Basic Sciences. This represents a useful possibility for future PAN research. Dr. Belawati is an extremely up-to-date DLT expert, and as UT's Vice-Rector (Academic) she is also in a position to implement projects that will make the university an international DLT leader.

As an alternative to web-based delivery, the team is enthusiastic about the use of Short Message Systems (SMS). They are currently conducting a series of projects, not anticipated in the original PAN proposal, which is developing and delivering SMS materials to 300 of their 900 DE students. This initiative could provide PAN with a useful research basis for comparing learning gains in SMS (N=300) vs. non-SMS (N=600) cohorts. Further research possibilities include the comparison of faculty members' attitudes in these treatment conditions: e.g. the 200 using online methods vs. the 200 not doing so.
Other projects of the UT team include a collaborative project with an Afghanistan DE team, developed following discussion at PAN's 2003 meeting in Vientiane. UT will be hosting the 2005 Conference of the Asian Association of Open Universities (AAOU). Many of PAN's DLT project teams will be represented at this meeting, which could provide a good opportunity for a future PAN planning meeting.

4) Project No. 101214	**2003-2007**	**National Institute of Education (NIE), Samtse, Bhutan**
ICT-supported Distance Teacher Education in Bhutan		
Site visit by JB: 11-12/December/03		Grant recipients: Mr. Thupten Jamtsho and team

The NIE project is perhaps the most ambitious of all the PAN DLT projects. While other projects concentrate on specific aspects of DLT delivery (stakeholder awareness, materials production, etc.), this project aims to establish a comprehensive range of services and materials for DLT delivery. The 3-year project began just six months ago (July/03). A team of six DE teachers and developers is in place; and the work is moving ahead with the recent completion of preliminary data collection activities. JB met:

- Mr. Thupten Gyatsho, the NIE Director;
- Mr. Sangay Jamtsho, the PAN project leader; and
- the NIE teachers participating in the project.

When the project is completed, the team expects to have developed and implemented 16 DE courses, together with a full range of online tutorial, support, and counseling services, and broadcast and other multimedia materials. Although the project team is diligent and very committed to the project, the consultant has no doubt that the project is beyond its means, both in terms of team numbers and time availability. Since the team members are working on the project part-time, it is likely that they will find it impossible to do full justice to the project plan as initially proposed.

The possibility that the project might prove too ambitious was discussed during the site visit, and it was agreed with MN that it would be acceptable to reduce the number of output courses from 16 to 10. The NIE Director, Mr. Thupten Gyatsho, was swift to offer the project team leader increased levels of teaching remission, and two additional faculty members for the team, in order to ensure that the project will fulfil its expectations. In JB's view, however, the team simply does not comprehend the massive amount of work it has undertaken. The creation of a DLT system for 10 courses does not involve a significantly lesser amount of work than is required by 16 courses; and it is likely that the quality of specific activities will suffer unless the project's objectives are simplified during their periodic reviews. An alternative possibility may be to develop collaborative activities between the project team and other PAN DLT teams, during its 2005-07 phases.

For example, in addition to online materials, the project proposes to create a wide range of broadcast radio and TV segments. These production tasks may be beyond the project team's immediate abilities, even with the assistance of Bhutan's new national broadcasting system. On the other hand, broadcast media materials may ultimately prove to be more viable for DLT delivery in many parts of Asia than WWW-based materials – at least until speedier Internet connections become available throughout the region. The development of educational broadcasting skills in Bhutan may come to represent a valuable and distinctive contribution to PAN's future DLT work.

[Update (*from Sangay Jamtsho's Year/1 project management report, 14/July/04*): The project team proposes "that the audio and video component be left out of the pilot phase, with the option to include it when we go for full implementation". The rationale for the modification is that these broadcast media activities would be "too overwhelming" for the team at this stage, and the consultant feels that they may still be beyond the team's scope in the full implementation phase. The opportunity could be explored for collaboration between the project team and a more experienced media development team (e.g. the Molave team in the Philippines: *see item #7*). The report stresses the team's development of a national network of learning centres, in discussion with the Ministry of Education and due for implementation in October/04. Mr. Jamtsho notes that the team has realized the need for basic equipment not anticipated in the original project proposal; and he suggests some responsible cost-saving measures that may permit these extra purchases. He also reports that the CIDA's Bhutan project will be "providing subject content knowledge enrichment programmes by distance mode to inservice teachers…basically the same target group…there could be many support areas that CIDA could supplement".]

The NIE project also features an ingredient not explicit in any of the other DLT projects: the development of key performance indicators (KPI). At the time of JB's visit, the project team did not appear to understand the KPI development process clearly, and it is possible that this element - as others - was included in the original project proposal out of anxiety to conform to textbook definitions of DLT implementation, rather than on the basis of actual understanding of the most viable project elements. The NIE project's consultant is in the best position to guide the team through this process, and it is possible that KPI development will become another unique set of skills that the Bhutan team will be able to impart to other members of the proposed DLT network. KPI development is another example of a project specialization that could be developed in collaboration with one or more teams in other PAN regions.

The NIE team showed MN and JB the results of their initial data collection phase - student reactions to the Institute's existing distance-based teacher education courses. The team spoke enthusiastically of its hopes to use the SPSS statistical package in the analysis of these data. This may actually be above and beyond the project's needs, and even beyond the resources of the data themselves. The data indicate very positive, considered reactions, and inferential statistics are very unlikely to yield any greater levels of interpretation than is possible with simple descriptive statistics. In any case, as currently phrased, the questions posed in the project's baseline evaluation study do not permit detailed comparison of students' reactions before and after the introduction of the DLT support. During our visit, we discussed ways of focusing the project research on the unique benefits of DE courses, rather than on broad comparisons of DLT vs. non-DLT approaches. Ultimately, these questions should probably be left to the discretion and advice of the project consultant.

5) Project No. 101226	**2002-2004**	**Health Science University of Mongolia, Ulaanbaatar**
ICTs for Health Services in Rural Mongolia		
Site visits by JB: 17-19/March/04		Grant recipients: Prof. Ts. Lkhagvasuren and team (in Ulaanbaatar and Sains-Shand, Dornogobi)

The National Medical University of Mongolia was renamed the Health Sciences University of Mongolia (HSUM) in April 2003. It has 3,000 students, 85% of them women). JB met with:

- Professor Lkhagvasuren, the HSUM President and PAN project leader;
- Dr. Amarsaihkan (project manager);
- Ms. Oyun (project administrator);
- Mr. Bataar (Director, Sain-shand College, Dornogobi); and
- Mr. Batpurev (project programmer, InfoCon Ltd.).

The PAN project has been instrumental in developing the University's first online methodologies. These include a wide range of online reference material (at http://www.e-learning.mn), and a diagnostic database (*Doctor*) developed by the project collaborator, InfoCon (*see item #40*). The information in the *Doctor* system has been based on national medical priorities, including breast cancer and other women's issues. Otherwise, the team appears to be unaware of any of intrinsic women's issues that may affect the project. For instance, no gender-based problems have been observed in relation to computing skill. The team feels that the 85% predominance of female students over male has spared them from gender-related problems, for they regard these as arising mainly in the socialization process between female students and male. [Update: By contrast, MN points out that the Universitas Terbuka team in Jakarta, with a 50/50 male/female student split, has subsequently found significant gender differences in its PAN project data. *See section F of this report*. JB, August/04.]

The *Doctor* system has been created on an *Apache* platform, using an OSS database (MySQL). The system has a good browser-based interface, including an easy procedure for use by doctors in updating its contents. Patient data can be updated for the purposes of research, reporting, and distance-based consultation among doctors. The system can be used in conjunction with scanning devices to send X-rays, etc. from rural parts to the *Doctor* server in Ulaanbaatar. The team completed the process for transmitting scanned images in 2003. It is intended that doctors will carry portable scanners with them on their rural rounds. Currently, six doctors are registered on the system. The messaging software *Yahoo Messenger* is being used to alert them to the arrival of new data in the system. Serious problems of online connection speed are noted, however. InfoCon has developed an XML RPC to overcome these problems (Remote Procedure Protocol enabling fast stripping and refilling of messages at slow dial-up speeds). InfoCon feels that the *Doctor* system is unique in being specifically designed for these slow conditions. The team also uses the online service of 1STWAP.com to send inexpensive text messages to cell 'phones.

The project team is now anxious to sustain and expand these activities in up to 16 rural centres. In view of Mongolia's poor Internet connections, rural centres will require their own servers for these activities, allowing them to conduct the analytical aspects of their work offline. The project team hopes to become less reliant on the basic 'phone lines which follow the Mongolian train routes, replacing them with broadband/ satellite-based methods. They consider such facilities essential for their future, sustained work linking Ulaanbaatar and the 16 rural areas. The lack of Mongolian web content is also hindering the development of online education in the country, polarizing Internet users into those who have access *and* English language skills, and those who have one of these skills or neither. The project team strongly favours the use of OS software, citing Japan's move to all-OS platforms, based on the suspected security problems of closed-source, proprietary products. The InfoCon team is poised to implement portable OS solutions on behalf of all Mongolia's online projects. For example, it has prepared a Linux application in the Mongolian language, packaged on 2 bootable CDs, with data storage on USB flash drives. JB sees the problems of the Mongolian infrastructure as having stimulated an impressive range of solutions.

The project has also stimulated awareness of online methods via a wide range of seminars and training sessions, in 3 rural centres. JB was given a detailed *PowerPoint* presentation of these achievements, and on request a copy of it. The team has apparently given little thought to the evaluative undertaking the project faces, though it has a good instinctive awareness of the measures that could become useful in the project evaluation phase (e.g. the server connection logs collected by InfoCon's Mr. Batpurev). The team's medical expertise gives it a natural understanding of the ways these measures might be organized in epidemiological-type evaluation studies.

The project team arranged a two-day visit for JB to the HSUM's rural project team at Sains-shand, Dornogobi. There he met the project's rural outreach team, and its leader Mr. Baatar, director of the Sains-shand College. Sains-shand is a small town in the Gobi Desert, 600 kilometers from Ulaanbaatar. Its College has 500 students and 40 teachers. Its local hospital has as 600 beds and 163 medics. A 'cybercafe' exists even in this remote community, with 10 PCs always fully occupied. But there is a serious need for faster online connections. When fully used, the Internet café's 28K serial connections slow to an impossible crawl. A presentation was given by the local college team; and InfoCon's Mr. Batpurev demonstrated the viability of the *Doctor* system across distances, transmitting information from a Sains-shand scanner to the main server in Ulaanbaatar.

6) Project No. 101554	**2003-2005**	**Fisheries College #4, Bac Ninh, Vietnam**
ICT-supported Distance Education: aquaculture training for farmers		
Site visit by JB: 13/March/04		Grant recipients: Mr. Nguyen Van Viet, Ms. Tran Thi Tai, and team

The Fisheries College at Bac Ninh (near Hanoi) opened in 1994, with start-up funding from CIDA. It currently has 3,800 students in various provinces, including 1,400 farm workers. Sixty percent of its students are women. CD-ROM, OHP, print, audio, video, and slides have been used throughout the College's 10-year history. The PAN project has enabled the development of online materials.

The PAN project team came together on a Saturday to acquaint JB with the outcomes of the project to date. JB met with the above team members, and with two instructors currently developing online materials. Eight teachers have been developing materials for 3 months, and online materials have been created for two courses (20 students and 4 teachers in each). The Newfoundland advisors of the project have recommended *WebCT* as its online delivery platform, though at the time of JB's visit the license for this product had not as yet become available. Meanwhile, the instructors have developed their materials using downloadable web development freeware (e.g. *FrontPage* and *HotPotato*). As a result, the materials have no uniform style, and are of varying quality. On the other hand, the materials demonstrated to JB were adequate for immediate delivery to students. The project leaders could not explain how a proprietary course management system such as *WebCT* would provide additional benefits (conferencing and grading functions, etc.). They suggested that *WebCT* will be used for the conversion of existing materials, including those already created by the instructors using other software methods.

The team hopes that it will obtain funding to develop and sustain its work in remote rural areas across N. Vietnam. They hope to arrange collaborations with rural colleges, which would use the project's online materials. All rural areas have an Internet connection in community centres and Internet kiosks. One rural centre (Quang Linh) has assisted in the project to date, with a staff of 11 people including 3 technicians/ administrators. The team is currently studying the training needs of other remote communities, though more capacity will be needed if they are to do this training effort justice. The College is discussing the possibility that additional support for the training work could be provided by Nha Trang University (NTU) instructors, at the College in Bac Ninh and at Tra Vinh Community College. Future training might be provided by the Bac Ninh and rural instructors who have been trained by the current project. The team suggested that they hope to integrate traditional media materials into their online work. When asked if the rural communities' current Internet connections permit the use of online media such as streaming video, they indicated that they would not.

Of all the project sites visited in the current itinerary, this was the most difficult to assess. In response to many of JB's questions, the team was either uncomprehending or reluctant to give detail. Project reports were unavailable, though were described as being generated for submission to the Newfoundland consulting team. The initial proposal for the PAN project stressed satisfaction measures, and the use of, for example, connection logs in the project's evaluation. The project team, however, gave no indication that they understood these research commitments, or were putting plans in place to conduct them. JB asked whether any gender issues were emerging from project, and stressed the value of structuring the project's evaluation data so as to obtain gender comparisons. He received an uncomprehending response in answer to this and other research/ evaluation questions. JB emphasized the importance of establishing a research and evaluation plan no later than Year/2 of the project (2004-05).

In relation to the most appropriate software platform for the project, JB explained that it was not his place to suggest whether the current decision to obtain a proprietary licence should be changed. He did point to the rapid rise of no-cost OSS in other parts of the PAN region, however; and he suggested that it is likely that the College will fall behind in its DE initiatives if it does not fall into line with this trend in future projects. The College Director appeared to absorb these suggestions seriously.

JB's prior visit to Netn@m, the project's Internet service provider in Hanoi (*see item #52*), gave him the impression that the main parties in this project have an urgent need to compare notes about their current software needs. The Netn@m manager made it clear that his company cannot afford to support proprietary products such as *WebCT*; but the College team seemed unaware of this. It was interesting to note, however, that their instructors have been using freeware to develop their course materials, while waiting for the *WebCT* licence to be negotiated. Technically, the College could deliver these materials on their own server immediately, without further help from either Netn@m or *WebCT*. They may not have the staff to make this service reliable, of course. Otherwise, JB feels that the project could be considered to have fulfilled its course materials objectives already, without obtaining any further proprietary licensing. OSS and freeware methods have developed rapidly since the proposal for the project to use *WebCT*. If *WebCT* is necessary for some reason, it could provide the College's instructors with a useful experience in the initial phase of course delivery. The use of cost-free OSS methods might then be considered in sustaining and expanding the project.

JB doubts that the communication problems that he sensed in his discussions at the College related to language. It seems more likely that the team recognises that there is an awkard hiatus between the advice of NetN@m and that of the project's Newfoundland consultants, and was not yet equipped to discuss it.

7) (*New Project*)	**2004-2005**	**Molave Development Foundation Inc., Makati City, The Philippines**
Technology-supported Distance Non-formal Training and Education in Water, Sanitation + Hygiene		
Site visit by JB: 8/March/204		Grant recipients: Dr. Angelo Juan Ramos and team

This is the most recent PAN project, currently in its first six months. The Molave Foundation is a small NGO operating from a house in downtown Makati City. The project builds on the Foundation's earlier work in water sanitation and hygiene education (WASH), a public information project teaching urban Philippino communities via magazine, comic book and poster materials. The current PAN project is generating new, online methods of delivering this material to a wider range of audiences, urban and rural, including farm women and children. The Foundation is planning to deliver these new materials in regional tele-centres, via collaboration with the Department of Science & Technology (DST).

JB met with the following Foundation team members:

- Mrs. Ramos (the Foundation's founding Director);
- Dr. Angelo Ramos (the Foundation's Director and PAN project leader - a medical doctor);
- Mr. Jerome Trinona (specialist in media production, video editing, etc.);
- Mr. Michael Ramos (specialist in multimedia production, including CD-ROM: skilled in *FrontPage*, *Dreamweaver*, *Director X*, *Flash*, etc.); and
- Ms. Vangie Panol (administrative assistant).

Ms. Adelina Aranga is the Foundation's off-site administrative assistant and translator.

A particular strength of the current project, relative to other PAN projects, is the advanced, new media expertise of the Foundation's young production and programming staff. The Foundation's emphasis on traditional community development priorities has caused it to maintain a special emphasis on audio and video production skills. These are currently being overlooked in international distance education, despite their importance in the development of online multimedia materials. The Molave team's multimedia skills may prove of particular value in the development of materials for future PAN DLT projects. The increased size of the Foundation's target audience will also provide a good basis for descriptive, evaluative research about the impact of new media in DE contexts.

D) POTENTIAL PROJECT PARTNERS AND RELATED AGENCIES

(i.e. the above 5 countries + Cambodia, Hong Kong, India, Laos, Pakistan, and Thailand)

Bhutan

[Note: The following meetings in Bhutan complement the information provided in Section C, above, concerning Bhutan's existing PAN project.]

8) Project development session	**Ministry of Information and Communications, Thimphu**
Meeting with JB, MN, SH: 15/Dec/03	

The meeting focused on the PAN Localization Project, directed by Dr. Hussain (SH). JB observed SH in the project development process he has developed for the Project – an intensive and productive process of proposal and budget development conducted with the Ministry's project team. This approach is likely to be valuable for the development of new DLT projects (2005-07). The meeting was also attended by Mr. Nidup Dorji of Sherubtse College, Trashigang.

9) Discussion	**Ministry of Education, Thimphu**
Meeting with JB, MN, SH: 15/Dec/03	

This meeting also focused on the PAN Localization Project, directed by Dr. Hussain. It was a courtesy visit with no direct outcome for the DLT initiative.

Cambodia

10) Discussion	**Center for Advanced Study (CAS), Phnom Penh**
Meeting with MN: 4/May/04	Represented by: Dr. Hean Sokhom, President; and Roger Henke, Institutional Development Specialist

(Note: This visit was primarily for MN to explore the CAS' potential as an ICT partner rather than DLT)

The CAS is a private research centre operating from a large, old house in Phnom Penh. The Centre specializes in cultural studies approaches to analysis (e.g. ethnographic, anthropological, and linguistic). Its President, Dr. Sokhom, and its Institutional Development Specialist, UN volunteer Mr. Roger Henke, explained that the Cambodian University system is weak, and not promising for DE development. English is quite widely spoken in the country, though reading and writing, according to Mr. Henke, are poor. Research and evaluation skills, particularly of the quantitative type, are rare, and the CAS exists to meet the needs for Cambodian research studies on contract. Its current work for the Ministry of the Interior stresses governance issues, while other CAS studies are examining the handling of HIV-AIDS in the country, and the needs of Buddhist monasteries for training in research methodology. CAS has no core funding, and would clearly welcome requests to fulfil research and evaluation functions in PAN projects. The staff's knowledge of media and DLT issues, however, appears to be relatively low. Mr. Henke suggested that the Centre could be responsible of compiling a web-based database of information about ICT projects for the benefit of Cambodian social scientists. Without a more specific knowledge of media and DLT issues, however, it is unlikely that CAS could make an original contribution in this respect, or could improve on the existing, 'knowledge repositories' of, e.g. IRRI (*see item #1*), and UNESCO (*see item #62*). The meeting was helpful and courteous, and the sociological research skills of the Centre's staff could well prove useful in future PAN studies. It is difficult, however, to envisage a strong role for the CAS team in the immediate context of DLT studies.

11) Discussion	Ministry of Education, Youth & Sport, Phnom Penh
Meeting with MN: 5/May/04	Represented by: Mr. Om Sethy, Director, Department of International & ASEAN Affairs; Mr. Mam Sam Ouern, Deputy Director; and Mr. Sok Tha, Vice-Chief, Information

[The remaining two days of the Cambodian itinerary were arranged by Mr. Chea Sok Huor of the Prime Minister's Office, who accompanied JB and MN to most of the following meetings. As he has shown in managing PAN's Cambodian localization project, Mr. Huor is an excellent organizer and asset in the development of DLT initiatives.]

Mr. Chea had arranged a tour of departments within the Ministry of Education, Youth & Sport. The Ministry contains 20 sections, among which the Department of International & ASEAN Affairs is the coordinating office for DE projects in the country. The Department's Director, Mr. Om Sethy, gave an enthusiastic account of the high-technology vision for education, traced to the 1997 arrival of ICTs in Cambodia. He outlined recent ICT developments in the country, including the BBC World Trust's HIV-AIDS project, and Cambodia's role in the 4-country SchoolNet project designed to develop the online skills of teachers and students. He mentioned the ICT support provided by the Bangkok offices of UNESCO and SEAMEO (these tend to involve minor funding of, e.g., $3,000 per project, to train a small group of teachers); and he regretted that a promising telecentre in Siem Reap has recently been closed owing to political problems. As a result, educational ICT initiatives in the country are currently limited to 3 schools in Phnom Penh. Mr. Sethy is passionate about the possibilities of DE to combat illiteracy, and is keen to obtain funding to add a telecentre to his Department. His vision for the telecentre is one of dissemination, reinforcing the Department's development as the focal point for information about multimedia and DE in Cambodia, and helping to develop its new English-language web site (moegs.gov.kh). Mr. Sethy indicated that a national workshop on ICT will be held with UNESCO's assistance later in May, and he suggested that a new DE office will be added to the Department by the end of the month. This visit was in sharp contrast to the disinterested attitude of Mr. Sethy's Lao counterpart.

12) Discussion	Ministry of Education, Youth & Sport, Phnom Penh
Meeting with MN: 5/May/04	Represented by: Mr. Leang Seng Hak, Deputy Director, Teacher Training Department; and Ms. Tan Ly Huang, Asst.

Next in the Ministry tour was the Teacher Training Department, centre of its in-service training activities. These are organised at 6 regional training centres, serving 26 educational institutions and 16,000 teachers nationally. The Department's Director, Mr. Leang Seng Hak, described its wish to expand to a new building containing a DE centre. He suggested that DE in Cambodia can be traced to 1995, and to the production of correspondence materials for teacher training in the sciences and social sciences, including mathematics and language education. Currently, all of the 26 educational institutions have at least 8 computers, and three of them (in Phnom Penh, Siem Reap, and Kompong Cham) have as many as 40. In total, the 26 institutions have trained 200 teachers to date, but more equipment is needed for the training programme's expansion. So far, all PCs/Macs have been provided second-hand by S. Korean, Japanese, and Singapore donors. UNESCO provides technical and training support. The Ministry aims to have 20 computers in each of its regional offices and at 10 provincial teacher training centres; and it has a clear awareness of the educational possibilities of digitized media – each of the 26 institutions have been provided with scan converters to transfer traditional videos to digital format. The technical awareness exhibited by Mr. Sethy and his team, however, does not compare with the ingenious and innovative approaches of, for example, Infocon in Mongolia, or the Molave Foundation in the Phippines. The Ministry is currently drafting an ICT policy (this has been under development since 2001).

The two Ministry meetings so far had created the impression that Cambodia's formal educational institutions are subject to tight government controls which will make effective online DE development difficult. All of the Ministry's regional computer facilities are used for training and administrative uses exclusively. This is not to suggest that the national vision would not expand to include online educational

and community programmes, given adequate infrastructure and funding. To this point, however, only 2 the 3 model training centres have internet connections, and no online education is planned owing to the impossibility of sustaining it. Some centres still lack electricity. Text messaging is cheap (5 cents each) but not yet possible in the Khmer language. It would be premature at this stage to launch a project involving, for example, the development of online course materials. On the other hand, a project to strengthen DLT capacity and infrastructure could be timely.

13) Discussion	**National Institute of Business, Phnom Penh**
Meeting with MN: 5/May/04	Represented by: Mr. Eang Sophal, Director; Mr. Lach Socheath, Deputy Director; & Mr. Nop Sothea, Senior Manager, Liaison Unit & E-learning

The DLT picture in Cambodia's Government-linked private sector, however is more optimistic. The National Institute of Business is a government body with fee-paying students. It was founded in 1979 immediately following the Pol Pot regime. It currently has 60 teachers (2 of them full-time), and 1.800 students, primarily Ministry of Commerce and corporate employees. Three degree programmes are available: B.Comm, M.Comm, and a higher diploma. All tuition is face-to-face, and the students travel from all provinces for residency in Phnom Penh. With Japanese assistance, online 'e-learning' connections have been developed on campus. Currently, these are used for administrative purposes only, and all the JODC money has been spent.

MN and JB received an impressive demonstration from Mr. Nop Sothea, who has been motivated to teach himself about online delivery technologies, and has developed a solid pilot interactive online course, which he demonstrated to us. The course will be ready for implementation later in 2004. No students have enrolled in the course as yet, possibly owing a general lack of public DE awareness. The Institute staff informed MN and JB of plans to put all their programmes online, depending on the market response. Students would access the courses from local internet cafes. It seems that the Institute's teachers have yet to be trained to teach online. The Institute would welcome new funding for an in-house server for its new web site (http://nib.edu.kh), and to employ a technical trainer. It is possibly at an appropriate evolutionary stage for a DLT impact and awareness project, which could simultaneously address the similar needs of other formal and nonformal instutions in the country. [Update: Mr. Sothea has since left for a 2-year secondment to the Asian Institute of Technology in Bangkok. MN/JB, August/04]

14) Discussion	**International Institute of Cambodia, Phnom Penh**
Meeting with MN: 5/May/04	Represented by: Mr. Chhuon Chan Than, Director; and Dr. Malcolm Innes-Brown, Dean of Graduate School

The International Institute of Cambodia is the most dynamic of the institutions visited, from the DE point of view. It currently has 2,000 students, including local staff of the European Union. Since its inception in 1999, the Institute has used the Web in its course delivery, making it available to the students free of charge and round the clock. The initial course offerings were BAs in Business and Economics, with the rapid addition of MA programmes. The Institute's impressive publication and distribution produces IT books in the Khmer language; and students receive training in a wide range of IT applications including *Microsoft Office* and *Dreamweaver*, and in database design and management. The enterprising owner-director of the Institute, Mr. Chhuon Chan Than, gave the visitors excellent hospitality, and described his vision to generate e-business and e-trade in Cambodia, and to spread internet awareness to the general public, via online methods including video-on-demand and online video-conferencing. Mr. Than is currently seeking a license from the Ministry of Information to publish a national IT magazine; and the Institute clearly needs greater capacity to make the Director's ambitious vision possible. MN indicated to Mr. Than that, in order to seek PAN project funding for such work, the Institute should collaborate with the public sector in proposing a self-sustaining project of benefit to the rural regions. [Mr. Than would be a good PAN project partner, though his business commitments would probably not permit this. MN.]

15) Discussion	Ministry of Education, Youth & Sport, Phnom Penh
Meeting: 6/May/04	Represented by: Mr. Mak Ngoy, Deputy Director, Higher Education Department

Mr. Ngoy did not appear for this 08:30 meeting, and after 45 minutes an assistant arrived to take his place. He spoke in broad terms of Cambodia's Educational Strategy Planning document on 1) Equity and Process, 2) Quality Improvement, and 3) Institutional Development. He indicated that the Ministry is working with rural communities and NGOs in areas of ICT development; and he suggested that DE is regarded as important for the rural population of Cambodia, but that there is no national plan for this. The time available for the meeting was insufficient to obtain any details or evidence of these claims, and in the light of the impression given at other Ministry meetings, it seems unlikely that they carry much substance.

16) Discussion	Royal University of Phnom Penh (RUPP)
Meeting with MN: 6/May/04	Represented by: Dr. Neth Barom, Vice-Rector (R&D)

RUPP has 6,000 students and 300 full-time faculty. The University is clearly proud of its new MA in IT offered by the Computing Sciences Department, but has no funding for research in the field. It has no current provision for DE, though Dr. Barom appears interested in encouraging it. RUPP could be an appropriate site for trial online course development, as in PAN's current project at the Fisheries College in Vietnam.

17) Discussion	Ministry of Education, Youth & Sport, Phnom Penh
Meeting with MN: 6/May/04	Represented by: Dr. Phoeurng Sackona, Director, Institute for Technology of Cambodia (ITC) (contact provided by Dr. Umaly, AEAN Foundation)

Unlike the other institutes visited in Cambodia, the ITC is a part of the Ministry. It operates within the Agence universitaire de la Francophonie (AUF), and has been receiving French funding for core support. The ITC focuses on information technology, engineering, and commerce. Sixty-eight percent of its students are regional, and a Centre for Distance Learning is currently being proposed in conjunction with the ASEAN Foundation, the Asian Institute of Science & Technology (AIST), the Japan International Cooperation Agency (JICA), and UNESCO. The Director rapidly inferred that PAN DLT funding might be available, and reacted to the idea enthusiastically.

Hong Kong

18) Discussion	Open University of Hong Kong
Meeting: 26/April/04	Represented by: Dr. David Murphy, Acting Director, Centre for Research In Distance & Adult Learning (CRIDAL); and team

The Open University of Hong Kong (OUHK) has 22,000 students, taught by approximately 100 full-time and over 1,000 part-time staff. Its Centre for Research in Adult & Distance Learning (CRIDAL) has an unique reputation in the Asian region for its high-quality research and evaluation studies of open and distance learning. Dr. David Murphy recently took over as CRIDAL's Acting Director, when Dr. Olugbemiro Jegede, left to become Director-General of the new National Open University of Nigeria.

In addition to its Director, CRIDAL has a dozen research fellow and assistants, most of whom are employed on temporary project contracts. JB met with:

- Dr. Zhang Wei Yuan (Research Fellow: DOVILES project);
- Ms. Chen Li (Research Fellow: seconded from Beijing Normal University);
- Ms. Elaine Kwok Che Yan (Research Assistant: DOVILES project);
- Mr. Jason Chan (Research Associate); and
- 2 other research assistants.

Dr. Murphy obligingly rescheduled the group's monthly research meeting so that JB could receive a report on the Centre's current projects. These include:

- *Going Online*: an evaluation of the media and study habits relating to interactive study modules;
- *Global DE Network Project*: a preliminary study of the World Bank/COL's GDNP initiative;
- *The CERG Project*: a study of cultural factors affecting the impact of school leaver career kits (funding from HK's Competitive Earmarked Research Grant scheme);
- *The Distance & Open Virtual Learning Environment Scale (DOVILES)*: development of a questionnaire for evaluative use by teachers of online courses;
- *Web-based interactive tutoring*: development of a system to assist online course development;
- *OUHK courses in China*: evaluation of group-based courses, with emphasis on the language issues responsible for course attrition (Hong Kong vs. standard Chinese); and
- *TV and video courses at OUHK*: ongoing evaluation studies.

As these highly focused studies indicate, CRIDAL could be a valuable contributor to PAN's DLT projects. The Centre could be engaged for independent evaluations of PAN projects, and to provide project teams with training in evaluation skills. CRIDAL's DOVILES project (DOVILES, 2004) could have particular value in PAN DLT projects, providing distance educators with an useful checklist of student reactions to online courses. PAN might engage the DOVILES team to develop a more technology-oriented version of the Scale than is currently available. Data about the technologies used in online courses would allow researchers and course developers to make comparisons of student reactions *between* courses, in order to identify the effects of specific DL techniques.

The high quality of CRIDAL's previous work is evident from its publications (e.g. Jegede & Shive, 2001; Kember *et al*, 2001; Murphy, Shin & Zhang, 2002; Shin & Chan, 2004). The Acting Director expressed interest in possible CRIDAL involvement in future PAN projects, and JB *recommends* that this be strongly considered. As an active publishing team, CRIDAL and the OUHK could prove valuable in promoting PAN's DLT work in future publications. [*JB will discuss this possibility in future contacts with CRIDAL.*] It is possible that CRIDAL is currently in financial difficulty, being highly dependent on grant and contract income, and with limited stability from project to project. Educational research and evaluation units do not have a high priority in educational institutions internationally, and research funding in the Hong Kong context tends to be insubstantial. The CERG project grant, for example, is in the region of $6,000 HK only. CRIDAL's involvement in future PAN projects could not only help to protect the future of this high-quality research group; it could also be important in preserving the limited resources of educational evaluation and research skills available in the PAN region generally.

Since CRIDAL's staff members are drawn mainly from Hong Kong and mainland China, it is feasible that the PAN network may not regard them as appropriate participants in future PAN activities, especially in sensitive evaluation functions. On the other hand, the current overview identified no other Asia team with comparable evaluation skills, and it is possible that, coming from outside the main PAN network, an evaluation team from CRIDAL would be perceived as having a welcome objectivity. [Update: meeting #63: 16/August/04. With Dr. Murphy, JB subsequently visited Pro. Danny Wong, Vice-President Academic of the OUHK. Prof. Wong expressed strong interest in the principle of collaboration with the PAN project in areas of distance education research, evaluation, and training.]

India

[Indira Gandhi National Open University (IGNOU) is a power-house of Asian distance education, a 'mega-university' with 1.5 million students. In a 3-day series of meetings, the senior management and a wide range of faculty members provided JB with a detailed update of the University's current developments. This thorough schedule was arranged by Dr. Zeba Khan, Deputy Director of IGNOU's Electronic Media Production Centre. In sequence, the individual meetings had the following outcomes.]

19) Discussions	**Indira Gandhi National Open University (IGNOU), New Delhi**
Meeting: 12/May/04	Represented by: Dr. Ved Goel, Director, International Division

Dr. Goel managed an IDRC-funded student exchange programme in the 1980's and stated that he would be extremely supportive of new PAN initiatives involving the University. He asked for direct contact with IDRC, and JB gave him the contact information for Roger Finan and Maria Ng.

20) Discussion	**Indira Gandhi National Open University (IGNOU), New Delhi**
Meeting: 12/May/04	Represented by: Prof. Sohanvir Chaudhary, Director, School of Education; and Dr. Chandra Sharma, Reader in Education

The School of Education is providing training in the development and formative evaluation of a wide range of CD-ROM materials, with emphasis on teacher education at all levels. It is currently developing DE courseware for delivery on India's new Edusat satellite (to be completed in June/04). Dr. Sharma described the major educational role that Edusat will play in Nepal and Bhutan; and on learning from JB about PAN's DE project in Bhutan, he volunteered the information that IGNOU would have a particular interest in assisting in this work. Only India could provide such help, he suggested, in view of the fact that Bhutan, Nepal, and India share the same language. The two hosts described IGNOU's work in the use of educational radio for teacher education/rural development in Nepal and Bangladesh, and the University's rapid, current move into online course delivery, notably of its food and safety programmes. India has a serious need to sustain such programmes, they indicated, by placing a heavy emphasis on DE research and evaluation.

21) Discussion	**Indira Gandhi National Open University (IGNOU), New Delhi**
Meeting: 12/May/04	Represented by: Prof. Santosh Panda, Professor of Distance Education, & Coordinator of Staff Development, Staff Training & Research Institute of Distance Education

Prof. Panda described his current work in the development of online learning resources with the UK's Manchester Metropolitan University. He is skeptical about stressing online delivery to the exclusion of the traditional media, and is interested to develop guidelines for combining online with offline computer delivery. In common with many of his colleagues, Prof. Panda spoke proudly of India's 'Education for All' policy, which aims for education to be offered as a 'fundamental birthright' by 2010. All schools will be computerized, and DE will be a central element of the policy. Seven of India's 29 states are currently putting the plan into operation, involving a massive teacher training activity. Prof. Panda also

described the sophisticated new Indian system that will make this vision possible, combining satellite and undersea landline technologies to deliver web-based education and synchronous conferencing to all parts of the country. The system will provide seamless and interchangeable access to data in all media formats, at a minimal user cost of 10 Canadian cents per hour for broadband uplink access. In 2005, IGNOU may become the ISP for this system, serving 900 centres throughout the country.

Prof. Panda could be an ideal possibility for project leader of PAN's future DLT activities. He is internationally respected as the author/editor of DE textbooks and articles, and as the editor of academic journals including *Staff Educational Development International* and the *Indian Journal of Open Learning*. He is also evidently a capable manager, and was subsequently identified to JB by IGNOU's Vice-Chancellor as the most appropriate person to act as liaison between the University and PAN in any future DLT collaboration. Since JB's meeting with him, Prof. Panda has submitted an informal, unsolicited proposal to IDRC (*see Appendix V*).

22) Discussion	**Indira Gandhi National Open University (IGNOU), New Delhi**
Meeting: 12/May/04	Represented by: Dr. Shashi Bhushan, and Dr. Akshay Kumar; on behalf of IGNOU's Online Working Group

The University's Online Working Group is creating and evaluating course approaches using a range of online methods, including 'embedded' synchronous teleconferencing components. A distributed course development system is used; and the students and teachers are meticulously prepared for the new media by print-based starter kits. The Group is engaged by the Indian Government to apply its methods in the training of Indian diplomats.

23) Discussion	**Indira Gandhi National Open University (IGNOU), New Delhi**
Meeting: 13/May/04	Represented by: Prof. Pandit Pran Nath, Dean of Humanities

Prof. Pandit is a language educator with a keen interest in the development of online methods to enhance the language learning experience. His active encouragement of online methods at IGNOU is ensuring that they are adopted across a wide range of artistic and scientific disciplines

24) Invited Lecture (JB) to Faculty	**Indira Gandhi National Open University (IGNOU), New Delhi**
Meeting: 13/May/04	Hosted by: Prof. Madhulika Kaushik, Acting Director, Electronic Media Production Centre (EMPC); Dr. Zeba Khan, Deputy Director; and Dr. Devesh Kishore, Head of Educational Research & Training

The EMPC houses the extensive TV, radio, and tele-conferencing facilities on which IGNOU's DE work has depended since its inception 30 years ago. Dr. Kaushik is a business studies professor, currently acting as EMPC Director. Dr. Khan has managed the Centre's TV and conferencing facilities for many years, and became its Deputy Director 5 years ago. Dr. Kishore provides the Centre with a research balance. Together, they organized and hosted an University-wide presentation by JB on the psychology of online learning. Thirty faculty and executive members of the University attended this two-hour session, called by the EMPC with only three hours' notice. Discussion points included: the interpretation of TV audience reaction questionnaires; the use of online server log files in the analysis of teacher-student interaction; the value of mobile educational methods in rural development; and methods of combating online student plagiarism.

25) Teleconference	**Indira Gandhi National Open University (IGNOU), New Delhi**
Meeting: 13/May/04	Represented by: Prof. H.P. Dikshit, Vice-Chancellor, and IGNOU's senior executive members.

JB was an invited observer at one of the regular video-conferences chaired by the Vice-Chancellor, in order to provide IGNOU's executive with detailed communication with its regional centre directors. The conference was broadcast from the studios of the EMPC.

26) Discussion	**Indira Gandhi National Open University (IGNOU), New Delhi**
Meeting: 13/May/04	Represented by: Prof. H.P. Dikshit, Vice-Chancellor; and Prof. S.C. Garg, Pro-Vice-Chancellor

Following the videoconference, the Vice-Chancellor spent 45 minutes in being briefed by JB about PAN's DLT initiatives, and in discussing his priorities for IGNOU's development of online course delivery. Prof. Dikshit is concerned for IGNOU to assist in the development of open and distance learning in other nations, and he is working to this end as Chair of the South Asian Association for Regional Cooperation's Consortium of Open & Distance Learning (SACODL). The VC described the massive IT effort currently underway to bring India's 'Education for All' vision to fruition. This will involve IT training of 66,000 teachers over the next 2 years, and comprehensive online content development initiatives with computer language localization. Prof. Dikshit recommends collaboration between PAN and SACODL in its areas of mutual interest, and points to the existing agreements between SACODL and COL. He sees the possibility of a valuable three-way plan for ODL in Asia.

At IGNOU, the Vice-Chancellor has instructed his courseware developers to conduct constant evaluations of open source software: "Whatever becomes available, we download it". He has launched a powerful approach whereby OSS developers travel to the regions to work directly with the teachers in designing customized online platforms in the regional languages. The first State to have benefited from this approach is the under-priveleged Jharkhand. The State Government has been so positive about this mobile training process that it has presented IGNOU with a large building to facilitate further local developments. In Section E of this report, JB will recommend that the mobile training model be adopted in PAN's DLT activities.

27) Discussion	**Indira Gandhi National Open University (IGNOU), New Delhi**
Meeting: 12/May/04	Represented by: Prof. Punjab Singh, Director, Centre for Extension Education, and Professor of Agriculture

Prof. Singh became the Director of Extension Education recently, following positions as Secretary of the Indian Department of Agricultural Research & Education (DARE), and Director-General of the Indian Council of Agricultural Research (ICAR). He is concerned to generate DE agricultural programmes across India, based on careful needs assessment and evaluation projects; and he identifies this as an area for which funding has not yet been located in the otherwise well-supported Indian DE environment. Prof. Singh suggests that PAN could provide valuable support of this work, which might evaluate, for example, IGNOU's new agricultural radio channel, KISAN. IGNOU would benefit from such studies, and would in turn make its 23-country network of Asian and African agricultural expertise available for subsequent collaborations. Such an initiative could thus have Acacia Project implications.

28) Discussion	**National Institute of Open Schooling, Kailash Colony, New Delhi**

Meeting: 12/May/04	Represented by: Dr. Sushmita Mitra, Director Academic; and colleagues

The National Institute of Open Schooling (NIOS) is the largest open schooling system in the world, with 1.25 million students. JB visited the Institute for a meeting with its Director, Dr. Sushmita Mitra, and four administrative colleagues. He was accompanied by Dr. Zeba Khan of IGNOU, who has worked closely with the NIOS in previousl educational media initiatives . The NIOS has 250 staff in 7 regional centres, and a comprehensive range of course materials in all high-school disciplines. It also has a massive and highly developed student information system, and skills in its management that could be highly valuable to PAN DE developers. In turn, the NIOS could benefit from PAN support for its learning centre model, which it does not regard as sustainable in its current form. The Director is interested in developing internet café-based alternatives using webcasting and other methods.

29) Discussion	**Department of Science & Technology, Government of India, New Delhi**
Meeting: 13/May/04	Represented by: Dr. Vinay Kamble, Director, Vigyan Rail project); and Ms. Ujjwala Tirkey, Principal Scientific Officer

On the way to the airport in New Delhi, JB broke his ankle. This prevented him from visiting Pakistan, and MN attended the meetings in Lahore and Islamabad with Dr. Sarmad Hussain (*see items #42-47*). Shortly after JB's accident, his IGNOU host, Dr. Zeba Khan, handed him a cutting about a new mobile education project, Vigyan Rail. At his request, she arranged for JB to meet the project's director during his extended stay in New Delhi.

During his visits to Laos, Mongolia, and Vietnam, JB had noted the urgent concern of project teams to extend their work into the rural regions of their countries. The prospects of doing this via a comprehensive network of learning centres, however, seemed remote. JB had repeatedly thought to himself, "If only these people had an educational train…" His work with the Ukrainian Government in 1995-96 had involved the delivery of a national media campaign about HIV-AIDS via a specially equipped educational train, and he is convinced about the power, penetration, and cost-effectiveness of this mobile approach. Equipping and running a train for educational purposes, however, is complex and costly, and JB has seen no evidence of such an undertaking in the past ten years.

In 2003, however, the Vigyan Prasar Society (vigyan = knowledge; prasar = spreading) joined with the Government of India's Department of Science & Technology to create a mobile exhibition of India's science and technology achievements. With the support of 18 other national ministries and councils, they have built 'Vigyan Rail', an educational train that has just completed its first national tour (December/03 - April/04). The train's exhibits have been received with great acclaim by over 100,000 visitors in rural communities throughout the country. The project director, Dr. Vinay Kamble, speaks of his hope that the Vigyan Rail train will become a permanent educational facility, spreading knowledge to India's billion inhabitants indefinitely. He hopes to generate a constantly updated programme of exhibits and activities. To carry educational exhibits into the mountainous regions of the country, he plans to create a fleet of educational vans, painted like railway carriages.

In Section E of this report, JB will *recommend* ways in which the Vigyan Rail project could be harnessed in the development of DLT initiatives in India and in the PAN network at large

Indonesia

[Note: The following meetings in Jakarta complement the information provided in Section C, above, concerning Indonesia's existing PAN project.]

30) Discussion	**ASEAN Foundation, ICT4D Collaboratory, Jakarta**
Meeting with JB: 3/March/04	Represented by: Dr. Ruben Umaly, Director; and Mr. Eddy Bahfen and team

The ASEAN Foundation exists to help the peoples of Southeast Asia "to realize their full potential and capacity to contribute to…economic development and the alleviation of poverty". The Foundation has a particular concern for the reduction of the 'digital divide', and stresses collaborative initiatives in these areas. It sponsors training workshops, and showcases new social development approaches. Its office in Jakarta has recently become the host of the ICT4D (ICT for Development) Collaboratory web server, which contains the *Redhat*, *Apache* and *Solaris* platforms, and a comprehensive range of server softwares (including SSH, PHP, *MySQL*, sendmail, *SquirrelMail*, and *PostFix*).
JB met with the Collaboratory team:

- Mr. Eddy Brahfen (Manager);
- Mr. Dominic Soh (ICT consultant);
- Mr. Purnadi Kertonugroho (System Engineer)
- Mr. Niko Atmadja (Webmaster); and
- Ms. Nayu (Program Assistant)

The team is actively seeking collaboration with donor agencies for project activities by which the Collaboratory could serve DLT projects, providing infrastructure support for them. The Collaboratory may therefore represent an ideal basis for the development of online DLT projects in the region. The team expressed an interest in installing a range of OS softwares for future use by DLT project teams, and JB recommended that they consider:

a) the *DeskNow* collaborative project software;
b) the open source content management system, *Plone*;
c) the *ATutor* learning management system;
d) the range of synchronous freeware tools provided by *GroupBoard*; and
e) the customizable messaging tools, *Sonork*.

Mr. Soh undertook to test the viability of these softwares on the Collaboratory by May/04, and JB undertook to pilot test these with him from Canada during that process.

31) Discussion (at ASEAN seminar)	**Universitas Islaam Negri (UIN), Jakarta**
Meeting with JB: 1/March/04	Represented by: Dr. Syopiansyah Jaya Putra, Dean of Science & Technology

Dean Putra is a useful possible contact in relation to online science and technology education. He expressed specific concern for the development and evaluation of OSS course management systems. His University might provide a useful test platform for DLT methods and materials.

32) Discussion	**Centre of Techno-Policy Research for Regional Competitive-ness, Development & Capacity-building, Assessment & Application of Technology Agency (AATA),**

	Jakarta
Meeting with JB: 3/March/04	Represented by: Dr. Derry Pantjadarma, Head of Prog. D'ment

The AATA is an Indonesian government agency dedicated to promoting the use of communications technology in government sectors and industry. Its Head of Programme Development, Dr. Pantjadarma, is expert in the evaluation of software and hardware for DLT usage. He provided JB with useful Indonesian contacts and information sources.

Laos

33) Discussion	**Science, Technology & Environment Agency, Vientiane**
Meeting with MN: 1/May/04	Represented by: Mr. Phonpasit Phissamay and Mr. Valaxay Dalaloy

Under the supervision of Mr. Phissamay, the Science, Technology & Environment Agency (STEA) has provided online connectivity and computer language localization for PAN's early DLT work in the Lao PDR. To this point, 3 of Laos' 18 provinces have telecentres with internet connections, and STEA estimates that all provinces will have such facilities by December/04. To date, these centres are primarily for the benefit of governmental agencies; and the only community learning centre with online connectivity is at Luang Prabang. One connection has been created to the National University of Laos in Vientiane, which is interested in developing campus-based online resources for its administrators. Numerous commercial internet service providers and internet cafes are in operation in Vientiane and Luang Prabang, though their connections tend to be slow, routed circuitously through the USA. STEA estimatesd that a local internet exchange will be in operation by June/04.

The telecentres' main activity is the provision of training in the use of standard word-processing and spreadsheet applications for government officers and, interestingly, novices from the local Buddhist monasteries. Our STEA hosts suggest that the lack of general impetus for the development of online distance education in Lao may be due to the fact that face-to-face education in the country is regarded as a privileged luxury, and that remote connections between teachers and students are seen as an undesirable substitute for it. However, Mr. Phissamay demonstrated that he is firmly committed to overcoming this attitude. To this end, he organised with only five days' notice an all-day workshop presented by JB for an audience of two dozen local educators and community workers (*see next item*).

34) Workshop (JB) for 24 STEA guests	**Science, Technology & Environment Agency, Vientiane**
Meeting: 7/May/04	Organised by: Mr. Phonpasit Phissamay

JB returned to Vientiane for this workshop, following his visit to Phnom Penh. STEA had invited approximately 40 local educators and community workers to the meeting, and, despite the short notice of only five days, two dozen of them attended. The morning session was designed as a presention about DE and DLT by the consultant; and the afternoon session was devoted, at STEA's instigation, to the discussion of the following three topics, each by a separate subgroup: 1) the creation of DE content; 2) DE infrastructure issues; and 3) DE training and awareness. The fact that most of the workshop participants stayed for the whole day suggests that Lao educators have a genuine interest in the development of DE options in their country. Their detailed understanding of the opportunities provided

by DE, and of the problems of launching it in Laos, is evident in the workshop's minutes, as dictated by the three sub-groups to Mr. Phissamay (Appendix IV).

Despite the positive experience of the workshop, the consultant left Vientiane with a pessimistic view of the short-term prospects of DLT projects in Laos. His visits to STEA (*items #33-34*), the National University of Laos (*item #37*), and the Ministry of Education (*item #38*) yielded little evidence of widespread support for DLT projects; and the only organization he visited which has obvious DLT interest and expertise was the Lao-American College (*item #39*). Within STEA, Mr. Phissamay apparently has a genuine vision for ICT and DLT in the country, though the Agency as a whole appears to be rather dilatory and disorganized. It seems unlikely that Mr. Phissamay has substantial support for his ICT work from his STEA colleagues. This conclusion is supported by views candidly expressed by Mr. Somphone (*see next item*).

35) Discussion	**Participatory Development Training Centre (PADETC), Luang Prabang**
Meetings: 3/May/04 and 10/May/04	Represented by: Mr. Sombath Somphone, Director

At Mr. Somphone's suggestion, JB had two informal dinner meeting with him in Vientiane, in order to learn about the community learning centre directed by SS in Luang Prabang. MN was present at the first of these meetings. As indicated above, this is the only community learning centre currently open to the Lao public. SS gave a very positive account of the role of an online learning centre in the community; in fact, he has the most instinctive and sophisticated vision in this respect *that JB encountered in his whole 10-country tour*. The importance of a well-developed programme of community initiatives; the need to generate computer literacy and awareness via nonformal activities; the importance of building formal distance education of the basis of nonformal activities - all of these insights are clearly evident in SS's thinking, and are completely shared by JB. Both have practical experience of the reasons that educational media projects fail unless the correct community foundations are laid for them are laid; and SS's experience could be very valuable in the development of DLT initiatives in Laos and beyond.

However, JB came away from his discussions with SS with the same pessimistic impression as he gained from most of his other Lao meetings. SS described the vital role his learning centre has been playing within the northern community of Luang Prabang, and the ways in which, according to him, local government officials have caused the centre to flounder. SS is clearly a maverick who speaks his mind only too plainly, not only to foreign visitors but also to his Lao colleagues. It is likely that his work has limited local support for this very reason, and his account of the manner in which he is actively opposed might seem paranoid if it were not for the long-standing history of such problems in community development (James, 1996a, b). The discussion gave JB little evidence that DLT project funding would be a good investment in Laos currently. On the other hand, SS is clearly resourceful, and indicated various ways in which project funding can be channeled to Lao organizations without local or national government interference. In dropping JB off at his hotel following their first meeting, for example, SS introduced him to Mr. Somphone Phanousith of the National Science Council (NSC: *see next item*).

36) Discussion	**National Science Council of Laos (NSC), Vientiane**
Meetings: 3/May/04	Represented by: Mr. Somphone Phanousith, Permanent Secretary

Mr. Phanousith was formerly the Director of STEA's Research Department. During their second meeting, SS suggested to JB that Mr. Phanousith would have the interest and influence to channel DLT funding into Laos without its being subject to local and national government controls.

Since JB's visit to Laos, he and MN have discussed whether Laos' DLT activities have reached the level at which research activities might be funded, or whether they still require further basic development. As Secretary of the NSC, Mr. Phanousith would presumably give a high priority to helping to coordinate

funding into the country for research purposes. JB feels that certain developments in Laos, notably at the Lao-American College (LAC: see *item #39*), could permit an immediate and novel research emphasis on the development of mobile methods in DLT training, using the type of approach reported by the Indian Vigyan Rail team (see *item #29*). The LAC, for example, has a network of regional learning centres and new PC equipment to use in them. A PAN research project could be conceived to facilitate and record the impact of mobile DLT training methodologies within that network.

37) Discussion	**National University of Laos (NUOL) , Vientiane**
Meeting: 10/May/04	Represented by: Assoc. Prof. Tuyen Dongvan, Vice-President, Planning & International Relations

At his STEA workshop (*see item #34*), JB had met Mr. Bounthong Vongxaya, an IT specialist at the National University of Laos (NUOL). Mr. Vongxaya demonstrates a genuine enthusiasm and expertise with regard to DLT and its possibilities in Laos. Vice-President Dongvan, on the other hand, appears not to share his interest. The VP denies that NUOL has adequate DLT skills, and apparently regards Mr. Vongxaya as a mere technician whose skills have little or no value within the institution. Whereas Mr. Vongxaya speaks knowledgeably about the need for NUOL to develop online courseware using a wide range of technologies, his VP's seems aware of relatively narrow possibilities only - e.g. an evaluation study of online audio-conferencing techniques currently being conducted by NUOL's School of Education with funding from the Swedish International Development Cooperation Agency (SIDA). Given this lack of internal integration at NUOL, and in light of the University's low level of online connectivity (*see item #33*), the immediate prospect for worthwhile DLT project work at NUOL seems remote. This is unfortunate for Mr. Vongxaya has since written to JB and MN expressing his interest in preparing a PAN proposal for funding to create online course materials (Appendix IV).

38) Discussion	**Ministry of Education, Vientiane**
Meeting: 10/May/04	Represented by: Mr. Lytou Bouapao, Director-General, Department of Planning & International Cooperation

This meeting with the Ministry of Education's International Cooperation Director was as dispiriting as the meeting with the NUOL Vice-President (*see previous item*). Mr. Bouapao was openly disparaging about the DLT skills of Lao educators, and about the lack of internet facilities in Laos. (Ironically, the two Vientiane hotels at which JB has stayed had the best internet connections of all the hotels in his 10-country tour.) Mr. Bouapao also decried the lack of available DE materials in the Lao language. He seemed unaware of PAN's language localization work in Laos, and expressed no interest when JB mentioned it to him.) In a heated monologue, he argued that internationally funded projects are never sustainable, and are therefore not worth the effort. It appeared that the Ministry would not be enthusiastic or supportive if DLT project funding were offered to it.

39) Discussion	**Lao-American College (LAC) , Vientiane**
Meeting: 10/May/04	Represented by: Ms. Virginia Van Ostrand, Director; and Mr. Chantala Phaboonheuang, Head of Business Faculty

During his STEA workshop, JB had met the LAC's Head of Business, Mr. Chantala Phaboonheuang – who also hold the position of Operation Manager of Academic Affairs at the College. Mr. Phaboonheuang is a young academic, educated in Canada, and JB was impressed by his dynamism, enthusiasm for DE, and potential project leadership qualities. JB was therefore pleased to accept his invitation to visit the College. On arrival there, he was struck by the firm way in which Mr. Phaboonheuang dismissed the two STEA 'minders', a secretary and a driver who had accompanied JB into his previous two meetings that day. As a result, the discussion in the current meeting was unusually open and frank. The College's Director, Ms. Virginia Van Ostrand spoke of the LAC's active interest in

DLT research and development, and of its recent major awards from Microsoft and Cisco. She also stressed the importance of avoiding awkward government controls by using funding channels involving non-Lao accounting procedures. In this she echoed Mr. Somphone's insistence on the need for such channels (*see item #35*). Microsoft has recently donated a set of laptops to the College, and Ms. Van Ostrand hopes to find funding to permit these to be used in regional learning centre initiatives. She has since written to JB expressing her interest in DE and concern to access "supportive assistance for quality educational opportunities" (Appendix IV).

If the problems of Lao government control over funding could be minimized, JB would *recommend* the College as a worthy DLT project site. For example, the College might become a base for PAN-funded research into mobile DLT training methods (*see item #29*).

Mongolia

[Note: The following meetings in Mongolia complement the information provided in Section C, above, concerning Mongolia's existing PAN projects.]

40) Discussion	**InfoCon Ltd., Ulaanbaatar**
Meeting with JB: 19/March/04	Represented by: Mr. Baljin and team

InfoCon Ltd. is the communications company which has created the online materials for both of PAN's Mongolian DLT projects. JB met with the InfoCon management and support teams, still grieving after the unexpected death two weeks earlier of the company's founder and director, Ms. Narantsetseg Baljin:

- Mr. Baljin (Nara's brother, interim company director);
- Ms. Baljin (Nara's sister, providing administrative support);
- Mr. Batpurev (programmer, database designer, OSS specialist; and
- Ms. Munkhzul (project materials programmer).

The Baljin family and the other stakeholders in the two Mongolian projects are anxious to find ways of perpetuating the vision that Nara Baljin developed for Mongolian distance education: e.g. completing her writings, and sustaining the projects, in her name. JB gave a personal promise to assist this endeavour.

Details of Infocon's presentation to JB are given in the report of the PAN's two Mongolian projects (*see items #2 and #5*).

[Update: Following Nara Baljin's death, Mr. Batpurev has taken over her position as Infocon's managing director. MN/JB, August/04).

41) Discussion	**Health Sciences University of Mongolia, Ulaanbaatar**
Meeting with JB: 19/March/04	Represented by: Dr. Narantuyas, VP (Research)

Following JB's visits to the HSUM project sites in Ulaanbaatar and Dornogobi (*see item #5*), the University's Vice-President reiterated its President's concern for HSUM to participate in international online medical education projects, particularly those with a research purpose.

Pakistan

42) Discussion (conducted by MN)	Higher Education Commission (HEC), Islamabad
Meeting with SH: 17/May/04 (from IDRC Trip Report #0402)	Represented by: Dr. S. Sohail H. Naqvi, Member, Human Resource D'ment & Strategic Planning; and M. Jalil Ahmed, Director-General, Strategic Vision and Quality Assurance

Dr. Naqvi is an education policy maker. In Pakistan, 'members' in government agencies are next in rank after the Minister and their role is advise the Minister on policy decisions. The Higher Education Commission is an independent agency that reports to the Prime Minister, funds public sector educational projects, and defines and supports higher education policy. Dr. Naqvi explained that Pakistan has one of the lowest access rates to higher education, so they are grappling with issues of Access, Quality, and Relevance. They have to try and make a dent in the problem by climbing from the current yearly 200,000 student enrolment to 2 million and they have to do this very quickly. Distance Education has to play this key role. They have two DE/DLT models - the Allahad Iqbal Open University (AIOU) and the Virtual University (VU). Dr. Naqvi was straightforward: DE/DLT has the highest level of support in Pakistan - they are NOT facing a resource crunch. Rather, they are looking for assistance in policy and programme: "We have the money, but we have programme development choices - we need policy development ability and capacity for making the right choices".
Dr. Naqvi stated his interest as understanding how to e-enable AIOU so that its delivery quality is improved. AIOU already has half a million students - its challenge is how to increase that to millions. How is that to happen? They need to jumpstart by taking advantage of learning from the successes of other countries. This is the kind of help Pakistan urgently needs, it is the approach, the models and scalable models they want in interacting with regional institutions. They also need to learn how to manage DE/DLT projects, he said. Regional sharing of curriculum and content will certainly contribute to solving the problem and ICT unquestionably has to be a key for opening the door. (Noticing the programmes of IDRC, Dr. Naqvi also sees a linkage between natural resource problems and higher education, including manpower training).

I came away with a deep impression of Dr. Naqvi. I think he is very 'cool' - balanced, unprejudiced, unbiased. Someone who can see AIOU and VU as two virtues or two models rather than two competitors has to be wise. Definitely, he is someone we want to work with, and of course there must be room in our regional DLT project framework for educational policy. (MN, 6/June/04)

43) Discussion (conducted by MN)	Allama Iqbal Open University (AIOU), Islamabad
Meeting with SH: 17/May/04 (from MN's IDRC Trip Report #0402)	Represented by: Dr. Nazir Ahmed Sangi

Dr. Nazir Ahmed Sangi wears a few hats: 1) Chairman, Dept of Computer Science, responsible for e-learning initiative of AIOU; 2) Project Director, IT Services Networking Project; and 3) Dean, Faculty of Science. With him was his colleague, Prof. Najeeb A. Khan, Dean, Faculties of Social Sciences and Humanities and Chairman, Dept of Business Administration. We also met with AIOU's Vice Chancellor, Dr. S. Altaf Hussain, who hosted us to lunch.

The Allama Iqbal Open University (AIOU), Islamabad, is known to be the second longest established open university in the world, after the OU-UK. Prof. Nazir Ahmed Sangi was aware that I was going to visit their rival institution, the Virtual University in Lahore, and my sense told me that having been given the Pan-Localization model (one core partner institution in one country) by Sarmad Hussain, he was rather anxious that I not exclude AIOU from core participation in our regional DLT project. So he was rather pressing in the South Asian way, of getting instant reaction from me on whatever he was showing me. In the typical inscrutable SEAsian way, I kept assuring everybody that we will try and be inclusive rather than exclusive!

AIOU is receiving some Govt (Higher Education Commission) funding for piloting e-course

development. They are starting with two courses - a one-year programme in e-learning and a 10-course diploma in computer science. They are using *NetMeeting* and multimedia tools like video streaming and developing their own student interaction interface platforms. The Diploma programme will be ready for delivery next semester, as an online programme only. AIOU is launching an online admission system next semester, as well as a student complaint tracking system. AIOU is also collaborating with COMSATS in a 'French Online' distance learning programme. (This was launched in March 2003.) The Diploma is awarded by AIOU and the course is delivered by COMSATS.

We walked around the AIOU campus a little bit in the relentless 45 degrees centigrade heat to see the AIOU TV facility and the typically humongous publishing problems - millions of blank cassette tapes for duplicating and mailing! Prof. Nazir is an active person, and I imagine he will participate and contribute actively in any forum. Of course we have to be inclusive. Institutions like AIOU have very heavy mandates and a lot to share and learn from and with their counterparts in Asia, and even though the Virtual University is in the same country, they (AIOU and VU) are probably going to network for the first time through us and our PAN DLT platform.

IDRC's programme officer's role in facilitating people to come together was strikingly brought home to me by Rahat ullah Baig of Gilgit. He said to me, "From your perspective, you think you have not accomplished much" (I was feeling sorry that Jon Baggaley because of his accident in New Delhi was not there to give them more meaty DET substance), "but to us, this" (he was referring to the visits to VU and NUCES) "is heaven-sent and we have gained so much, the extent of which you can never ever imagine possible." (…) (MN, 6/June/04)

44) Discussion (conducted by MN)	**Ministry of Information Technology, Islamabad**
Meeting with SH: 17/May/04 (from IDRC Trip Report #0402)	Represented by: Dr. Aamir Matin, Managing Director, Pakistan Software Export Board; and Mr. Jamshed Masood, Director (Telecom), IT & Telecommunications Division

The Pakistan Software Export Board deals with the IT industry and IT parks and the quality issues of their IT industry. However, Dr. Aamir Matin does not see the mandate of the Pakistan Software Export Board as limited to developing local company capacity and enhancing the IT industry in the country, but as a programme that enhances e-government as well as e-services to people and communities. He stressed that he was also looking at the digital divide, human rights, local content, legal issues and at community-based user interface, community networks and training. Some of this extended scope of work must surely be outside the Software Board's jurisdiction, and obviously, it stems from Aamir Matin's past interests as a UNDP staff officer in Pakistan. We exchanged some notes about people who know in the UNDP arena.

He mentioned that they were initiating a biotechnology study and he is interested in the kind of biotechnology that can generate jobs. In the midst of our talking, he asked Sarmad Hussain to help look for a regional consultant and Sarmad who was at our Vientiane Pan All Partners Conference, mentioned Dr. Tan Tin Wee of NUS. I heard Aamir asking Sarmad to contact Tan Tin Wee. Dr. Aamir Matin and Dr. Sarmad Hussain are members of an ICT small grants award committee (modelled on the PAN ICT RnD - Sarmad discussed it with me, when they were starting up) that decides on which national research project proposals are worthy of funding support. This small grants competition is funded and convened by the Ministry of Information Technology. If we should be looking for representation from an LDC E&DE policymaker, Aamir Matin is a good resource to consider - serious & intellectual. On the way out of the building, we dropped by Jamshed Masood's office. Jamshed is the Pakistan chapter writer of our Digital Review (DirAP). Jamshed was excited about a couple of licences he was issuing to external operators, a sign of the telecoms liberalization that is surely albeit slowly taking place in Pakistan. Each licence brings in a great deal of money for Pakistan. (MN, 6/June/04)

45) Discussion (conducted by MN)	Commission on Science & Technology for Sustainable Development in the South (COMSATS), Islamabad
Meeting with SH: 17/May/04	Represented by: Mr. Tajammul Hussain, Deputy Director; and Mr. S.M.I. Qureshi, Finance

A brief visit was made to COMSATS at Tajammul's insistence. We really had to rush that in order to be on time to catch our flight back to Lahore after the hectic one-day trip to Islamabad, cramped with appointments.

COMSATS is a PAN recipient institution of several years'standing. This was my first visit. We talked abit about COMSAT's current e-focuses. Apart from their ISP services, they are into content focuses on distance education (eg French Online), biotechnology and renewable energy. Tajammul and Qureshi met up with us again in Lahore the next day and they visited the Virtual University and CRULP/NUCES in Lahore together with the Gilgit and Baltistan teams and us (myself and Sarmad). At the Virtual University, he was as surprised as we were to see the large campus of the COMSATS University of Information Technology. (MN, 6/June/04)

46) Discussion (conducted by MN)	Virtual University of Pakistan, Lahore
Meeting with SH: 18/May/04 (from IDRC Trip Report #0402)	Represented by: Dr. Naveed A. Malik, Rector

Also present:

- Tajammul Hussain and S.M.I. Qureshi (Commission on Science & Technology for Sustainable Development in the South - COMSATS HQ, Islamabad);
- Rahat ullah Baig, Manager ICT4D, and Amin Baig, Karakorum Area Development Organization (KADO, Gilgit)
- Hans Frey, Baltistan Health & Education Foundation (BHEF), Islamabad

The Virtual University of Pakistan (VU) is on the campus of the COMSATS University of Information Technology (a f2f university) in Lahore and rents space from it. Some would question why the former political order of Pakistan would set up VU as another formal education open university, offering a BS program to compete with the much older Allama Iqbal Open University (AIOU). (VU was set up by the Ministry of Science and Technology, while AIOU was established by the Ministry of Education). But I think the rationale for the new VU is understandable - that a new progressive institution without the 30-40 years of AIOU baggage could deploy modern technology more rapidly and efficiently to solve two major problems that Pakistan faces: the need to increase the current annual graduate output of 130,000 and the need to address the drastic shortage of quality faculty resources. Pakistan's population is 140 million, higher education is expensive and only available in major cities which have limited enrolment capacity. Only 2.5% of college-eligible youth are actually in college.

VU targets at highly qualified, established and reputable faculty in Pakistan with solid credentials: (1) to drive VU's content development process and (2) to develop content locally. VU takes faculty from and in turn also provide quality courses to the top-rate conventional universities in the country. Courses are delivered via television (VU is free to air digital satellite broadcast). Scheduled TV lectures (with lecture notes/handouts provided before hand) are in TV, CD and VHS formats, used in the VU 'virtual centres' and by home-based students. Tutorials are also conducted over the two digital free-to-air TV channels. Internet and teacher-student-student interactivity and student support are via the Internet, with conventional threaded discussion boards and graded instructor-led discussions. VU currently uses LMS - Learning Management Systems - a commercial software developed in Singapore that includes among the usual range of tools for such software, a whiteboard feature. Among other things, VU appreciates LMS in allowing VU management to track and aggregate student performance and other characteristics by province, village and by subject and topic, etc., etc., in time series. However, VU is starting to develop other features that it needs which are not available in LMS, and may eventually drop LMS.

VU's examination system is formal and proctored, with exam centres notified nation-wide, invigilators appointed by VU, encrypted files distributed on exam day and student sheets received daily. VU's students are mostly at its virtual centres in Pakistan, but it also has Pakistani students in 15 countries. VU's charter allows it to set up campuses outside Pakistan. Student demographics are: 50: 50 large cities and small towns and 12 % female students. VU's current enrolment is 4,500 (2,000 active) in its 150+ centres (virtual campuses) in 65 cities. How is this proliferation possible given that VU started operations only in March 2002? VU has a unique model of allowing anybody to bid to operate a VU virtual centre. VU charges each student a fee of USD 25 (800 PKR) per month, and each aspiring virtual centre has to negotiate with VU for a cut of this fee. If the province is poor and if the virtual centre would forego the fee-share of the students, so would the VU. The Govt puts in a large subsidy for content development, but VU students are not subsidised. VU is looking to setting up financial aid schemes for students.
To the project personnel from our PAN project # 101054 (ICT for rural development in mountainous and remote areas of Northern Pakistan), the prospect of getting a VU virtual centre into Gilgit to make tertiary education opportunities available to students in a spot of Northern Pakistan, was most exciting, and certainly the high point of their Gilgit-Lahore trip. While a VU virtual centre would need a number of students to be viable, the Project which will have connectivity infrastructure through our project grant will have telecenter-like facilities that can fuel the operation of the VU virtual center and provide another set of programming activity to their "ICT-supported distance education" objective. So it all seems to fit, as Dr. Naveed advised, that for viability purposes, a VU virtual centre should not be set up for this purpose alone but should have many other business purposes.

At this time, I have the request from Ottawa to accelerate with project development of the IDRC DLT-Asia networked initiative and to bring in the final project summary for approval by end November 2004 at the latest. At this time, I am concerned about which Asian institution(s?) is(are?) to ultimately become the regional/sub-regional coordinating grant recipient institution(s) of the IDRC DLT-Asia networked project .

Dr. Naveed, the Rector of VU, obtained his PhD in Physics from MIT. He has been in the Pakistani education arena all the while. I find him progressive and strategic. I gauge he is a thinker and I believe we can look to him to contribute strongly to our project development and project ideas. Unlike what I found at AIOU, Naveed had no angst about figuring in what we are setting out to do in the region and that was pleasant. His organizational structure seems liberal and he seems to have the autonomy that would make his institution attractive as a potential grant recipient institution. That our other big regional project, Pan-Localization, is coordinated by NUCES in Lahore, does make me hesitant about VU, in the sense that we'd then have two such coordinators in Lahore. Not that there is anything inherently inappropriate about this, but we have to make sure that there is no other equally superior alternative. There was no time nor privacy to probe further with Naveed who had a string of visitors lined up outside his office after us. Neither did I want to discuss our project development plans much further given that Jon Baggaley and I did not have the chance to touch base after we separated in Phnom Penh (moreover, while in Lahore, the project was still scheduled for funding in FY 2005). Then, of course there is the regional conference that we are planning which should permit a degree of natural self-selection. I am thinking of Siem Reap (or Phnom Penh) for the venue, and will be getting Cheak Sok Huor (PAN-Localization) to manage the logistical support.

The other 'coordinating hub' possibilities are Universitas Terbuka in Indonesia, Sukhothai Thammathirat Open University (STOU) in Thailand, Centre of Research in Distance and Adult Learning, (CRIDAL) at OUHK, Indira Gandhi National Open University (IGNOU) in India, all not without some weaknesses and problems from the perspective of our own IDRC experience and practice with selecting institutions of excellence to lead in the region.

Rohinton was at ASRO after my trip and I took the opportunity to seek his opinion about the slight queasiness I was feeling about possibly ending up with selecting yet another institution in Lahore (VU) to lead PAN's second large regional initiative - the first was PAN-Localization. Of course at this time, I

have yet to see Jon Baggaley's report on his institutional and Project Leader assessment of those he met at IGNOU-India, but as I said the VU Director strikes me as befitting the ideal - a calibre that is progressive, intellectual in substance, strategic, systematic, liberal, autonomous. (We need another Dr. Sarmad Hussain and we need a home for the regional network). Rohinton's advice was to go for the very best in terms of project leadership and institutional excellence. He advised that a locational concentration of institutions of excellence should be regarded as a strength, not a point of weakness.

At this time, following email discussion with Richard Fuchs, please note that we should start to use the term, "DLT" instead of "DET", as "DLT" is the term that is preferred within IDRC, and it is the term that is going into our corporate documents. (MN, 6/June/04)

47) Discussion (conducted by MN)	**National University of Computer & Emerging Sciences (NUCES), Lahore**
Meeting: 18/May/04	Represented by: Dr. Sarmad Hussain, Director, Center for Research in Urdu Language Processing (CRULP)

The Pan Localization project is proceeding as planned, and Sarmad Hussain has set up a Yahoo Messenger discussion board which is hotting up quickly and members are very, very actively helping one another to find technical solutions. Apart from picking up on one or two administrative details, there were no problems. The real purpose of the CRULP/NUCES visit was to introduce the Gilgit and Baltistan project teams to the local language technology research work that is ongoing at CRULP/NUCES (apart from getting them to that important visit to the Virtual University). The research work at CRULP/NUCES will impact on the content generation and build-up at the community level and it was important for the Gilgit and Baltistan teams to see the connection that needs to be made. From the Virtual University visit, I am sure from their keenness, that we will soon see negotiations between Dr. Naveed and Rahat ullah/ Amin Baig on the Virtual University's virtual centre franchise.

Sarmad Hussain is an excellent networker. He shows leadership in getting our Pakistani project partners to network and to know each other extremely well. Sarmad arranged all our appointments in Islamabad and NUCES in Islamabad and Lahore provided logistical support, gratis, all the way. CRULP-NUCES is an excellent partner institution in this respect. If we have this kind of leadership in one PAN recipient institution in each country where we operate, we can easily achieve national- level PAN networking, so that peering is both across PAN domain clusters and across PAN country families. (MN, 6/June/04)

Philippines

[Note: The following meetings in the Philippines complement the information provided in Section C, above, concerning the Philippines' existing PAN projects.]

48) Discussion	**University of the Philippines Open University, Los Baños**
Meeting with JB: 9/March/03	Represented by: Dr. Lex Librero, Chancellor, UPOU (contact provided by Dr. Umaly, ASEAN Foundation)

The Open University has over 1,000 students, all in graduate programmes including one at the doctoral level. It has 16 full-time and over 600 part-time teachers in 23 regional learning centres. The Philippines has 1,000 universities, mostly private, and many of them vying to offer distance education (DE). Dr.

Librero stresses that this is a major reason for the current low reputation of DE in the country. The UPOU is anxious to rectify this situation, by becoming a cost-recovery producer of high-quality multimedia materials for DE usage. UPOU's central campus at Los Baños has a small multimedia department with a staff of four, and large expansion plans for 2005. The Chancellor is interested in developing collaborative projects.

UPOU's multimedia specialists are already skilled in one particular DLT 'niche' area: i.e. the development of innovative Short Message Service (SMS) modules in collaboration with a local telephone company. The initiative is producing limited supplies of SMS hardware in multiple subject areas. According to a feature on BBC World (25/March/04), the Philippines is currently the "text messaging capital of the world", with 22 million cell 'phone users sending on average seven SMS messages per day, at a cost of under a cent each. Telephone companies in the Philippines are rushing to impose higher rates; though the UPOU may well be in a position to play a leading future role in this area of DLT development.

Thailand

49) Discussion	**Sukhothai Thammathirat Open University, Bangkok**
Meeting with MN: 28/April/04	Represented by: Dr. Patamaporn Yenbamrung, Acting Vice-President (Academic)

The Sukhothai Thammathirat Open University (STOU) is one of the world's DE 'mega-universities', with 200,000 students. STOU employs over 200 full-time teaching staff, 1,000 part-time teachers, and numerous subject-matter experts engaged on contract to write textbook and other course materials. The University has 10 regional centres covering all of Thailand's provinces; and it has been used a wide range of print, audio and video materials in its courses over twenty years. STOU has a highly developed system for the management and distribution of teaching resources. For example, in support of its multimedia approach, it has 200 traditional educational media staff, 12 online media specialists, and a multimedia library containing 2,600 audio and 380 video tapes. During the past two years, internet-based methods have been added to some STOU courses, with course materials, schedules, and student grades all handled online via STOU-created software. At 500 baht per course (20,000 baht for a full degree), fees are extremely viable for Thai students.

A testbed for STOU's online course methodology has been provided by the Greater Mekong Subregion Virtual University (GMSVU) project, serving the Thai, Yunnan, and CMLV provinces bordering on the Mekong. This project combines traditional media with innovative satellite-based course delivery. At present, it covers a relatively narrow range of subject areas (e.g. tourism and Mekong Studies), but it has received funding from UNESCO and the EU for courseware development in other disciplines.

STOU's online course delivery has been based on a home-grown learning management system (LMS) developed over seven years. In recent months, however, the University has decided to adopt a series of open-source LMS products instead, in view of their greater flexibility and currency. This is significant evidence for the value of an OSS approach in PAN DLT projects.

JB and MN met with members of the University's senior management group, including:

- Prof. Pratya Vesarach (President);
- Mr. Siracha Charoenpanij (Vice-President, Planning);
- Ms. Sunee Silphiphat (Associate Professor, School of Economics); and
- Ms. Sukanya Phromphon (Head, Foreign Relations).

They provided JB and MN with an interesting public relations-type account of STOU's DLT initiatives, and attentive hospitality. They would welcome IDRC support for formative evaluations of their online graduate courses, and they identified online security as a specific research concern. JB would have

appreciated the opportunity to discuss the University's DLT strengths with teachers and courseware developers, but this was not available. Overall, the visit gave good evidence of STOU's advanced status as a DLT developer, although it was not possible to judge the depth and scope of its DLT work . There is no doubt, however, that STOU would be a willing and valuable collaborator in future PAN DLT projects. The University has close ties with Universitas Terbuka in Jakarta, which is also a strong candidate for a role as regional leader of future PAN DLT collaborative activities.

Vietnam

[Note: The following meetings in Vietnam complement the information provided in Section C, above, concerning Vietnam's existing PAN project.]

50) Discussion	**Ho Chi Minh City Open University**
Meeting with JB: 11/March/04	Represented by: Mr. Hua Van Duc, Vice Director, Centre for Distance Educ; Mr. Ho Huu Tri, Directeur-Adjoint, CDE; and Ms. Le Thi Thanh Thu, Deputy Director, Office of Foreign Cooperation (Postgraduate)

The HCM City Open University OU was founded in '93, and has 14,000 students. Its Centre for Distance Education (CDE) is the University's DE services unit, with a staff of 16, serving 5,000 DE students via print and cassette materials. Although only 5% of the Vietnam population currently has private Internet access, the University is poised to move into online delivery, and has a particular interest in creating online business administration courses. The Deputy Director of Foreign Cooperation seems anxious for the University to collaborate with PAN in future projects, especially in relation to online student registration and DE support services. A secondary topic of interest would be the development of methods for analysing institutional statistics. The University would be ready to propose projects in these areas at the earliest opportunity.

51) Discussion	**Vietnam Development Information Centre, Hanoi**
Meeting with JB: 12/March/04	Represented by: Andrew Scyner, Manager

The VDIC is one of 60 information centres comprising the World Bank's Global Development Learning Network (GDLN). The network has 6 Asian centres. Using inexpensive 'Voice over Internet Protocol' (VoIP) methods, it offers audio/ video-conferencing facilities that could be valuable in future PAN projects. The VDIC's manager, Andrew Scyner, provided JB with useful DE contacts in Vietnam, including the Royal Melbourne University's DE project in Hanoi. He showed JB the conferencing suite, which serves approx. 16-20 sessions monthly, sometimes with minimal notice. The VDIC would be interested in collaborative work, and can provide cost estimates for conferencing sessions serving all ASEAN areas.

52) Discussion	**Netn@m Ltd., Hanoi**
Meeting with JB: 12/March/04	Represented by: Mr. Tran Ba Thai, Director, and team

Netn@m Ltd. is the private Internet Service Provider which services the Fisheries College project at Bac Ninh (*see item #6*). A University spin-off company, it has a particular focus on the development of delivery platforms for online education. JB met with the company's project support team:

- Mr. Tran ba Thai (Manager);
- Mr. Nhuyen viet Hung (Programmer); and
- Mr. Vu the Binh (Systems Analyst).

JB introduced himself to the team by explaining that the IDRC had requested him to find out about Netn@m's attitude to the relative merits of proprietary and OS course management platforms. Mr. Tran was emphatic in saying that his company cannot afford the expensive infrastructure (license fees and staffing) that is required to support proprietary platforms such as *WebCT* (currently preferred by the Fisheries College project). His team described their alternative solution, a course management system developed in the Vietnamese language, using the OS software *PostNuke.* The company is now prepared to support other Vietnam projects, particularly in the North (it has commercial competitors in the South, mainly in HoChiMinh City). Netn@m has strong Government ties in the Lao Ministry of Science & Technology for supporting Lao projects (Vientiane is a 40-minute flight from Hanoi). Mr. Tran ba Thai will provide JB with other Hanoi (e.g. OU) and Lao contacts on request.

53) Discussion	**Ministry of Education & Training, Hanoi**
Meeting with JB: 12/March/04	Represented by: Mr. Nguyen Ngoc Hung, Dep. Dir. Of Int'l Cooperation; and Ms. Nguyen Thi Hanh (Officer, International Cooperation)

The original purpose of this visit was to meet with the Vice-Minister, Dr. Tran van Nhung. On two successive visits, he was unavailable. His place was taken on the second occasion by the above members of the Ministry's Office of International Cooperation. The Deputy Director described the Ministry's wish to assure quality control in DE, in view of the public's concern for the low quality of DE in Vietnam. He expressed an interest in research and evaluation projects that would lead to this goal. He noted that Alberta's Minister of Education, Lyle Oberg, visited the Hanoi Ministry in Summer 2003 to develop a Vietnam/Alberta collaborative agreement. This may facilitate future PAN/Vietnam DLT collaborations at the Ministerial level.

54) Discussion (at ASEAN seminar)	**Ministry of Science & Technology, Hanoi**
Meeting with JB: 1/March/04	Represented by: Mr. Quynh, Information & Technology Office

Mr. Quynh is a useful source of contacts within the Government of Vietnam, and expressed his willingness to give assistance on request.

E) MEETINGS WITH OTHER DEPARTMENTS AND AGENCIES

55) Seminar	***Digital Review* editorial meeting, Jakarta**
Attended by JB + MN: 28-29/Feb/04	

This seminar brought together some of the representatives of all PAN's DLT projects, and provided JB with a valuable introduction to them and their work. He visited the Indonesia and Mongolia team members later in the current itinerary, including the InfoCon team led in Ulaanbaatar by Ms. Narantsetseg Baljin. The Digital Review seminar was PAN's last meeting with Ms. Baljin, whose tragic death occurred one week later (*see item #2*).

56) Discussion (at *DR* Seminar)	**Network of UNESCO Chairs in Communications, Orbicom**
Meeting with JB + MN: 29/Feb/04	Represented by: Dr. Claude-Yves Charron, Secretary-General

Together with La Francophonie, Orbicom is working on the *Digital Review for Francophonie Africa*. MN invited Dr. Charron to the Jakarta seminar to explore Orbicom's possible interest in DE. They discussed the possibility of coordination with PAN initiatives in Cambodia, Laos, Thailand, and Vietnam. As a result MN included these countries in the consultant's April-May/04 itinerary, with a view to identifying possible DLT initiatives there. Dr. Charron is familiar with Japanese funding sources for DE projects in that region.

57) Discussion (at *DR* Seminar)	**Agence de la Francophonie, Bordeau**
Meeting with JB + MN: 29/Feb/04	Represented by: Mr. Pietro Sicuro, Director

[*See previous item*]. At the same meeting, MN also discussed collaboration possibilities with Mr. Sicuro, representing La Francophonie. He expressed interest, though has not worked in DLT to date. His mandate relates specifically to ICT initiatives).

58) Discussion (at *DR* Seminar)	**Ministry of Education, Research & Technology, Iran**
Meeting with JB: 29/Feb/04	Represented by: Prof. Masoud Shafiee, Deputy Minister

Professor Shafiee attended the 'Digital Review' editorial meeting, and, on behalf of the Iranian government, expressed interest in collaborating with IDRC in future DLT projects. He separately suggested the possibility of inviting IDRC staff and JB to Iran for discussions during the coming year.

59) Seminar	**ASEAN Foundation/ Orbicom, Jakarta: *Strategic Role of ICTs in the AFTA Era***
Attended by JB + MN: 1/March/04	JB presentation: The Role and Implementation of E-learning

This one-day meeting assembled 100 Jakarta business people and educators interested in the application of e-learning and e-commerce in their work. JB was keynote speaker for the seminar's DE theme, and emphasized ways in which online learning can emulate the best features of traditional, face-to-face education. The seminar provided a useful venue for JB to meet ASEAN region DE specialists.

60) Discussion (at ASEAN seminar)	**S. Asian Ministers of Education Organisation (SEAMEO), Jakarta**
Meeting with JB + MN: 2/March/04	Represented by: Dr. Anung Haryono, Dep. Dir., HRD & PR

SEAMEO's purpose is "to promote cooperation in education, science and culture in the Southeast Asian region". Its major focus appears to be on organising training workshops, and Dr. Haryono did not express any particular interest on SEAMEO's behalf, relating to collaborative DLT activities.

61) Discussion	**SE Asia Ministers of Education Organisation (SEAMEO), Regional English Language Center (RELC), Singapore**
Meeting with JB + MN: 22/March/04	Represented by: Mr. Thomas Khng (Dep. Director), and Dr. Joe Foley, Editor: RELC Journal

As in the other SEAMEO meeting *(see previous item*), these two specialists at the Regional English Language Center (RELC) in Singapore indicated that their main focus is on training activities, rather than on DLT methods *per se*. RELC teaches languages to international professionals, and has produced at least one CD-ROM languages package (300 copies for a batch sale). This initiative, supervised by Dr. Foley, appears to have involved more effort than was considered worthwhile for future initiatives.

62) Discussion	**UNESCO Asia and Pacific Regional Bureau for Education, Bangkok**
Meeting with MN: 29/April/04	Represented by: Mr. Cédric Wachholtz, Programme Specialist (Information & ICT in Education); and Ms. Buenafe Abdon, Assistant Project Officer.

UNESCO's Bangkok office is the headquarters of the Organisation's Asia and Pacific Regional Bureau for Education (APRBE), a small unit focused on publication and dissemination in the Information & Communication Technology (ICT) area The 'focal point' for information about UNESCO's DLT-related work in the region is its ICT specialist, Mr. Cédric Wachholtz, assisted by Ms. Buenafe Abdon. (Ms. Abdon was previously employed on the original PAN DLT project at the International Rice Research Institute in the Philippines.) In common with the IRRI, the APRBE has a 'knowledge repository' approach to open and distance learning development, which takes the form of a 'Knowledge Bank' containing information for prospective distance educators on topics including technical information and delivery systems (e.g. Farrell & Wachholtz, 2004). UNESCO will shortly be placing the management of its Knowledge Bank in the hands of the Open University of Malaysia.

UNESCO has concentrated its Asian ICT work in non-formal educational areas, with studies of, for example, the development of community learning centres, 'communities of practice', and ICT-based performance indicators (UNESCO, 2002, 2003). This nonformal emphasis contrasts with the usually more formal orientation of PAN's DLT projects, with their greater emphasis on University-accredited education. However, UNESCO is now considering adding formal educational options to the activities of regional community centre initiatives. This is clearly a sensible strategy, for formal DE initiatives are unlikely to take root in a community if telecentre facilities are not already available there; and, conversely, telecentres tend not to survive if a broad range of nonformal and formal activities are not developed within them. UNESCO has not yet integrated extended its telecentre projects to include DLT activities, however, and its typical level of funding for ICT projects (approx. $10,000 US per project) are unlikely to permit much extensive work in this respect in the near future. PAN evidently has the advantage in being able to move rapidly towards technology-based initiatives that combine formal and nonformal educational objectives. With its existing wide network of telecentres, PAN might ultimately expand its DLT activities to telecentre projects.

This was IDRC/PAN's third visit to APRBE. It indicated that UNESCO and IDRC share similar interests in the development of ICT facilities in the PAN region. Continual consultation is necessary, for the two organizations could unwittingly be responsible for developing very similar, though totally independent, learning facilities within the same communities (e.g. Laos and Cambodia). As MN has pointed out, there is also the danger that such communities could become over-extended in their commitment to such projects. Although such an overlap might not be justified from the economic point of view, it may be useful in terms of the organizations' separate emphases on formal and nonformal educational goals. In future, such initiatives may be strengthened by combining nonformal and formal educational goals.

[*Note: For meeting #63 update, see #18*]

64) Discussion — **Commonwealth of Learning (COL), Vancouver**

Meeting: 16/August/04

Represented by: Sir John Daniel, President; and
Mr. David Walker, Educational Technology Officer.

This meeting took place two months after the other meetings in this report, for Sir John Daniel did not take office at COL until July/04. Sir John's return to Canada is the latest phase of his distinguished career, including the positions of Vice-President at Athabasca and Concordia Universities, President of Laurentian University, Vice-Chancellor of the Open University UK, and most recently as Assistant Director-General for Education at UNESCO in Paris. MN had indicated that two types of IDRC/COL collaboration might become useful: 1) in collaborative programming areas; and 2) with respect to mutual publishing activities. At MN's suggestion, JB visited Sir John in Vancouver to explore these two possibilities, and to provide him with a report on PAN's DLT initiatives. They met in Sir John's office and over lunch at Canada Place.

Sir John expressed great interest in the PAN project, and went so far as to say that the information about its focus and priorities was helpful in his orientation to his new position. COL's prime focus is on distance education and ICT activities, though Sir John stressed that he will ensure that it retains its prime dedication to the Commonwealth countries. These do not overlap with the PAN Asia region, of course, though India and Pakistan retain strong ties to COL. Sir John appears committed to the idea of potential collaboration with IDRC, however, being keenly aware of its work, in part owing to his work with Mr. Sheldon Shaffer, Director of UNESCO Asia Pacific, in Bangkok. He was interested to hear of the recommendation by Prof. Dikshit, Vice-Chancellor of IGNOU, that PAN might collaborate with COL in S. Asia via SACODIL. Sir John expressed a particular interest in PAN's plans to develop open-source software and research on the ICT4D Collaboratory in Jakarta. He has allocated one of COL's staffers, Mr. Paul West, to develop COL expertise in OSS developments, and he indicated that the Collaboratory plan is original and of value to distance education planners internationally. He was pleased to learn the reports in COL's publications series, notably those dealing with OSS and learning management systems (Farrell, 2003), are proving influential in the PAN Asia project's work. Sir John will be open to future ideas concerning joint publication in areas of IDRC/COL mutual interest.

Before leaving COL, JB met with Mr. David Walker, COL's Educational Technology officer, and a former graduate student of JB at Concordia University, Montreal. Mr. Walker has an exceptional 20-year background as an educational technologist in international development. His current projects are focusing, in collaboration with the WHO, on relatively unexplored niche aspects of distance-based health education.

[Sir John Daniel stated that he would be interested to visit the IDRC in Ottawa in November/05, and JB undertook to find out whom he should see there.]

F) A FRAMEWORK FOR DLT RESEARCH & DEVELOPMENT

The PAN DLT programme has funded an excellent, wide-ranging series of projects, which may prove seminal in the development of formal distance education programmes in the PAN region. In order to achieve that development, it is suggested that three major issues be considered.

1) The need for project sustainability through research. The need for project sustainability was expressed to the consultant, as a matter of polite frustration, by project team members in Laos, Mongolia and Vietnam. In each case, a project has ended or is well under way, and the team members' ambition is to expand it in the country's regions. They are anxious to attract further funding for this purpose, and to receive guidance on the most appropriate approach to applying to PAN for it. They tend not to understand, however, that the PAN mandate requires them to create a novel research framework for successive projects. Typically, they have little or no research skill, and they need specific guidance with respect to research techniques (design, hypothesis generation, etc.).

2) The project teams' lack of research skills. With regard to the research and evaluation components of their proposals, existing PAN DLT teams have evidently been greatly reliant on the advice of their project consultants. In some cases (e.g. Bhutan and Vietnam) the teams appear to be pursuing their projects without a full comprehension of their proposals' research commitment, or of how to fulfil it. They resemble graduate students in this respect, who need supervision in order to conduct a reputable, publishable research study. The guidelines received by the teams from their project consultants are sound and expert – though sometimes they seem so thorough and demanding that no one project team may have the skills to fulfil all their goals. The Bhutan project is an example of this problem, now possibly solved by the team's decision to reduce their project's scope. In the process, separate project teams often pursue identical goals, duplicating one another's intellectual efforts. This could be avoided via future PAN networking.

3) The diversity of research goals and guidelines. Ideally, the research components of each project yield conclusions on which new projects can be built. In practice, however, different projects employ a wide range of research methods, in part at least because their various consultants have different research styles and preferences. The result is that little generalisability between projects is possible, and few conclusions can be derived with relevance to the region's DE developers in general. Even specific research goals can be difficult to pursue, given the wide range of research methodologies and data collection procedures used in the projects.

An example of an issue on which few general conclusions are as yet apparent in the projects is that of *DLT gender issues*: the possibility that the effective use of distance learning technologies may be affected by students' gender. JB asked the project teams whether or not they have come to any conclusions on this issue. Their typical response was one of blank incomprehension, or possibly concern in that they did not realise they were supposed to have collected data on the question. In the case of the Bhutan project, still in its early stages, there is every chance that male/female differences in attitudes and learning can be recorded and analysed. The Vietnam team appeared to have no understanding of the steps they should be taking in this regard. In contrast, the team at the Health Sciences University of Mongolia grasped the question instantly, and gave the simple answer that, since 85% of their students is female, an adequate sample of male students is not available to make M/F comparisons viable. The HSUM team also expressed

the view that gender differences in education are a matter of male/female socialization (Chapman, 2004), and that, in an all-female student grouping, the same range of DLT attitudes and outcomes will emerge as may normally by divided along gender lines. With its predominantly female student population, the HSUM could be an original 'laboratory' for pursuing this hypothesis.

At least one PAN project, however, is yielding significant gender-based results. The current (draft) final report of the Indonesia (Universitas Terbuka) project reports t-tests yielding a significant difference in course completion rates between male/female treatment and control groups. The UT project anticipated the possibility of gender effects in systematic, gender-related hypotheses formulated at the project's outset. Future PAN projects require coordination ensuring that teams can explore such research questions methodically, via appropriate demographic, attitudinal and learning measures. A comprehensive set of *a priori* measures could be created so that, wherever relevant, identical evaluative measures can be used across the range of projects. This approach would enable project teams to draw reliable, cumulative conclusions on gender and a wide range of research issues. [A repertoire of evaluation items might be installed on the ICT4D Collaboratory, for project teams to consider at the outset of their work.]

A particular obstacle to the development of research across DLT projects is the diverse range of media that fall within the DLT heading. The PAN DLT projects, while emphasizing uses of the World-Wide Web and other online media, are quite dissimilar in their selection of media and their pedagogical uses of them. In the two Mongolian projects, for example, we see the development of a diagnostic system for doctors, and the application of an online technology for language education (*EVE*). The Universitas Terbuka team (Indonesia) is developing open source software (OSS) platforms and short message system (SMS) approaches to DLT delivery. The Bhutan and Hanoi projects are attempting to develop comprehensive DE support systems including web-based courseware and student services. The two Philippines projects combine traditional video, print, and online media in the non-formal education of community groups.

In addition to having a wide range of pedagogical foci, the PAN DLT projects are also at very different stages of development; and there is relatively little opportunity for cross-fertilization between the projects for this reason also. Four of the seven projects (the Indonesia, IRRI, and two Mongolia projects) are completed or nearing completion. The effects of their selected media and methods can be investigated by *ad hoc* evaluations, if not by the more valid research comparisons which would be permitted if their educational approaches were more similar. The Bhutan, Molave Foundation, and Vietnam projects, being at early or intermediate stages of development, are in a position to benefit from the lessons of earlier projects, and from the software evaluation studies currently evolving in the literature. In fact, the local team leader of the Bhutan project has been swift to react to recent software evaluation evidence (COL, 2003) in questioning his project's previous, relatively arbitrary selection of a course delivery system. The opportunity to compare, adapt and integrate project approaches on the basis of such evaluation evidence can become a major objective of the overall PAN DLT networking initiative.

In conclusion, the diversity of content foci, media and methodologies in the PAN projects jeopardises the extent to which project findings can be compared for the purpose of formal, publishable research. The current overview has aimed to identify ways in which future DLT project teams may collaborate on the research aspect of their work, as well as in the development of complementary DLT delivery methods. Thus, one project team might concentrate on the development of OSS platforms serving multiple projects; another might create SMS applications

for sharing between projects; multiple project teams could collaborate in the development of LO materials for sharing; and so on. On the basis of such network collaboration, it would be possible for project teams to co-develop future DLT proposals and programmes, serving one another's interests and avoiding duplication of their efforts.

An appropriate conceptual framework for this type of media research was provided by Salomon (1979). Salomon indicated that educational media effects are a complex interaction between student abilities and the media techniques ('treatments') used to teach them. In the context of modern Internet-based education, the WWW alone represents an immense range of methods, softwares and hardwares, which afford very different educational experiences for individual learners. The interactions between these DLT 'treatments' and the wide range of student abilities are far too numerous to be controlled using conventional educational laboratory methods. A solution to this problem is to standardize, as far as possible, the DLTs used in specific educational situations. In the delivery of web-based education, for example, comparable learning management systems may be selected on the basis of careful comparisons of their situational strengths and weaknesses. The need to justify software selection on the basis of evaluation studies is becoming especially acute, owing to the rapid proliferation of alternative software options. This could become a valuable research focus of the PAN network.

From 2002-04, for example, the graduate students of Athabasca University's Masters in Distance Education (MDE) programme, under JB's supervision, have evaluated 130 online course tools, most of them proprietary and many of them expensive. Of the 31 learning management systems in this collection, only 5 met international course-sharing standards - an important consideration which, the MDE studies concluded, should advise the selection of DE course delivery platforms henceforward (Baggaley, 2003). During the same period, OSS solutions have proliferated, some of them equal or superior to the costly commercial options, and most of them cost-free. Independent evaluation teams in Canada and the US are currently comparing these DLT tools, and are providing valuable information about their educational merits (Edutools, 2003; Farrell, 2003). The current review tour has indicated that the value of OSS tools is widely recognized in the PAN region, and that PAN project teams are more advanced than many N. American distance educators in their adoption of these tools, and in the development of new DE media such as SMS. The PAN DLT initiative is in a good position to establish a wide range of research and evaluation activities, with the goal of identifying a high-quality range of software methods ('treatments') for use in 'aptitude-treatment interaction' (ATI)-type studies.

The ICT4D Collaboratory in Jakarta is seen as a central feature of future PAN DLT initiatives, whereby specialists from Canadian and Southern institutions (technology 'engines') are deployed to build an Asian DLT research network via carefully selected pedagogical, research, and evaluation methods. The Collaboratory represents a central engine on which the software for this collaborative network can be housed. As PAN's DLT initiative develops, the functions of the Collaboratory could gradually be devolved to web servers in the individual countries, on the basis of server administration training by, for example, the Jakarta staff. Simultaneously, new product evaluation and development functions could be defined for the central Collaboratory, until these too become capable of dissemination to the regions. The cyclic process of centralization and decentralization is a natural feature of DLT implementation schemes over time; and the decentralization process goes hand-in-hand with a deliberately planned dissemination and training approach.

G) TEN PRINCIPLES FOR DLT PROJECT NETWORKING AND COLLABORATION

In order to create a systematic DLT research and development network approach, the following principles are *recommended*. A cyclic model is proposed, providing PAN project teams with DLT skills and tools on a centralized basis, prior to the further development of their skills and facilities at local levels.

1) Individual DLT projects should involve collaboration between project teams in the region, designed to stimulate innovative ideas and to prevent one another from 'reinventing the wheel'.

2) As project teams develop specific DLT skills (in courseware development, instructional design, student information systems, Internet security, etc.), they should be engaged to train other project teams in these skills. Teams should take a lead in developing specific skills, so that they may then be offered to the network via training programmes. In this way, different project teams learn simultaneously and share their learning by networking

3) By the same process, as teams develop specific tools for DE implementation, these should be made available to other project teams for use, as appropriate.

4) OSS products for DE delivery in network projects should be carefully evaluated by different project teams in relation to their specific DLT needs, and could be installed on the ICT4D Collaboratory for this purpose.

5) The Collaboratory could also be used to deliver actual online courses within the network, prior to project teams' development of their own in-house web server facilities.

6) As the network's repertoire of online course materials grows, it could be organized into a PAN 'knowledge repository', to facilitate sharing of materials within the network.

7) In view of the perennial difficulties of sustaining and expanding DLT agencies' outreach and access facilities, a high priority should be placed on mobile courseware development and learning models (the examples of IGNOU and Vigyan Rail provide a revolutionary, and cost-effective model for this purpose).

8) As individual communities become highly active in their use of DLTs, it becomes appropriate to install permanent DLT access facilities in the communities (but not before).

9) An active, ongoing online network audio-conference should be organized, providing project teams with the constant opportunity to compare lessons learned.

10) The network's process should be subjected to rigorous, pre-planned needs assessment, formative and summative evaluation in its own right, in order to identify and publish efficient guidelines for DLT implementation internationally.

This collaborative process can begin immediately, with a face-to-face workshop at which existing PAN project leaders and other active DLT users collaborate on a new batch of proposals for PAN funding (Appendix III). The above research and development approach will be discussed in detail in a *PAN DLT Handbook*, to be drafted by the Consultant by the end of Summer 2004.

H) CONCLUSIONS

The current and completed PAN DLT projects provide numerous opportunities for evaluation studies, and for the more formal research on which future DLT projects can reliably be built. The PAN DLT initiative (2004-07) will have an opportunity to create a network framework for formal research, and for the development of future DLT projects on a collaborative basis. Such a framework could provide an integrated approach to DLT development in the PAN region, advising future project proposals and their assessment. This coordinated, networking process could be unique in the international distance education field. Current PAN projects at an early stage of development (e.g. the Bhutan and Philippines projects) could take direct advantage of the evaluation and research findings produced by the network. Individual project teams could develop specialized skills that they could pass on to other teams in regional training programmes. If it proves able to adopt new methods speedily, the ICT4D Collaboratory can become a major 'engine' of this initiative, and of the process by which Canadian and Asian research and development expertise is deployed in the PAN region. An integrated DLT networking approach would generate major opportunities for publication in the international literatures of DE and community development research.

I) REFERENCES

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J) CONSULTANT BIOGRAPHY

Dr. Jon Baggaley is Professor and former Chair of Educational Technology at Canada's Open University (Athabasca University) in Alberta, Canada. He has taught previously at the University of Liverpool (UK), Memorial University of Newfoundland, and Concordia University, Montreal, where he was Chair of Education. Prof. Baggaley is the author of 150 articles and author/editor of 10 books on the design and evaluation of educational media. He has consulted in the educational communications field for governmental, broadcasting and non-governmental organizations in Canada, the US, Europe, Africa, Asia, and the former Soviet Union. He is Associate Fellow of the British Psychological Society, and a member of the New York Academy of Sciences.

Respectfully submitted,
JB, 24/July/2004.

APPENDIX I:

Discussions during the consultancy
(December/03 – May/04)

EXISTING PAN DLT PROJECTS	
1	International Rice Research Institute, Los Baños, The Philippines
2	English for Special Purposes Institute, Ulaanbaatar, Mongolia
3	Universitas Terbuka, Jakarta, Indonesia
4	National Institute of Education, Samtse, Bhutan
5	Health Sciences University of Mongolia, Ulaanbaatar, Mongolia
6	Fisheries College #4, Bac Ninh, Vietnam
7	Molave Development Foundation Inc., Makati City, The Philippines
POTENTIAL PAN PROJECT PARTNERS AND RELATED AGENCIES	
	BHUTAN:
8	Ministry of Information & Communications, Thimphu
9	Ministry of Education, Thimphu
	CAMBODIA:
10	Center for Advanced Study, Phnom Penh (Note: *potential ICT partner rather than DLT*)
11	Prime Minister's Office, Government of Cambodia, Phnom Penh
11 12 13 15	Ministry of Education, Youth & Sport, Phnom Penh: Department of International & ASEAN Affairs Teacher Training Department National Institute of Business Higher Education Department
14	International Institute of Cambodia, Phnom Penh
16	Royal University of Phnom Penh
17	Institute of Technology of Cambodia, Phnom Penh
	HONG KONG:
18	Open University of Hong Kong
	INDIA:
19 -27	Indira Gandhi National Open University, New Delhi Office of the Vice-Chancellor International Division School of Education Staff Training & Research Institute of Distance Education Computer & Information Science (Online Working Group) School of Humanities

	Electronic Media Production Centre Centre for Extension Education
28	National Institute of Open Schooling, New Delhi
29	Vigyan Rail, Department of Science & Technology, Government of India
	INDONESIA:
30	ASEAN Foundation, ICT4D Laboratory, Jakarta
31	Universitas Islaam Negri, Jakarta
32	Assessment & Application of Technology Agency, Jakarta
	LAOS:
33-4	Science, Technology & Environment Agency (STEA), Vientiane
35	Participatory Development Training Centre, Luang Prabang
36	National Science Council, Vientiane
37	National University of Laos, Vientiane
38	Ministry of Education, Vientiane
39	Lao-American College, Vientiane
	MONGOLIA:
40	Infocon, Ltd., Ulaanbataar
41	Health Sciences University of Mongolia, Ulaanbaatar (Vice-President, Research)
	PAKISTAN:
42	Higher Education Commission, Islamabad
43	Allama Iqbal Open University, Islamabad
44	Ministry of Information Technology, Government of Pakistan, Islamabad
45	Commission on Science & Technology for Sustainable Development in the South, Islamabad
46	Virtual University of Pakistan, Lahore
	KarakorumArea Development Organization, Gilgit Baltistan Health & Education Foundation, Islamabad
47	National University of Computer & Emerging Sciences, Lahore
	PHILIPPINES:
48	University of the Philippines Open University, Los Baños
	THAILAND:
49	Sukhothai Thammathirat Open University, Bangkok
	VIETNAM:
50	Ho Chi Minh City Open University
51	Vietnam Development Information Centre, Hanoi
52	Netn@n Ltd., Hanoi
53	Ministry of Education & Training, Hanoi
54	Ministry of Science & Technology, Hanoi

	OTHER DEPARTMENTS AND AGENCIES:
55	*Digital Review* editorial meeting, Jakarta
56	Network of UNESCO Chairs in Communications, Orbicom
57	Agence de la Francophonie
58	Ministry of Education, Research & Technology, Iran
59	ASEAN Foundation/ Orbicom Seminar, Jakarta
60	S. Asian Ministers of Education Organisation (SEAMEO), Jakarta
61	SEAMEO Regional English Language Centre (RELC), Singapore
62	UNESCO Asia & Pacific Regional Bureau for Education, Bangkok
64	Commonwealth of Learning, Vancouver

APPENDIX II:

Organisations and DE teams visited
(December/03 – May/04)

Note: ID column refers to the meeting # in the current report.

COUNTRY	INSTITUTION	ID	MAIN CONTACTS	CAPACITY	E-MAIL
BHUTAN	National Institute of Education (NIE), Samtse	4	Mr. Thupten Gyatsho	Director	?
			Mr. Sangay Samtsho	PAN project manager	sjamtsho@email.com;
	Min. of Info. & Communication	8	Mr. Sangay Wangshuk	Deputy Director, Dept. of Info. Technol.	swangchuk@dit.gov.bt;
	Sherubtse Coll., Trashigang		Mr. Nidup Dorji	Asst, Principal + Head, Computer Sciences	nidup_dorji@hotmail.com;
CAMBODIA	Center for Advanced Study	10	Dr. Hean Sokhom	President	sokhom@forum.org.kh;
			Mr. Roger Henke	Institutional Development Specialist	rhenke@forum.org.kh;
	Prime Minister's Office	11	Mr. Chea Sok Huor	National Committee for Standardization of Khmer Script in Computers	012811947@mobitel.com.kh;
	Ministry of Education, Youth & Sport		Mr. Om Sethy	Director, Department of Internat'l & ASEAN Affairs	crsmeys@camnet.com.kh;
			Mr. Mam Sam Oeurn	Deputy Director, Dept. of International & ASEAN Affairs	
			Mr. Sok Tha	Vice-Chief, Information Dept. of International & ASEAN Affairs	soktha@everyday.com.kh;
		12	Mr. Leang Seng Hak	Dep. Director, Teacher Training Department	?
			Ms. Tan Ly Huang	Assistant, Teacher Training Department.	?
		13	Mr. Eang Sophal	Director, National Institute of Business	nib@nib.edu.kh;
			Mr. Lach Socheath	Deputy Director, Nat'l Institute of Business	
			Mr. Nop Sothea	Senior Manager, Liaison Unit & E-learning, National Institute of Business	
		15	Mr. Mak Ngoy	Deputy Director, Higher Education Dept.	?
	International Institute of Cambodia	14	Mr. Chhuon Chan Than	Director	chh.chanthan@iic.edu.kh;
			Dr. Malcolm Innes-Brown	Dean, Graduate School	innes-brownm@iic.edu.kh;
	Royal Univ. of Phnom Penh	16	Dr. Neth Barom	Vice-Rector	nethbarom@camnet.com.kh;
	Inst. of Technol. of Cambodia	17	Dr. Phoeurng Sackona	Director	sackonap@itc.edu.kh;

HONG KONG	Open University of Hong Kong	18	Dr. David Murphy	Acting Director, Centre for Research in Distance & Adult Learning (CRIDAL)	dmurphy@ouhk.edu.hk;
			Dr. Zhang Wei Yuan	Research Fellow, CRIDAL (DOVILES project)	wyzhang@ouhk.edu.hk;
			Ms. Chen Li	Research Fellow (seconded from Beijing Normal University)	?
			Ms. Elaine Kwok Che Yan	Research Assistant (DOVILES project), CRIDAL	ekwok@ouhk.edu.hk;
			Mr. Jason Chan	Research Associate, CRIDAL	kychan@ouhk.edu.hk;
INDIA	Indira Gandhi National Open University (IGNOU), New Delhi	25	Prof. H.P. Dikshit	Vice-Chancellor	?
		26	Prof. S.C. Garg,	Pro-Vice-Chancellor	?
		19	Dr. Ved Goel	Director, International Division	vgoel@ignou.ac.in;
		20	Prof. Sohanvir Chaudhary	Director, School of Education	svschaudhary@ignou.ac.in;
			Dr. Chandra Bhushan Sharma	Reader in Education	sharmacb2000@yahoo.com;
		21	Prof. Santosh Panda	Professor of Distance Education	spanda@ignou.ac.in;
		22	Dr. Shashi Bhushan	Professor, Computer & Information Science ?	?
			Dr. Akshay Kumar	Reader, Computer & Information Science	akshay@ignou.ac.in;
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		24	Prof. Madhulika Kaushik	Dir., Electronic Media Production Centre	mkaushik@ignou.ac.in;
			Dr. Zeba Khan	Deputy Dir., Electronic Media Production Cntr	zebakhan@hotmail.com;
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			Prof. Devesh Kishore	Head, Education Research & Training	deveshkishore@hotmail.com;
			Mr. Sunil Kumar Das	Producer, Electronic Media Production Cntr	sunilkdas100@hotmail.com;
		27	Prof. Panjab Singh	Director, Centre for Extension Education; & Professor of Agriculture	psingh@hotmail.com;
	National Inst. of Open Schooling New Delhi	28	Dr. Sushmita Mitra	Director Academic	sushmila@hotmail.com;
			?	Webmaster	?
	Dept. of Science & Technology, New Delhi	29	Dr. Vinay Kamble	Scientist “G”/ Advisor (Vigyan Rail project)	vbkamble@alpha.nic.in;
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INDONESIA	Universitas Terbuka, Jakarta	3	Dr. Tian Balawarti	Vice-Rector, Academic Affairs	tian@mail.ut.ac.id;
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			Mohamad Toha Anggoro	Project technical officer	?
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			Ms. Nayu	Program assistant	
	Universitas Islaam Negri (UIN), Jakarta	31	Dr. Syopiansyah Jaya Putra	Dean of Science & Technology	syopian@centrin.net.id;
	Assessment & Application of Tech. Agency (AATA) Jakarta	32	Dr. Derry Pantjadarma	Head of Programme Development	derrypan@scientist.com;
LAOS	Min. of Science, Technology, Environment Agency (STEA)	33 34	Mr. Phonpasit Phissamay	Head of IT ?	phonpasit@stea.gov.la;
			Mr. Valaxay Dalaloy	?	valaxay@stea.gov.la;
	National University of Laos, Vientiane		Mr. Bounthong Vongxaya	Director?, IT Center	bounthong@nuol.edu.la;
		37	Assoc. Prof. Tuyen Dongvan	Vice-President (Planning & International Relations)	dongvan@nuol.edu.la;
	Participatory Development Training Centre (PADETC), Luang Prabang	35	Mr. Sombath Somphone	Director	padetc@laotel.com;
	National Science Council	36	Mr. Somphone Phanousith	Permanent Secretary	phanousit@laotel.com;
	Ministry of Education	38	Mr. Lytou Bouapao	Director-General, Department of Planning & International Cooperation	bouapao@yahoo.com;
	Lao-American College	39	Ms. Virginia Van Ostrand	Co-Director	lac@laopdr.com;
			Mr. Chanthala Phaboonheuang	Operation Manager of Acad. Affairs & Head of Business Faculty	
MONGOLIA	International House, Ulaanbaatar	2	Ms. Shagdaryn Saranchimeg	Director, English for Special Purposes Institute (ESPI); and PAN project leader	saranchimeg@magicnet.mn;
	Health Sciences University of Mongolia, Ulaanbaatar	5	Prof. Ts. Lkhagvasuren	HSUM President; and PAN project leader	tsetselkh@yahoo.com;
			Dr. Amarsaihkan	PAN project manager	amarsaikhan99@yahoo.com;
			Ms. Oyun	PAN project administrator	?
			Mr. Bataar	Director, Sain-shand College, Dornogobi	?
		41	Dr. Narantuyas	VP, Research	narantuya@hsum.edu.mn;
	InfoCon, Ltd., Ulaanbaatar	40	Mr. Baljin	Director (succeeding Ms. Nara Baljin)	?

			Ms. Baljin	Administrator	?
			Mr. Batpurev	PAN project programmer	batpurev@infocon.mn;
			Ms. Munkhzul	PAN project materials programmer	munkhzul@infocon.mn;
PAKISTAN (visited by MN)	National Univ. of Computer & Emerging Sciences,Lahore	47	Dr. Sarmad Hussain	Director, Center for Research in Urdu Language Processing,	sarmad.hussain@nu.edu.pk;
	Virtual Univ. of Pakistan,Lahore	4	Dr. Naveed Malik	Rector	rector@vu.edu.pk;
	Commission on Science & Technology for Sustainable D'ment in the South:COMSATS Islamabad	45	Mr. Tajammul Hussain	Deputy Director	?
			Mr. I. S. M. Qureshi	Director of Finance	?
	KarakorumArea Development Organization (KADO), Gilgit	43 46 47	Mr. Rahat ullah Baig	Manager, ICT4D	?
			Mr. Amin Baig	?	?
	Baltistan Health & Education Foundation, Islamabad		Mr. Hans Frey	?	?
	Higher Educ. Commission, Islamabad (*met by MN*)	42	Dr. Sohail Naqvi	Member, Human Resource Development & Strategic Planning	snaqvi@hec.gov.pk;
			Mr.M. Jalil Ahmed	Director-General, Strategic Vision & Quality Assurance	jahmood@hec.gov.pk;
	Allama Iqbal Open University (AIOU), Islamabad	43	Dr. S. Altaf Hussain	Vice-Chancellor	?
			Dr. Nazir Ahmed Sangi	Chair of Comp. Science & Dir. of e-Learning	pd@itsn.aiou.net.pk;
			Prof. Najeeb A. Khan	Dean of Social Sciences & Humanities; and Chair, Business Admin.	?
	Ministry of Information Technology, Islamabad	44	Dr. Amir Mateen	Managing Director, Pakistan Software Export Board	amatin@pseb.org.pk;
			Mr. Jamshed Masood	Director (Telecom), IT & Telecomms. Division	?
PHILIPPINES	Int'l Rice Res. Inst. (IRRI), Los Baños	1	Dr. Mark Bell	Head, IPMO & Training Centre; and PAN project leader	m.bell@cgiar.org;
			Ms. Gina Zarsadias	Production supervisor; PAN project manager	g.zarsadias@cgiar.org;
			Dr. Albert Atkinson	Director, Rice Knowledge Bank	a.atkinson@cgiar.org;
			Mr. David Shires	Project design & management specialist	d.shires@cgiar.org;
	Molave Development Foundation Inc.	7	Dr. Angelo Ramos	Director; and PAN project leader	ajoramos@pldtdsl.net; ajoramos@molave.org;
			Mrs. Ramos	Founding Director	?

			Mr. Jerome Trinona	Media production specialist	
			Mr. Michael Ramos	Digital media specialist	?
			Ms. Vangie Panol		?
	University of the Philippines Open University	48	Dr. Lex Librero	Chancellor	flibrero@upou.org;
THAILAND	Sukhothai Thammathirat OU, Bangkok	49	Prof. Pratya Vesarach	President	?
			Dr. Patamaporn Yenbamrung	Acting Vice-President (Academic)	patamaporn@stou.ac.th;
			Mr. Siracha Charoenpanij	Vice-President (Planning)	?
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VIETNAM	Fisheries College #4, Bac Ninh, Vietnam	6	Mr. Nguyen van Viet	Director; and PAN project leader	nvvietts4@hn.vn.vn;
			Ms. Tran thi Tai	PAN project manager	tts4-ht@hn.vnn.vn;
	Netn@m Ltd., Hanoi	52	Mr. Tran ba Thai	Director; and PAN project support manager	thai@netnam.vn;
			Mr. Nhuyen viet Hung	Programmer	hung@netnam.vn;
			Mr. Vu the Binh	Systems analyst	binh@netnam.vn;
	Ho Chi Minh City Open University (HCMOU)	50	Mr. Hua van Duc	Vice Director, Centre for Distance Educ	hvduc@ou.edu.vn;
			Mr. Ho huu Tri	Directeur-Adjoint, CDE	hohuutri01@yahoo.com;
			Ms. Le Thi Thanh Thu	Deputy Director, Office of Foreign Cooperation	lttthu@ou.edu.vn; thanhthul@hotmail.com;
	Vietnam D'ment Info Centre, Hanoi	51	Mr. Andrew Scyner	Manager, Global Development Learning Network laboratory	ascyner@worldbank.org;
	Ministry of Education & Training, Hanoi	53	Mr. Nguyen Ngoc Hung	Deputy Director, Int'l Cooperation	vlchung@hn.vnn.vn;
			Ms. Nguyen Thi Hanh	Officer, Int'l Cooperation	nguyenhanh@moet.edu.vn;
	Min. of Science & Tech., Hanoi	54	Mr. Quynh	Information & Technology Office	quynhnt@moet.gov.vn;
(OTHER)	*Digital Review*	55	Mr Chin Saik Yoon	Editor and Publisher	chin@south.pc.my;
	Orbicom	56 59	Dr. Claude-Yves Charron	Secretary-General	charron.c-y@uqam.ca;
	Agence de la Francophonie	57	Mr. Pietro Sicuro	Director	pietry.sicuro@francophonie.org;
	Min. of Educ, Research & Technol., Iran	58	Prof. Masoud Shafiee	Deputy Minister	shaffiee@ptt.gov.ir;
	S. Asian Ministers of Education Organisation (SEAMEO)	60	Dr. Anung Haryono (Jakarta)	Deputy Director, HRD & PR	?
		61	Mr. Thomas Khng (Singapore)	Deputy Director, RELC	tkhng@relc.org.sg;
			Dr. Joe Foley (Singapore)	Editor: RELC Journal	jfoley@relc.org.sg;

	UNESCO Asia & Pacific Regional Bureau for Education, Bangkok	62	Mr. Cédric Wachholtz	Programme Specialist (Information & ICT in Education)	c.wachholtz@unescobkk.org;
			Ms. Buenafe Abdon	Assistant Project Officer, ICT in Education	b.abdon@unescobkk.org;
	Commonwealth of Learning	63	Sir John Daniel	President	abacchus@col.org
			Mr. David Walker	Educ. Technology Officer	dwalker@col.org;

APPENDIX III:

Recommendations for DLT planning meeting
(September 2004):

A) List of recommended invitees:

		Potential project area
Bhutan (2):	Mr. Thupten Jamtso	(*Local Administration*)
	Mr. Sangay Jamtsho	Evaluation (after training)
Cambodia (2):	Mr. Chea Sok Huor	(*Local Administration*)
	Mr. Chhuon Chan Than	Business models
Hong Kong (2):	Dr. David Murphy	(*Local Administration*)
	Dr. Zhang Wei Yuan	Evaluation + evaluation training
India (4):	Prof. Santosh Panda	**Potential project leader**
	Dr. Zeba Khan	(*Local Administration*)
	? (NIOS) (*technical*)	Student information systems
	Dr. Vinay Kamble	Mobile training system (railroad)
Indonesia (4):	Dr. Tian Balawarti	**Potential project leader**
	Dr. Antonius Hardhono	Online courseware development
	Mr. Eddy Bahfen	(*Local Administration*)
	Mr. Dominic Soh	Systems analysis
Laos (5):	Mr. Phonpasit Phissamay	(*Local Administration*)
	Mr. Bounthong Vongxaya	Educational media support
	Mr. Sombath Somphone	(*Local Administration*)
	Ms. Virginia Van Ostrand	(*Local Administration*)
	Mr. Chanthala Phaboonheuang	Business models (**Potential future project leader**)
Mongolia (5):	Ms. Shagdaryn Saranchimeg	(*Local Administration*)
	Prof. Ts. Lkhagvasuren	(*Local Administration*)
	Dr. Amarsaihkan	Educational outreach
	Mr. Baljin	(*Local Administration*)
	Mr. Batpurev	Advanced programming skills
Pakistan (2):	Dr. Sarmad Hussain	Computing and training expert
	Dr. Naveed Malik	**Potential project leader**
Philippines (4):	Dr. Mark Bell	(*Local Administration*)
	Dr. Albert Atkinson	Instructional design
	Dr. Angelo Ramos	(*Local Administration*)
	Dr. Lex Librero	(*Local Administration*)
Thailand (2):	Dr. Patamaporn Yenbamrung	(*Local Administration*)
	Ms. Sunee Silphiphat	Online outreach and security
Vietnam (3):	Mr. Nguyen van Viet	(*Local Administration*)
	Ms. Tran thi Tai	Educational outreach
	Mr. Tran ba Thai	Open source platforms
	Hua van Duc	(*Local Administration*)
	Ho huu Tri	Student information systems

[Note: Not visited by JB or MN during this overview tour, but visited previously by Maria and invited to the September/04 meeting: **Prof Samaranayake**, School of Computing, University of Colombo, Sri Lanka.]

B) Suggested programme of September/04 planning meeting (*2.5 days*):

(1st half-day): *3 hrs.*

- Outline of PAN DLT collaborative project plan (*20 mins.*)
- PAN project proposal requirements (*20 mins.*)
- Brief descriptions of regional strengths (7 presentations @ approx. *20 mins each*):
  - Project sustainability (Mongolia + Vietnam + Laos)
  - The Collaboratory and OSS systems (ASEAN + UTerbuka, Indonesia + Netnam)
  - Instructional design + knowledge repositories (Bhutan + IRRI, Philippines)
  - Student information and security (NIOS, New Delhi + Thailand)
  - Community delivery (IGNOU, India + Molave, Philippines + Vighyan, India)
  - Business models (Cambodia + Pakistan)
  - Project evaluation (Hong Kong)

(2nd half-day): *3 hrs.*

- Collaboration discussions (*90 mins.*)
- General discussion (*90 mins.*)

(Overnight discussion of new projects)

(3rd half-day): *3 hrs.*

- Budget drafting (project groups)

(4th half-day): *3 hrs.*

- Proposal drafting (project groups)

(Overnight editing of proposals)

(5th half-day): *3 hrs.*

- Discussion of proposals (*2 hrs.*)
- Future plans (*60 mins.*)

JPB,
13/June/04.

APPENDIX IV:

Informal proposals arising from STEA workshop
(Vientiane, Laos, 7/May/2004)

Memo to: Ms. Maria Ng, IDRC PAN Network, Singapore
From: Dr. Jon Baggaley (in Vientiane)
Copies: Mr. Phonpasit (STEA), Mr. Sombath (PADETC), Dr. Bounthong (NUOL)
Subject: Meeting of DE specialists in Vientiane (7/May/04)
Date: 7th May 2004

Today's DLT discussion yielded an unusually wide range of idea for DLT projects in Lao PDR. Three subgroups discussed 1) creation of DE content; 2) DLT infrastructure; and 3) training and awareness needs - an approach suggested by the group, which ensured that a comprehensive range of DLT issues was covered.

30 people took part in the morning session, including Mr. Phonpasit, Mr. Sombath, and Dr. Bounthong. Many of the participants also stayed on for the afternoon session, and generated the recommendations reported below. Specialists who were unable to take part in the afternoon session told me of further project interests, which I will include in my final overview report. I look forward to visiting NUOL and other centres of expertise on Monday.

The three subgroups developed the following independent report, and asked me to send it to you immediately. With the assistance of NUOL, PADETC, and STEA, I am optimistic that one or more excellent project Lao proposals can be developed. My thanks for Mr. Phonpasit and Mr. Sombath for moderating today's session so well.

JPB.

A) Creation of DE content:

- Mrs. Thongpane Phommala
  Rattana Business Administration College

- Dr. Saykham Voladet
  National Economic Research Institute. Committee for Planning and Cooperation

- Mr. Vonechith Thepkaysone
  Department of Communication and Transport (National University of Laos)

- Dr. Soukanh Chithpanya
  Department of Architecture (National University of Laos)

The discussion stressed three problem areas:

- the lack of DE teachers;
- the lack of DE teaching materials; and
- the lack of opportunity for provincial students to attend higher education classes.

A new Lao project would develop web-based materials a) to provide post-secondary training, compensating for the lack of university-level tuition in the provinces; and b) to provide DLT update skills for teachers. Specific content areas with immediate DLT needs include business administration and development.

The following strategy for a possible *one-year DLT project* was discussed:

- establish a technical team involving the collaboration of NUOL and other colleges;
- generate discussion among all the teachers who are interested in creating DE content in the most appropriate approaches for their students;
- provide them with training in methods of content development, and in the conversion of existing teaching materials into web-based materials;
- develop a public relations approach, to advertise and disseminate DE information to the target users.

Funding support would be needed for:

- hardware and software support;
- creating the teaching materials;
- training the teachers; and
- creating awareness handbook materials.

Specific outputs would include:

- user statistics;
- rationales for DLT usage in Lao;
- data about quality of ISP support.

B) Infrastructure Issues:

- Mr. Boun Om Phimsipasom
  Department of Electronic Engineering, Computer section (National University of Laos)
  E-mail: bounom@nuol.edu.la

- Mr. Khamphanh Souvannakha (*Lao News Agency: KPL*)
  E-mail: khamphanh@laonix.net.la
  Web: www.kplnet.net and www.kpl.net.la

- Mr. Khamsone Pengmanivong
  DECLAO, PADETC and Telecentre LPB
  Web: www.declao.com, www.tourlao.com, and www.mahasan.com
  E-mail: webmaster@declao.com

Planning a DLT project in Lao requires discussion of:

- the most appropriate educational media (traditional and online) for the target users;
- effective policy and strategies for use by the project partners;
- development of flexible and varied DE content;
- effective adaptation of teaching mechanisms;
- an appropriate number of resource persons;
- up-to-date equipment;
- development of a support system at college level;
- evaluation of the DE service;
- facilities to share the experience with other DE teams;
- facilities to create public awareness; and
- budget including maintenance and sustainability;

A new, 2-year Lao project would develop a cost-effective approach to life-long learning and training, serving governmental and community organizations. It would

- develop resources for the DE content providers and users;
- create resources and assistance for the individual teachers who wish to develop web-based teaching material;
- use methods permitting regular updating of content materials.
- retain a role for traditional media, including TV and videotape, radio and print;
- provide training allowing DE developers to share their experience with other interested groups and individuals;
- include research into appropriate DE service charges and revenue generation; and
- include an evaluation component to enhance the DE service's sustainability.

3) Training &Awareness

- Mrs. Khamsoy Vongsamphanh
  Directrice-adjointe, Lycée Vientiane

- Dr. Somechanh Xaysida
  Head, Division of Training & Education, Department Organisation & Personnel, (Min of Health)

- Dr. Bounlith Vilaylack
  Faculty of Medical Science (National University of Laos)

- Dr. Bounlom Keobouahom, MD, M.Phil.
  National Institute of Public Health (Ministry of Health)

A new Lao DLT project would overcome the fact that most Lao people are not aware of DE and its methods. It would require support to establish:

- regional DE training in the northern, central and southern parts of Lao PDR;
- a mobile team of DE trainers to provide seminars and training courses in every province;
- teaching staff and operating support for training centres;
- facilities for the centres, including computer with Internet access; and
- at least 3 updating training courses per year for each centre.

Two e-mails from Laos, expressing interest in DLT project funding:

----- Original Message -----
From: The Lao-American College
To: jon@baggaley.com
Sent: Tuesday, May 11, 2004 1:09 AM
Subject: From the Lao-American College

Dear Jon Baggaley,

Thank you so much for your visit with us May 10, 2004. I apologize that we could not visit longer, as we had a guest speaker scheduled. I hope that you will be able to spend time with us again, in the near future.

We talk our motto, "Think globally, (but) study locally,"very seriously. We would like our students to have opportunities to access global out reach and all points of view and philosophies. Distance learning is one way to make that possible, if affordable.

Personally, I welcome every opportunity that will help Lao citizens to make wise and informed choices that are suitable for their own needs. I would deeply appreciate the opportunity to access your capabilities and supportive assistance for quality educational opportunities for our students now and in the future. Please feel free to offer suggestions and ideas--we welcome these, sincerely.

We hope to hear from you soon again. Please don't forget us and what we want so much for the Lao people.

Sincerely yours,

Virginia ("Ginny") Van Ostrand and us all at LAC

----- Original Message -----
From: Bounthong Vongxaya
To: jonbag@baggaley.com
Cc: mng@idrc.org.sg
Sent: Thursday, May 13, 2004 3:36 AM
Subject: IDRC support

Dear Prof. Jon Baggaley

It was nice to meet you and learn about the possibility to establish "Distance Education Project".

The IT Center of National University of Laos now is implementing ICT development project, which mainly emphasis on the establishment of Internet/Intranet infrastructure. For example, we have setup wireless backbone to link between faculties and campuses, we setup internet service room in each campus and also set up wireless link to STEA to finally get to Internet (we are considering to put fiber optic from NUOL to STEA to replace wireless).

This infrastructure will have to be utilized to support teaching, learning and research activities at NUOL. I am looking for support on a project where we can fund for the development of contents for the NUOL intranet, so that students can have more reading material using internet technology. The shortage of reading material for students is one of problems faced by NUOL. Further more, NUOL IT center is planning to be Academic ISP, so our next target could be schools students or students from professional and technical schools outside university.

I would be appreciate if you could kindly comments on this idea and advise on how we can prepare project proposal to IDRC.

Best regards,
Bounthong

APPENDIX V:

Informal proposal arising from IGNOU meeting
(New Delhi, 12/May/2004)

Interactive Multimedia and Distance Learning for Primary Education and Teacher Professional Development in CMLV and SAARC Countries

Informal submission via JB to IDRC,
by Prof. Santosh Panda (15/June/2004)

Introduction

While on the one hand there is considerable demand and legislative pressure to expand primary education enrolment, retention and completion, and train the backlog of inservice untrained teachers and undertake continuing professional development, on the other hand there have been considerable developments in distance learning, technology-enabled education and blended learning in the CMLV (Cambodia, Mynmar, Laos, Vietnam) and SAARC (South Asian) Countries. The Indira Gandhi National Open University (IGNOU) in India has grown tremendously into the second largest mega university in the world with 1.2 million students and presence in 26 countries overseas. Its media capability and the national distance learning initiatives for primary education and teacher training, funded centrally by the federal government, promise cross border application in the neighbouring countries, and for mutual collaboration, networking and sharing.

IGNOU and Distance Learning

IGNOU is the largest university in India as also in Asia, and adopts multimedia distance education delivery for above 1.2 million students studying about 86 certificate, diploma and degree programmes through about 860 courses ranging from women self help group, human rights, HIV AIDS, disaster management to MBA online and doctoral programmes. The university has one of the best state-of-the-art media centres in Asia, and uses blended learning through print, audio, video, radio, television, interactive radio, FM radio, two-way teleconferencing, interactive multimedia CD, and online learning. The delivery takes place through a network of 48 regional centres and about 1100 study centres including about 700 downlinks through VSATs, and nearly 25,000 counsellors. The Government of India had placed the satellite transponder for education and training (and the only uplink facility other than the government itself) at IGNOU campus for educational telecast/broadcast and teleconferencing for the entire education sector in the country operating through six TV channels - each one exclusively for higher education, school education, language education, technical education, agricultural education, and one for teleconferencing. The proposed launch of EduSat (a fully dedicated satellite for education) by the Indian government in 2004 shall boost distance learning further; and therefore IGNOU has been experimenting the convergence of satellite-based and web-based educational delivery to be mainstreamed soon.

IGNOU, as an apex body for distance learning, has also been mandated by the Indian Parliament to coordinate, fund, maintain quality standards and accredit the distance education systems in the country — presently comprising 11 open universities, 104 dual-mode university distance education centres, and numerous private and autonomous organisations - through its Distance Education Council.

Interactive Multimedia and Online Learning

IGNOU has been offering online learning since 1996; and at present four programmes are offered online - MBA, Bachelor of Information Technology, Advanced Diploma in Information Technology, and Certificate in Rehabilitation and Resettlement. The other national programmes under preparation include: diplomacy online (for diplomats posted outside the country), food processing online, library networking online, research training online, and educational policy and management online. It has its own open source web platform, and attempt is being made to transform the regular teleconferencing to satellite-supported web-based two-way digital conferencing through extensive use of VSATs, to reach remotest corners of the country. As a policy decision, many of the IGNOU programmes are being transformed into interactive multimedia CD-ROMs which judiciously blend print, audio, video, graphics and animation. Most of its international programmes offered in 26 countries are being transformed into IMM and online programmes. The UNESCO supported basic education programme is available in IMM-CDs, for both neo-literates and teachers.

The most interesting part of the university's tremendous development and quality assurance is its considerable expertise in instructional design for blended learning separately and as judicious media mix for print, audio, video, interactive radio, teleconferencing, interactive multimedia, and web-based learning in areas at different levels ranging from certificate programmes to doctoral programmes, and in areas of study ranging from local self governance and women empowerment to surgery and engineering. As a policy decision to further augment blended learning, the university has created an Inter-University Consortium for Technology-Enabled Education to develop interactive multimedia content in CDs, undertake training in this area, and conduct R&D for online blended learning.

Primary Education Project

IGNOU has been offering certificates, diplomas, postgraduate diplomas and doctoral programmes in teacher education for about last one and half decades. These concern primary and secondary education, higher education, specialised programmes for the north-eastern hilly states, kendriya vidyalayas (central schools), navodaya vidyalayas (model schools), and for mathematics teaching and English language teaching. For the distance education delivery of these programmes a blended learning approach combining various media like print, face-to-face practicals and counselling, audio and video cassettes, interactive radio and television programmes, and occasional teleconferencing is being used. Its teacher education programmes are also offered in many countries overseas.

IGNOU was entrusted with the responsibility of the distance learning component of the massive nation-wide District Primary Education Programme, funded by the World Bank, European Commission, DfID, UNICEF, and others, to achieve the goal of universalisation of elementary education by 2000. This project was terminated in 2003, and was transformed to a more serious, vigorous and wider national project of Sarva Shiksha Abhiyan (Education for All) in July 2003 with the goal to achieve universal elementary education by the year 2010. The distance education programme (DEP) of SSA is given by the Ministry of Human Resource Development, Government of India to IGNOU to adopt a blended learning approach to undertake capacity building of teachers, students, officers associated with SSA (EFA), village education committees, and the community at large to achieve the goals as also to improve the quality of instruction and school complex. In 2003-2004, the nation-wide implementation of computer-based elementary education (CBEE) was introduced under which all the students will have access to interactive multimedia CDs in hard spots in subject areas of English, Maths, Science, Mother Tongue and Social Studies in grades I to VIII; all the teachers will be trained for computers and IMM-CDs; and that all the primary and elementary schools in each of the 29 states and all union territories will be equipped with latest PCs.

IGNOU has so far adopted six states in the country, with full responsibility of training hundreds of thousands of teachers on IT; development of interactive multimedia CDs in the hard spots of all subject areas for classes I to VIII; training of master trainers (from among teachers) for teacher training and IMM-CD development; and orientation of other functionaries of SSA/EFA for effective implementation of this comprehensive project in a phased manner till 2010. The DEP-SSA and the Inter-University Consortium of IGNOU in collaboration with the Madhya Pradesh Bhoj (Open) University have in place a team of multimedia specialists comprising content specialists, script writers, CD programmers, audio and video producers, graphic artists, instructional designers and others, guided by the project leaders who specialise in these areas. The project undertaken in the state of newly created backward and tribal state of Jharkhand is an examplar one which can be emulated in other countries of CMLV and SAARC. The tasks included simultaneous training of teachers on IT, installation of PCs in schools; development of IMM-CDs in various subjects areas for various grades; their distribution and use in schools; training of other functionaries at state, district, block, cluster and village level associated with SSA/EFA; and monitoring and evaluation of the project.

This gigantic task - which will cover hundreds and thousands of schools and teachers and millions of children in each state - is being coordinated carefully and observed minutely for its quality assurance, transfer of skills and further use in teaching-learning and substainability. There is intensive research and design for teacher processes (starting of needs analysis to transfer of skills) in this model; involvement and training together of teachers and students on IMM-CDs; localisation of language, graphics, animation, voice and visuals; and simultaneous use of other media like radio, TV, video, teleconferencing and face-to-face interaction in this technology enabled blended learning for primary and elementary education.

This model can be applied/transferred to other countries in CMLV and SAARC through further adaptation and localisation in which the specialists from IGNOU-India can help/train teachers and others in identification of hard spots in school subject areas, develop new project proposals, develop interactive multimedia content and CD-ROMs in different school subject areas, develop teacher training projects on IT, and for implementation, monitoring, evaluation and research. PAN may facilitate this process with active involvement of SACODIL (south asia consortium of heads of distance earning institutions) of which IGNOU Vice Chancellor is currently the chairperson.

Prof. Santosh Panda,
15/June/04