Self introductions
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   CIDI = Inter-American Council for Integral Development
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   UNESCO = United Nations Educational, Scientific, and Cultural Organization

*Jordan*: Consortia of universities and companies from Canada to Argentina, 84 institutions (CIDI?).

Science and technology: 4 problems in OAS countries
> lack of information
> human resources
> availability of technology: lacking
> lack of expertise in addressing critical mass problems

4 initiatives came out of these problems:
1. LibLink = digital libraries, largest information exchange in Latin America (19)
   [see http://www.istec.org/liblink.htm]
2. Advanced continuing education, uses satellite ATI (headquartered in Spain), developing Internet courses
   [see http://www.istec.org/ace.htm]
3. Research and development labs—there are 47 throughout the region supported by companies
   [see http://www.istec.org/rnd.html]
4. Awareness campaigns: create policy at government level
   [see http://www.istec.org/loslib.html?]
Paldao: Here to suggest 2-3 actions
Ready to joint the NDLTD and submit official letter
OAS interior international council sponsors 150 projects in region with average budget of
$40,000,000/biennium; with UNMexico sponsoring activities
He/OAS wants to expand NDLTD activities and establish a Spanish version in their region,
consolidate and sponsor digital library

Paldao presented 10 points of action [handout in Spanish] Paldao and Jordan say they are ready to move
on each of these items.
1. Sponsor will publish bilingual publications about the state of the art in digital library
2. Technical collection of monographs; ready to publish bilingual paper about digital libraries for
free distribution
digital library initiative to get
4. Is sponsoring a workshop with New Mexico, next Costa Rica, Caribbean, Indian countries, South
American
5. Co-author works about digital libraries
6. Identify
7. Inventory of capabilities
8. Organize model or prototype maintain permanent link from OAS homepage about digital libraries
9. Read to sponsor and collaborate with other regions or national institutions e.g., IDB, to work
together for main objective
10. Ready to offer internship in an institution in US or regional professional institution re digital
libraries

Paldao is ready to move on each of these initiatives. Can offer connectivity and technology
Kane: There are bilingual activities going on in metadata that could be expanded
Jordan: Intellectual property is a problem in Latin America, previous work in programmatic translations
stop because of these problems
Guédon: 4-way translations rather than an English hub: English, Spanish, Portuguese, French; wider
vision would be a better approach to the problem. Cielo project

Paldao: That is one of many, many projects
Gluch: OAS promotes technical cooperation among member states. They have received special
contribution from US government: research, training, development of enetworks, and promotion of
participation of private sector—trust for the Americas is legal framework from grants to carry out
technical cooperation projects. Enetworks--Palado is in charge. Research –Gluch coordinates. To be
used by policy makers in emerging fields—advance cooperation among institutions (private, NGOs
(non-governmental organizations), academic). Training supported by partnerships.
Mechanics: Requires at least 3 institutions from 3 different countries from 2 different subregions.
North American is a subregion; Caribbean, South America; Andean countries form a subregion.
OAS provides seed money, up to 1/3 of the total cost of project; 2/3 from participating
institutions. One institution may be the leader/coordinator that presents the proposal to the OAS to
carryout research related to inter-American cooperation.

Fox: An example would be Joan Dalton’s travel re publishers and writing
Gluch: No, not for the research side of funding. Individual should approach institutions for a result that
will produce methodology that can be used by others.

Fox: Profit or non-profit?
Gluch: It doesn’t matter
Fox: pointed out the possible collaborators at the table: UMI and OCLC; UMontreal and National Library
of Canada, CRL and CNI.

Gluch: They would need to include country representatives from South America

NDLTD Steering Committee: Sept. 24, 1999
Fox: Perhaps university presses from different hemispheres

Tawfik: There are so many projects. We need to use the Internet to share this information about these activities prior to arriving at these [NDLTD Steering Committee] meetings. This should be a task of the NDLTD. Let’s get beyond the news to how to take actions, then the meetings can result in actions.

Eaton: Perhaps UNESCO and OAS could support such an activity.

Bloss: Perhaps this suggestion should also be carried to Monday’s ETD meeting in Paris. Let’s get an intersection of multiple groups rather than initiate parallel activities.

Tawfik: You should receive news and publish on existing NDLTD web site. Don’t create a new site.

Balatti: But we need an infrastructure to maintain the appropriate level of information to be shared. There are discussion within regions, for example, that then could be shared to larger group.

Fox: Language is a problem, and we need to address translations in a coordinated way.

Tawfik: Yes, but to use what is already in place will get things started.

Lippincott: Paldao has presented a well structured and ambitious set of initiatives. Many relate to the NDLTD, but some do not. Let’s focus on those that have the most direct connection to NDLTD.

Fox: Let’s summarize and group like things

Meetings: Costa Rica in December and 3 more next year. Details of those meetings should be diverse and comprehensive; opportunities for exposure to different communities. Also services to be rendered (e.g., standards, cataloging, preservation, etc.) and used to broaden meetings.

González: Caribbean and Costa Rica are set dates, but others are not.

Lippincott: Who will the participants be?

González: Librarians and researchers, primarily. Computing specialists—2 from each country.

Fox: Send to him or to whole list to share.

Fox: Publications, books, and newsletters, web sites, etc. to share information

Lippincott: re bilingual publications on digital libraries: she assumed it would be an ejournal. D-Lib is the premiere journal in this field and is published by an institution that does a lot of research. Work with CNRI to transform it to a bilingual publication.

Fox: Translate D-Lib articles?

Lippincott: Yes, and encourage contributions from Latin American countries, etc.

Guédon: Will need to modify the editorial board to avoid America-centric focus.

Bernardo: How would translations be organized?

Guédon: Use free source code model as Linux was translated to many languages.

Fox: I’m on D-Lib advisory board (so is Clifford Lynch, Stu Weibel)

Tawfik: English, French, Russian, Arabic, Chinese, Spanish: Write articles more simply, direct way. Translators will happen more quickly. There are some programmatic translators that are quite good if not perfect.

Guédon: Let’s aim for usability of the text, rather than getting stuck trying to produce the perfect translation. Changing paradigms, e.g., publishing.

Tawfik: Most mistakes are with terminology (jargon?)

González: There are various monographs distributed in Latin American and they have contacts in universities. They are receiving their books. Initiative #2 was to have a publication about digital libraries to distribute throughout Latin America and to promote digital libraries.

Fox: Packet review [see http://www.ndltd.org/ndltd-sc/990924/index.htm]

UPS= Universal Preprint Service (includes NDLTD)

PubMed Central
Guédon: (INet 2000 in Japan, Varmus declined to go)

French ETD publishing: Francofile fund began in 1997 with 2 universities + African, UMontréal, ULyon2: techniques and choices begun in Montreal adapted by ULyon. ETDs project arose from publishing ejournals. UMontréal of Montreal's solutions for ejournals to treat print and electronic sides of publishing was unified to culminate in a final product. Favored durability of the documents. From authors work, to SGML and/or XML to presentation formats, including paper.

Strengths: 2 universities have demonstrated that word processing documents with style sheets manipulated using OmniMARC to DTD and then translate to HTML and PDF without too many difficulties. They wanted to teach their students to use style sheets in their word processors. 1/2 day training for doctoral students.

Snags: DTD was good but not universally acceptable, standard and acceptable but oriented to humanities and social societies (form of TEI lite). 2nd snag: In some sciences, math and physics they use TeX and LaTeX and moving to XML difficult. Movement to HTML is easy but not stable enough or robust enough. NT a good solution yet. Implementation of MathML through W3C will eventually solve it. For the moment, let’s just use TeX when necessary but otherwise use XML.

20-30 ETDs from each university from UMontréal and ULyon2 using the above strategies. Training for African university and plans for U of Chile training also.

Issues: unusual situations in North America. Author is not the owner of the thesis according to some French universities, e.g., Paris, due to financing from a company that supports commercial product.

What is the status of an ETD in other countries? Whose permission is needed? Author, advisor, department chair, president?

Second level is: How do we publish? PDF? XML? PostScript? How are we going to build across countries and across disciplinary archives? How are we going to build search engines? How are we going to create access at the richest level. [Etymology of text is weaving: Hypertext is weaving text together.] Do we need to define DTDs, allow free software so epress can become accessible in poor countries. IF there are preferred channels to organize various projects: search engines, hypertextual structures, etc.

PubMed Central: notion of the basic units that circulate has changed from print based. The bundling techniques are changing radically, by commercial publishers as well as others: Elsevier, Los Almos, NIH. The collection/archives, not the journals, is becoming central and gain added value there. Validation of the text is coming after it is in the archives and then gets the journals imprint. Specialty of text comes from a validating archive. Ginsburg has helped to make this happen in the Loa Almos pre-print archive—through use of archive comes validation. PubMed is building on this: quick availability of text followed by journals selecting articles for their publications—enhance careers, bestow authority. Scientists are not delayed in getting research independent of “official” publication. Varmus and NIH are trying to focus our attention on central fact that archives comes first. Communication works for scientific community, and journal publishing continues to work as it has but separately from long term, and immediate value. With ETDs we may have potential for model archive from which publishers would draw. Promotes visibility and quality of work throughout the world, especially if cooperation comes from collaboration. [Castelle—find this author’s work]

Eaton: Case Western Reserve University chemistry faculty member’s comments—people should not read ETDs because they aren’t dependable; read only published articles.

Guédon: Theses are more rigorously defended than journal articles are reviewed!

Eaton: Stylesheet question—Do these limit creativity?

Guédon: Students are basically lazy and don’t want to go so far. Goes against trying to get something easily codable. In the future, new software will allow enhancements.

Schirmbacher: Hamburg University approach is very similar to what Montreal is doing, and uses VT DTD. Will students really use stylesheets? Is it the right way for the future?

Guédon: Still trying to get training sessions going. As you introduce graduate students to ETDs, offer courses to spread the word and keep stylesheets available. Little by little it will become the normal
way to handle the word processor. He hopes that in next few years that secondary schools will teach students to write with word processors. Primary students will learn to tag with SGML.

Savage: 55,000 documents; less that 5% in eformat. The document that they envision is a paper document.

Schirmbacher: Long time archive—what is the basis? PDF? What will work best? DTDs.

Dobratz: Solving SGML problem gets you around the DTD problem. Get the different style DTDs together. Perhaps with a subject orientation; a core of tags that work across subjects.

Balatti: Coordinate merging the old and the new. Issues, e.g., copyright and plagiarism in the dissertation. Exciting scholarship but end result is plagiarism. Collaboration to solve problems like this. Monitor, investigate, research solutions in other areas and build on that, but don’t reinvent.

Guédon: Moral rights vs. the commercial. Text is the authors and is always attributed. Commercial aspects are linked but not inseparable. Preserve the moral rights of the authors except for those who can also publish for commercial gain. This is really a different product that has been rewritten.

Lippincott: One of the issues is the lack of interest or understanding in faculty advisors and what they allow students to put in their dissertations, e.g., musical pieces embedded without permission. This is a difference in ETDs that wasn’t possible with print. Question for this group is what is the institutional responsibility or national authority if we put this on the web? Provider is responsible for the infringement.

Savage: 15% of dissertations UMI receives have previously copyrighted materials in them: standardized text, photographs, chapters of books, photocopies of journal articles—organizations should teach how to be a researcher and publishing scholar.

Balatti: ETD of several collected articles—what will we do about this?

Fox: National library’s situation can provide examples of what is right and what is wrong.

Savage: Kenny Crews wrote a book like this that UMI published re copyright, US and international. New version will be on the web.

Tawfik: We are rediscovering the main points and issues. We need a more structured committee. We need subgroups to address these very serious problems: moving from one format to another, copyright, translations, financing membership, etc. From this meeting we could have a new structure for the steering committee. Each subgroup representative will report to the whole group before the meeting. We will then be in a position to take more serious steps to solve these problems.

Guédon: Institution is not incompetent, but due to the nature of the ETD and their being published. The problem is outside the committee and the public version of the work. Separate parts of the work and restrict access to some if full release is not possible. Be careful which phase of the work you are working with.

Savage: TD is part of the training of a future scholar who should be taught about copyright and copyright should be part of that document.

Guédon: Doesn’t agree that it needs to be part of the final product. Respect for intellectual property of others.

Bloss: This is not a standard thing that is taught.

Fox: NDLTD is a teaching activity, and reflects the lack of systematic training in intellectual property at universities.

Schirmbacher: Report on German ETD activities.

Pro: every graduate student is obliged to publish TD and German national library must collect, including electronic versions.

Con: constraint to publish eversion is decided by each department within the university. 10-15% fulfill obligation. Students must submit 40-180 paper copies to university library. Heavy financial burden. Alternate is electronic version of the thesis.

Pro: More and more library of universities and departments allow ETDs

Con: there is not homogeneous process to store and provide access—findability.
There are 5-6 different projects in Germany; Dissertation Online is just one of them. See packet information page 119; will be linked from NDLTD web. IUK initiative spring 1988-March 1999. Funds from D of G emphasize library and computing center: March 1999-March 2000 3,000,000 Euros. 6 parts: metadata, retrieval, formats, multimedia chemistry, support for students and graduates for ETDs, libraries. (See Susanne’s presentation for details at http:// ) Very similar approach to what Guédon described this morning.

Need an organization to continue the work and need some tools for all universities to use the result of the project. Needs support of service institutions like libraries and computing centers. Formulate procedures and tools—will provide to all universities who want to participate. University must name 2 people who will collaborate with the project: librarians and graduate students, departments’ rules for archiving, researching, edocuments. Not possible to have a central server at the Deutsche Bibliotek. Wants a close connection to NDLTD: DTD, multilingual searching are common interests.

**Dobratz:** Digital Dissertations Project at Hamburg University.

Addressed problem from a librarians point of view. Decided on SGML approach in 1997, will be funded ‘til Aug. 2000. Will develop tools to prepare ETDs and common word processing systems. Establish workflow within university library or other unit to convert into a structure like MARC. Difficult, so thinking how to solve problem in a different way, because library is not able to continue conversion after funding ends.

Another issue is how to secure intellectual property of the documents on a legal basis. In German there is a very new digital signature and digital time stamp on electronic documents. Now trying to establish this workflow.

Trying to share information about their project with other universities but difficult because they are focussed on PDF.

Involvement of learned societies: Students are not able to use word processors properly, to use full functionality of stylesheets. So they set up to support through courses to learn how to write theses. Wants to have courses and packages ready for other universities to use.

**Fox:** Partnerships among professional societies may fund this kind of training. NSF will probably fund a 3-year project to continue NDLTD activities with German project. NSF is interested in bilateral activities that support research.

**Bloss:** Center for Research Libraries:

It is a library consortium and a library, a membership organization of large academic research libraries in the US and some from Canada. 10 years old. Not build multiple storage facilities, share one. Focused on foreign doctoral dissertations, i.e., not US or Canada, especially western (some eastern) Europe, South America, Latin America. 1800 through current works. Collections built through exchange agreements. 750,000 dissertations. In early 1950s when collection started, decision was made to NOT catalog due to inclusiveness of collection. Now providing bibliographic access to newly received works. Members are aware of the gem CRL has that is hidden. Are members willing to support better bibliographic control?

Do NDLTD members have links CRL can use. CRL is beginning to get dissertations in CD-ROM. Is copyright an issues? Archiving? What is the role of CRL if dissertations are available electronically? Old problems and bridging to the future. Looking at collaboration with OCLC and NDLTD.

Does CRL want more involvement from international groups: providing more materials and more people to use the materials? Looking largely at users in US. ILL patterns are changing radically, no longer just a library for libraries. Users want to get materials directly from holding library. CRL has been experimenting with direct user access. CRL charges nonmembers to use their materials, but there is access available internationally and nonmembers. CRL wants to be forward looking and how technology is changing how they do business.
Fox: Possibilities: In Germany as more members get involved and organized online catalogs to point to ETDs, it might also be possible to point to old works available through CRL. Is cataloging available at dispersed institutions that could be accumulated by CRL.

Bloss: There are published indexes of the dispersed holdings available centrally through CRL.

Hickey: 15-20% of OCLC database is not English.

Bloss: They have sampled international bibliographic availability. Issue is still resources: time and money.

Kane: International works: scientific papers, National Library of Mexico agreement is coming to fruition. Egypt, eastern European countries, also. Probably NAL doesn’t get dissertations, relies on UMI. Rhodes project, Scout project also has free algorithms. Thesauri and metadata is being revisited due to developments of XML.

Balatti: Bibliographic control: what scope is CRL looking for?


Hickey: CORC project is trying to let people who aren’t hard core catalogers still describe materials.

FAST: Faceted access to subject terms. A small, but helpful step.

Bloss: Language is still a question. Familiarity with staff in language of work—it is still difficult. Do you want an English subject heading for a German work. Yes, but other language also.

Hickey: Making steps in multilingual

Balatti: Scorpion—documents cataloged with Dewey. 90% accuracy. How could we apply to current works, use translations available for Dewey.

Hickey: Dewey is a good place to work on translations. Scorpian works with HTML, not PDF, and less than 90% accuracy.

Tawfik: UNESCO report: There is a meeting in Paris next Monday-Tuesday. [see http://www.unesco.org/webworld/etd/]

One of the main concerns is sharing of knowledge, information. The Internet could be used to disseminate scientific knowledge. Sectors for education, culture, science, natural science, social science, communications—information and informatics. The later was established in 1990. It is a time to launch an international project on electronic dissemination of theses and dissertations. Montreal, Chile universities, this meeting is directly to launch an international project. but the main topics of the Paris meeting are:

1. identify ETD projects worldwide
2. examine needs for international action
3. assist needs in area of standards, training
4. identify developing countries
5. identify non-governmental organizations
6. discuss creation of web site to facilitate exchange of information

Enormous potential among 187 member states, more than 70 field offices, more than 3300 centers. UNESCO is not a financing agency. Budget is about $430,000,000 biennium—less than any US medium size university. It is working as a catalyst, coordinator, urging coordination. It is an umbrella and coordinator for networks. Raises funds also.

Fox: Page 66 of packet is beginning of materials re Paris meeting.

Fox document for Paris:

Topics: What is the NDLTD? Multiple hats, objectives—from web page. Began as a dissemination activity, sharing experiences, we want to continue and snowball these activities and shorten the learning process. Intellectual property issues and concerns: an advocacy group to help students understand publishing and working with publishers. Data formats—broad consensus for SGML/XML but
also a rendered version (e.g., PDF). What is the technology that will make this work? Which are feasible? Which are doable? A balancing act. Scalability is also an important consideration as is usability.

Cataloging, workflow. What works needs to be shared so that NDLTD activities can broaden. Emphasizes that NDLTD is already an international initiative that UNESCO should support. Actions: financing needed—training, meetings, fund technical problems. Promising solutions are eminent; OAS is an example.

**Tawfik:**

UNESCO director general approved membership. Distribute list of members rather than web address. Include something about the structure of the NDLTD. More detail about how tackling problems. Show that there are real students, real work, real answers to some questions. It is important for people to know that there is a structure. Let them know who are the contacts.

**Lunch break**

**Fox:** Continued review of the packet: re ETDs 2000 International Symposium and whether it should the NDLTD Advisory Committee meet at the Florida Conference? Consensus: Yes.

**McMillan:** topics listed in the program are not meant to be limiting. Submit anything that seems appropriate: training students and faculty, archiving and preservation, intellectual property.

**Guédon** recommended CARL: Canadian Council of Graduate School

**Lippincott** said she’d provide the mailing list for CNI, ARL, EDUCAUSE (send her an email)

Ask **Schirrmacher** for German mailing list

**Bloss:** post on IFLAnet

**McMillan:** request for outstanding lead keynote speaker

**Guédon:** Perhaps model on W3C roving locations for annual conference, lots of issues addressed simultaneously. ETDs will also be a model for publishing.

**Eaton:** NDLTD is initiating the digital library. Afraid to focus too much on international aspect and leave behind the US graduate deans.

**Balatti:** Will international effort keep the US funding agencies from supporting NDLTD?

**Fox:** No, research projects and educational efforts are supported on merit.

**Guédon:** Perhaps Carnegie Mellon would support. [Lippincott has a connection there.]

**Fox:** back to the packet review

**FIPSE:** we’re still looking for more evaluation data—surveying members for the final grant report..

**Guédon:** Let’s pay real attention to SGML. Work towards a coherent strategy to accomplish

**Hickey:** University of Illinois is making progress with XML for journals.

**Guédon:** W3C work is general and NDLTD is much more specific. An excellent opportunity to collaborate.

**Fox:** FIPSE report should be inclusive and include UMI. Perhaps CRL also.

**Eaton:** VT ETD Approval Form points of interest:

Copyright statement that students say they have obtained permission when necessary

Time issue—contacting students or having them contact the university to retain access restrictions

Members of the committee who approved the ETD and those who did not

**Fox:** ETD Sourcebook—will go to publisher at end of the year. Added sections from Germany and Australia.

**Fox:** See McMillan's paper prepared for the international Grey Literature conference for some recent statistics and survey responses [http://scholar.lib.vt.edu/staff/gailmac/presentations/GL99ETDslides.pdf]

Fox: Review of slides from Susanne’s presentation. Pointed out DTD [document type definition] and differences between countries that need to be brought together. Germans involved chemists in their project and, therefore, got their buy-in.

Fox: Life after FIPSE: What is our vision, 5 years, 10 years? He asked each meeting attendee to speak to this topic.

Savage: Will still be at the table talking about educational issues, extending authors ability to publish in digital format. Faculty are conservative, holding students back. UMI won’t be receiving 50% in digital format, maybe receiving 10-15% will be ETDs. “Easier to move a graveyard than a graduate school.” We’ll focus on students and would-be professional scholars and researchers, how to do the work, organize it, conceive of it as something other than paper.

Hickey: Things will change a lot in 5 years and how much is available on the web. We may still be trying to make XML work but there is a lot of prose there as there is for SGML. Metadata problems should be just about all solved—library and publisher issues. Multiple places for this material available.

Kane: We will be further ahead that Savage suggests. SGML logger head made good progress once it moved out of academia. “Save as” SGML is coming. More will be in eformats because people will start thinking in different ways—beyond paper. In 10 years a paper dissertation will not be robust enough to express their thoughts, research, scholarship. Conceptually topic maps (.svg) Our children will “need” to have multimedia to express their ideas, paper will not do it adequately. Many of the issues are centered on standards and agreements. Organizations like this one may not need to exist.

Eaton: Points influencing our position
  > Harold Varmus and some British publishers for making preprints more widely available. These will change peoples attitudes about theses and dissertations. Cultural changes will make it easier to release theses and dissertations.
  > Technology: SGML and XML coming from a knowledge base like a word processor (as PDF does), then it will be acceptable.
  > Preservation issues: Not a worry
  > Entrepreneurial attitudes of faculty will still hinder the availability of ETDs.
  > Worldwide digital libraries will be inhibited by nationalism

Lippincott:
11. EPublishing is an integral part of the research process. It won’t touch every discipline in 5 years or acceptance in every discipline will not be in place. But wholesale acceptance in some fields will provide the push. Faculty will increasingly see that they have a role in preparing their students to publish electronically.
12. Varmus’s initiative is the seed change we have been waiting for. EPublishing in the journal will be the catalyst for changes in copyright
13. For long-term preservation and access there will be several good alternatives, not just one solutions.

González and Barrantes: Still dealing with the problems of having a computer available in Latin America. Hopefully in 5-10 years this will be different. Many projects: workshops, training and internship/fellowships will contribute to change.
Tawfik: We’ll be in the same place but discussing different problems. Digital is not the problem. Translation is not just ETD problem. Advancements of technology will solve many of our problems. The problem of standards is one example of what technology will solve. In 10 years there will be no theses and dissertations to deal with; this is an old fashioned system to be replaced by an other system. We should think about organization and how we will deal with making information available, including available to countries that don’t have easy Internet access.

Balatti: Shares Lippincott’s vision of differences in subject disciplines, but also agrees with what Savage said about some areas not changing at all. Archiving and communication—which comes first and how will it be handled (as Guédon said). How will libraries provide access to this and other materials?

Bloss: Cynical view? Look at technology for hope, people are not necessarily being helpful. When we retire a change will take place—print will not be so important. Therefore, more technology and electronic means will get priorities. Like the 1991 revolution in Russia—everyone was excited about democracy coming. When it didn’t happen, it was a surprise. Is the technology also a false promise of change. Evolution, not immediate change. Intellectual property will still be with us. Archiving and preservation will have to be coped with. Because of the technology we won’t be so troubled by cross-platform issues.

Dobratz: In 5yrs, there will still be educational issues. She cares less about technology, and more about the attitudes of people towards change.

Schirmbacher: We will have tools for SGML and XML. Another issue: long time archive—access will be easier and more difficult. There will be more PCs and higher speed connections, but more difficult to find anything in our archives. How will we manage the knowledge? It is our task to discuss our responsibility for the future, to teach gives us the chance. Establish subgroups—structure of documents is very important to give us a chance for access in the future.

McMillan: Libraries will have the same goals as they do today: providing access to information and services. We will continue to partner with external (to the library) groups to develop new resources and services. So, in 5-10 years I will be sitting at a similar table in a similar space and I'm hopeful that my colleagues then will have the same good intentions, thoughtful insights, and clarity of vision to help the library implement new resources and services.

Guédon: Futurologist: technical determinism. Perspectives: Steer our course to reach towards a goal. Goals will evolve. 5-10 years push for a different social dynamics. Accessible from everywhere, really make knowledge flow with as little friction as possible. Dream about creating a free electronic press, Unix spirit: small little programs that do something well and can be warped into other services. Pyramid models. We are examples of good preservation—human DNA, we are the same but different after several million years. Therefore, multiply and reproduce our texts and they will survive for a very long time. A question of dynamics, and vision. Do not make things proprietary (the market has its place), but in the area of ETDs, there are other dynamics that are more important. We can progress a lot in 5 years if we follow the Lynix-type movement. Free press, easy access, shared ETDs will never die and political economy of knowledge will.

Fox: His children will be the authors of ETDs. Today’s children have computers and are comfortable using them. They will not think of not using computers. ETDs will be produced in over half the countries. There will be international searching in multiple languages. The world will be saving lots of money as a result of collaborating. More visualization, more simulation, etc. in more than 20% of the ETDs in 5 years. The effect of the technology and the change will be that there will be more serious interest in creating scholars at universities. There will be strong tools to access information. Vocabulary control for agriculture and other areas and we’ll have comprehensive citation linking, powerful search tools.
Graduate students will start their careers with technology that will track them throughout their careers. Distance education will be broader, larger, more international and digital libraries will play an important role. Digital library will be a major industry. We won’t be NDLTD but we may be NUDL. ETDs will evolve into the broader issues of training students, sharing information, etc. making use of the technologies.

**Tawfik:** International activities must be even broader. Where is Africa at our table? Where is Asia? We must be pragmatic and not fail to do something about this issue. And, we are all from science (including library science) and technology. In the social sciences and humanities, change is very slow. We should differentiate the two areas. We must deal with intellectual property also.

**Bill:** [Description of his humanist background.] There is a business for UMI internationally in 5 years. UMI is a self sustaining publishing model. Up front, per title publishing fee. Creates a microfilm, paper, electronically. 1.6 million citations in Dissertation Abstracts. 150,000 dissertations and masters theses available electronically now. King Fahad University available from UMI, Scandinavian one also. [Description of ProQuest services.] New service: UMI will be giving royalties to all authors every time a dissertation is requested. Distributed Aug. 1999 progress report for ProQuest Digital Dissertations. E-Beam camera will turn digital to microfilm (previously only available at CIA and ?).

**Fox:** This group has discussed UMI policies and services and effected their work.

**Paldao:** Limitations of language cause some material to be essentially lost. The real challenge is how do we put the information together for the rest of the world. Automatic conversion was on his mind from earlier conversations this morning. And, how will it incorporate different kinds of institution.

**Fox:** A specific issue is developing world and how this steering committee can be more effective. This is an important initiative and an important group, but we have shifted from where we were three years ago. New people need to be involved and issues coordinated. How will we address this in the next hour along with developing countries?

**Guédon:** SGML subcommittee

**Fox:** Metadata topic at Dublin Core meeting. Use standards and preservation committee—split. Add Guédon to standards committee, Schirmacher, Hickey, Dobratz, W3C representative. There is a standing invitation from D-Lib to add the NDLTD under their 'umbrella.'

**Tawfik:** We need to add African and Asian representation, etc. Look to regional societies, e.g., Arab federation of universities; also an African one. He is responsible for the Alexandrian library revitalization—a digital library, the first in the African, Arab, and perhaps eastern world. It is a problem of communication.

**Guédon:** There are international organizations that could be contacted to expand membership as Tawfik suggests.

**Fox:** Maybe it is time for NDLTD to shift into a new phase with different leadership to improve on international focus. This group is made up of people who wanted to be active.

**Lippincott:** This group can provide a structured set of program materials so that when a country is ready to participate, it can. The second area is tied closely to why CNI got involved—universities produce this body of scholarly information that was fairly unencumbered by intellectual property issues. Thought students would be willing to share in the networked environment and become electronic publishers. From
the countries that already belong, they provide free access to the documents so developing countries that are otherwise cut off from scholarly literature due to expense, can access ETDs. The other part, the content side, people in developing countries will have readers from the international Internet environment. It is not the role of this group to bring along the developing countries because we aren’t a funding source. Governments and other sources have to do that, this group can recognize the problem, but we should focus our energies on issues closer to our expertise.

*Guédon:* would like those who are interested, to continue to keep sensitivities so that we will chose solutions that will work in multiple languages, at different economic levels. Stay attentive to these issues.

*Eaton:* Paldao wants to see Spanish and Portuguese made available in English also to share information, as well as translating English works into Latin languages.

*Guédon:* Yes, we must realize that there is knowledge hidden in languages we also don’t have access to.

*Tawfik:* There is no common language. Transfer of knowledge—ETD

- Transfer from South to North: 3 issues: language, acknowledging that knowledge transfer should move across borders in both directions; are ETDs really available for free/without charge
- Transfer from North to South (really, from developed to underdeveloped countries): Internet connectivity and access; lack of knowledge--education, training; funding—how to get people from business interested—show need. Financing is not a difficult problem if the need is shown by the appropriate entity (the one who has the real need) from national governments, internationally, other sources. Need brainstorming by key people who represent countries and organizations. Then there will be a real step forward. NDLTD must prepare a package without trying to comb through a huge package of information.

*Paldao:* Role of NDLTD—OAS is a financial institution that has learned after 50 years how not to do things through mistakes. The real problem is not money for programs or equipment, the real challenge is this region is the different kinds of people to put together; intercommunication is the real challenge. OAS has been supporting dissertation research that is not available due to language limitations. These could be a contribution to the NDLTD effort.

- Set a goal to get participation of 20-40 institutions that will make a contribution.
- Training should be another focus, with regional workshops.
- Give minimum equipment
- Support a prototype at an institution
- Translate generosity into dynamic system so that others also have ownership

Fox wrote topics on white board and members volunteered to work on these topics:
- glossy brochure: Guédon (Balatti will participate if he receives approval)
- packaged system for ETDs: McMillan, Fox, ISTEC, Schirmbacher
- XML, future publishing: Guédon, Schirmbacher
- Metadata, compatibility between MARC etc.: Bloss, Savage (Balatti will participate if he receives approval)
- Tawfik: research systems, e.g., machine translations: Fox research proposals
- Learned societies--get the right people involved to address issues up front
- Digital library technology--share it
- Preservation--do something about it (UMI? National library?)
- Bloss: This could kill us.
- Training
- Intellectual property rights
Schirmbacher: Many of these items are developing and are not ready to distribute.

Bloss: Steering Committee should be liaisons to various meetings. Active in IFLA for 17 years—discussed program on ETDs at two committee meetings. Put together a program for university library systems and acquisitions and collection development sections to get international visibility that will attract international membership. Take the NDLTD to other groups.

Balatti: Put together a package so that those that can get funding will have something to show.

Fox: Where’s the funding?

McMillan: Universities that have ETD projects support our efforts behind the scenes, not with visible funding.

Eaton: Mentioned OhioLink statewide ETD archiving activities he and McMillan learned about while at Case Western Reserve University earlier this week.

Paldao: Source of finances, some OAS activities they are ready to finance at 1/3 if it is a publication as a part of a digital library effort. Translations, distribution, all of these activities require some compromise (Microsoft, Intel, will cover some costs for workshop participation.) He will put his presentation and prepare a matrix. Consensus of members: Next NDLTD steering committee meeting should meet in March at Florida ETDs 2000 conference. [see http://etd.eng.usf.edu/Conference/]

Paldao: Offers to host a meeting in Latin America, will cover hotel and meals for steering committee.

Eaton: If we supply material, Paldao will get it printed. and contact countries for distribution.

Paldao: Can cover distribution to Latin American countries.


Gail McMillan's notes (updated Oct. 14, 1999)