CONFERENCE PAPER

Maximizing Theological Resources: The Role of New Technologies and the Internet for Theological Library Cooperation

by Al Hurd

Part I: The Importance of Standards for Cooperation

My presentation will be in two parts with the one this morning pertaining to general issues for library co-operation; and the one this afternoon focusing on similar material but with specific examples and references to co-operative efforts that have set standards and laid the groundwork for library co-operation using the Internet as a technological opportunity to develop what I will characterize as a "Religions and Theologies Global Information Village". It is a "village" in which any user, with an interest in religion and theology (with Internet access a given), can avail themselves of information in religion and the related fields.

Co-operation means many things to the library community. In the twentieth century it has focused on cataloguing standards, shared cataloguing, and the building of national union catalogues that reflect the holdings of the participating libraries within a country. Cooperation has also meant the sharing of resources through what is becoming an arcane method, interlibrary loan. This process has been enhanced by online bibliographic databases, such as OCLC, RLIN, WLN, Utlas in the United States and Canada, and locally for you, the Australian Bibliographic Network (ABN). Resource sharing has also been enhanced by technologies such as photocopying, rapid overnight (if the patron is willing to pay) delivery, and more recently by scanning and file transferring via the Internet, and fax. All of these technologies and networks have converged in various ways to contribute to fulfilling the needs of patrons, and I might add, raising their levels of expectation for what libraries can do, or can provide.

Libraries have also fostered the development of collections through local, state, and national co-operation. In the US the Farmington plan is well known for focusing the collection development policies of many of our major research libraries, from the late 1940s through the 1970s. Yesterday you were urged to participate in the Distributed National Collection development conspectus program under the auspices of the Australian National Library. We also have seen other kinds of co-operative efforts in the United States, such as the Center for Research Libraries (Chicago, Illinois) that acts as a co-operative compact storage library for many contributing libraries. Some of these facilities are now shifting their programs toward preservation centers as they become filled to capacity and their retrospective content becomes threatened by the brittle book syndrome. In the United States major co-operative preservation programs developed in the 1980s. The Research Libraries Group (RLG) and the ATLA co-operative preservation programs are well known for their systematic approach to preserving nineteenth and early twentieth century monographs, serials, and pamphlets in the areas of history, literature, art, archaeology, languages, and theology and religion.

Library co-operation among nations has been fostered by International Federation of Library Associations (IFLA), which has made important contributions to fostering such standards as the International Standard Bibliographic Description (ISBD). This in turn helped define the MARC record format, which is now the industry standard for the transfer of cataloguing records and is also used by ATLA as the transfer standard for its bibliographic data to OPACS. These standards enabled the development from the 1960s onward of many bibliographic utility networks, such as OCLC, RLIN, ABN, WLN, and Utlas that have transcended and carried libraries to new levels of resource sharing.

I could continue with more examples of what co-operation has been; you could from your knowledge and experience of theological librarianship and ANZTLA co-operative efforts add many more examples. What is evident from the examples I have given, and your own experience of co-operative efforts as an association of theological libraries and librarians, is that co-operation of most kinds, and especially during the past fifty years have contributed to maximizing resources for our end users. And, I would add, it has been driven by both the development of standards and prevailing technologies; without these resources sharing would have been moribund. What I think will continue to foster co-operation, as it has in the past, is the needs of our end

users. In re-engineering parlance, the customers, whose expectations will be increasingly driven by new technologies, will continue to define the services libraries provide. As we look ahead we are already anticipating users who no longer want printed materials. Let me qualify that a bit. That is, when searching end users want electronic information and text which they can select, review and then download to print, all from their own desk top. I believe it will be a very long time before the desire and convenience of holding a printed document in one's hand is replaced by a monitor's screen. These rising expectations of users will force us to think about new ways to co-operate. The Internet, which we have heard so much about with respect to its promise to answer many resource needs, can only be brought to a fulfilment of these needs through new co-operative efforts among libraries and library professionals. Because the Internet can link you "virtually" to another library or person, or many libraries and persons, and in real-time, it must be seen as the new vehicle for co-operation among libraries.

I want to emphasize again that over the last twenty-five years, the standards that became protocols for the development of bibliographic networks and for undertaking significant preservation programs have been the handmaidens of technologies. Since the 1980s the acceleration in the development of computers, like PCs or the UNIX boxes along with their respective software applications, have opened new vistas for librarians and users alike. These I predict will continue to redefine what libraries do and become well into the twentieth century.
We are all too well aware of the costs of acquiring the basic technologies and the electronic tools, such as databases on CD-ROM or Internet access. Finding the financial means to enter this brave new technological world will be difficult, especially as the generational-life of technologies continues to shorten. At this time there is a technological Darwinism going on in society as a whole and it reaches down into the microcosm of our institutions. As librarians we will need to learn how to adapt to these technological changes, or like many species in a short time, we will become extinct.

Internet access! How many of your libraries now have this? How many of you who do not now have Internet access, will have it within the next 18 months? How many of you cannot afford it, or have no means of acquiring it?

The Internet is the network of networks! It is now one of the most influential shapers of a world culture! Despite what we may personally think of the Internet, it is here to stay. I think it is a positive resource, but a bit unruly, brash, and undisciplined at this time. But it is also my view that the Internet is the place where theological libraries and librarians must begin to to explore and foster a new generation of co-operation among the libraries of the world. This co-operation will not be limited by geographic boundaries.

I am not sure yet what the nature of this new co-operation will be. Up to now there have been a number of collaborative efforts among groups of scholars, associations, learned societies, and institutions with similar interests and information needs. On the other hand, there is a strong layer of radical individualism on the Net that represents the spectrum of human nature; that is, it includes the good, the bad, and the ugly. What I have found very interesting in those who write about the Internet is the perception of it as a tool capable of fostering and building community.

Let me comment further on the notion of community in the context of the Internet. What I find exciting with respect to what is being said about the Internet fostering community, is that those writing about it refer to the historic message of Christianity and the church, as well as other major world religions, about the importance of community for building and sustaining human relations. One of my sources for this observation is Howard Rheingold's book, The Virtual Community: Homesteading on the Electronic Frontier.

Rheingold speaks at times with an almost religious fervour about how he has entered into new communities through a computing conferencing system that he calls the WELL (that is, the Whole Earth Lectronic Link). With respect to the dynamic of the WELL he observes that "the technology that makes virtual communities possible has the potential to bring enormous leverage to ordinary citizens at relatively little cost—intellectual leverage, social leverage, commercial leverage, and most important, political leverage. But the technology will not itself fulfil that potential; this latent technical power must be used intelligently and deliberately by an informed population" (pg. 4). Rheingold asserts, correctly I believe, at another point that "The experience" [of Computer mediated Communities, that is those using the Internet to communicate with one another] has

awakened whole groups of people to ". . . rediscover the power of co-operation, turning co-operation into a game, a way of life—a merger of knowledge, capital, social capital, and communion. The fact that we need computer networks to recapture the sense of co-operative spirit that so many people seemed to lose when we gained all this technology is a painful irony" (pg. 110). I would urge all of you to read Rheingold. He not only provides an excellent history of the development of the Internet, but he also casts the potential of Internet in a positive light—we need this view at this time because of the many frustrations and negative things that are said about what the Internet is and fosters.

So what can you do to foster global co-operation among theological libraries and librarians by using the Internet? My answer is similar to those you have heard from several other sources and voices during this conference.

If you want to "maximize your resources" you must find ways to connect to the Internet, where as Reingold observes, you will rediscover a new sense of the co-operative spirit and, I might add, a very diverse community. Once you are connected to the Internet here are some items for your consideration:

1. Develop a home page that describes your institution's mission and purpose. From that collection conspectus you were urged to develop by your colleague from the Australian National Library, you can advertise what kinds of collections you have to offer to those interested in theological education or to the general, public. You can also describe the services you provide to general users and researchers.

2. Add files of your serial holdings and bibliographic records of your collections linked to your home page on the Internet. This can be done using HTML mark up language, which enables you through your home page to leverage and augment your local resources to similar kinds at other locations throughout the Internet.

3. Beyond your local collections and services you have an important role in the development of the "Religions and Theologies Global Information Village," which I will have more to say about this afternoon. This "new community" will need to be built on a spirit of co-operation and resource sharing.

Thank you for this opportunity to comment on fostering new futures for co-operation among theological libraries through the use of the Internet.

Part:2 Leveraging Standards and Technologies for the Development of The Religions and Theologies Global Information Village on the Internet

I. Technological Foundations for Library Resources

This is the second part of my presentation to you. I want to acknowledge the contributions that John A. Bollier, ATLA's Director of Development, made to this part of the presentation. This presentation deals with the impact of technologies on our current discipline—theological librarianship.

Rip Van Winkle, in Washington Irving's eighteenth century fantasy, The Legend of Sleepy Hollow, slept for twenty years—right through the American Revolution! While out hunting, he lay down in the woods to take a nap, but when he woke up and returned to his little village on the Hudson River, he found that the world had passed him by. Everything had changed, the people, the houses, and even the flag, with the Stars and Stripes having replaced our common ancestor's Union Jack.

In the last quarter of this century another revolution—a technological revolution—has been changing the whole world, even more than the political revolution that changed Rip Van Winkle's village of Sleepy Hollow. It is also more significant than the recent political upheaval, "revolution" if you will, of the former Soviet Union as well as political and cultural upheavals elsewhere in the world. And if we wish to survive as

theological librarians and educators, it is important that we not sleep through this technological revolution as Rip did during the revolution of his day.

In this presentation I want first to identify some of the milestones marking the development of the information revolution in the last twenty-five years. These milestones represent the development of standards and new technologies, when taken together, become a major catalyst for library co-operation locally and worldwide. Second, I want to suggest to you some co-operative strategies ATLA has been working toward to improve global access to theological resources now and in the future. Third, I would like to share with you a model that I mentioned to you earlier in the day, which I have called until a better phrase can be turned, the Religions and Theologies Global Information Village. I believe there are many crucial issues facing all libraries. But how we respond to the technological challenges today will in large measure determine whether our institutions and the roles we play in them will be around tomorrow.

Libraries, including theological libraries, have long been interested in co-operation. No library ever has enough material to supply the needs of all its users. This is true for the great libraries, the National Libraries of Australia and New Zealand, the Library of Congress, the libraries of the Harvards and Yales, the Oxfords and Cambridges, as well as libraries of more modest scale. None ever has sufficient funds to acquire all the materials it needs or to catalogue all it acquires. In response to limited fiscal and collection resources libraries have long sought ways for sharing both their collections and their cataloguing. The most significant of these efforts have actually occurred within the career spans of many of us here today.

For example, the Anglo-American Cataloguing Rules (AACR) of 1967 resulted from early international efforts at standardization. The second edition, AACR2, appeared in 1978 and is still used today as the international standard for cataloguing. By using these protocols along with increased access to national bibliographic networks libraries have been able to share their cataloguing records and not do costly original cataloguing for every piece they acquire.

Concurrently, the International Federation of Library Associations and Institutions (IFLA) developed the International Standard Bibliographic Description (ISBD). And in 1966 Henriette Avram and others at the Library of Congress developed MARC, Machine-Readable Cataloguing, which has become the bibliographic Linqua Franca for sharing cataloguing records through computer networks.

With these standards and protocols in place, the way was then clear for the development of the bibliographic utilities. In North America, consonant with the spirit of free enterprise, not one, but four such vast networks developed and continue today, albeit with many permutations along the way.

The first was the Ohio College Library Center (OCLC), which was organized in 1967 and went online in 1971 to produce computer-generated catalogue cards. As well as providing shared cataloguing, in 1979 it offered a highly successful Interlibrary Loan subsystem. As its on-line services, products and membership rapidly expanded, it became a de facto national bibliographic utility. In recognition of its nationwide expansion, it deleted Ohio from its name in 1977 and became simply OCLC, Inc. In 1981 its name was changed again to its present name, Online Computer Library Center, Inc., while retaining its same acronym, OCLC.

In the meantime, there developed a whole array of some nineteen state or regional networks, such as NELINET, SOLINET, PALINET, which served as intermediaries for distributing OCLC's products and services to local libraries, large and small. Today OCLC, the largest of the bibliographic utilities, has some 20,000 participating libraries and a database of over 31 million records.

However, many large research libraries in the United States were not satisfied with OCLC because of its lack of quality control over the cataloguing records libraries submitted and because individual libraries did not have access and control over their own records. Thus, in 1974 four major research libraries, the New York Public Library, and the university libraries of Harvard, Yale and Columbia, formed a consortium called the Research Libraries Group (RLG). Harvard subsequently withdrew, but Stanford University in California soon joined. In fact, the automated bibliographic system that Stanford had earlier developed, with the acronym BALLOTS (Bibliographic Automation of Large Library Operations), was adopted by RLG and

given the new name, Research Library Information Network (RLIN). Subsequently, many of the major American university research libraries withdrew from OCLC and affiliated with RLIN, thus causing considerable hard-feelings and competition between the two utilities.

In addition to its RLIN network, RLG has three other major programs: co-operative collection management and development, resource sharing, and preservation. Of these three, resource sharing through Interlibrary Loan and the preservation microfilming of endangered materials have been highly successful. However, co-operative collection development for reducing expensive duplication by the use of the RLG Conspectus has not really taken hold. For in actual fact, large research libraries are willing to refrain from collecting only in areas they consider marginal to their own programs.

When RLG had severe budgetary problems in 1991, RLG and OCLC considered merging. But negotiations were not successful and the two continue as rival networks. However, agreement was reached for the loading of RLIN records into the OCLC database. As RLG has recently opened its membership beyond the large research library category, its membership has now jumped to 143 members.

The third American bibliographic utility is the Western Library Network, which began in 1967 as the Washington Library Network, but changed its name as it expanded throughout the Pacific Northwest of North America. Its online system for cataloguing and resource sharing has always emphasized a high level of bibliographic control. I suspect that you are more familiar with this Library network than I as WLN has licensed its system for use by the National Libraries of Australia, New Zealand and Singapore, as well as to universities in the United States.

The fourth North American system is, of course, Utlas, which began in 1971 as the University of Toronto Library Automation System. As it was widely adopted throughout Canada, it gradually separated from the University of Toronto until in 1985 it was sold to International Thomson Limited (ITL). Thomson retained the name Utlas, but not as an acronym because it was no longer a part of the University of Toronto. Utlas has expanded from Canada to the United States, Japan, China and Taiwan.

ATLA has had direct experience with three of these four bibliographic utilities since 1984, when ATLA began its Monograph Preservation Program. Since then ATLA has added records to OCLC for the 30,000 monographs and 1,800 serial titles it has filmed and catalogued. It has also submitted these same records for tapeloading into RLIN and Utlas.

However, ATLA first employed information technology in 1974 when it began using the Philosophers Index software for the computer production of the ATLA Religion Indexes. Subsequently, in 1989-1993, as part of its International Christian Literature Documentation Project, ATLA developed its own indexing software known as AIDE (Automated Indexing Data Entry). This software now enables ATLA staff to enter data easily, evaluate it, correct it, transfer it to other systems, provide for various output formats (print, digital, and electronic) and distribute it electronically to users in a fashion parallel to the MARC tagged record format. ATLA makes wide use of this software for the production of its indexing products and has offered it to its strategic partners both in the United States and abroad.

ATLA moved into CD-ROM technology in 1989 when the ATLA Religion Indexes first appeared in that format as produced through a contract with the H. W. Wilson Company. In 1990, 1991 and 1992 the H. W. Wilson Company produced three more annual editions of this CD-ROM. However, by 1993 ATLA had invested in the technology and staff required for producing the Religion Indexes on CD-ROM itself. With this new capability, ATLA has since brought out on CD-ROM the annual Religion Indexes in 1993, 1994 and beginning in 1995 2 updates annually. It has also produced new CD-ROM publications on CD-ROM including an annual Ethics Index, intended for business, medical, law and social sciences libraries; and, a Biblical Studies Index, intended for individual researchers and priced accordingly. The ATLA Religion Database, 1949– now consists of more than 820,000 records, and is also available for tapeloading directly into the Online Public Access Catalogues (OPACs) of large library systems.

Although ATLA continues to publish indexes in print format, it recently completed the technical and operational steps required for moving from the print-oriented to the electronically-oriented production of its

Religion Indexes. Since Gutenberg printed his first Bible in 1456, print has been the universal medium for scholarly communication. But now more and more libraries, and individuals, are demanding that information, whether it be the ATLA Religion Indexes or some other reference tool or text be in electronic formats. Therefore fewer and fewer users any longer want the large heavy printed volumes or sets of information that cannot be searched interactively rather than serially. In fact, ATLA's printing jobber has said that when our annual order for print copies of the Religion Indexes declines to 500, he is then going to change careers, because he knows that will be a sign that his days as a printer are numbered.

II. Future Co-operative Strategies for Theological Library Associations

What are ATLA's co-operative strategies to improve global access to theological resources now and in the future? On recommendation of ATLA's Advisory Committee on Technology and by action of its Board of Directors, ATLA has determined that it can best meet the challenges of the information revolution only in alliance with strategic partners both at home and abroad. With users demanding more and more information from all parts of the world and with the cost of technology escalating, ATLA believes that no one theological library association or religion indexing agency by itself can survive this revolution. And so during the past five years ATLA has developed a strategic plan to seek partnerships with other theological and religion indexing agencies both in the United States and throughout the world.

Currently ATLA's domestic partners are the Catholic Biblical Association, for producing an Old Testament Abstracts on CD-ROM, and the Catholic Library Association, for producing the Catholic Periodical and Literature Index on CD-ROM. Abroad ATLA is working with the University of South Africa in Pretoria for producing a CD-ROM of the South African Theological Bibliography.. In Latin America ATLA is working with ISEDET an evangelical institute for theological studies in Buenos Aires to assist in automating the production of the Bibliographic Teologica Comentada del área iberoamericana (BTC) and with the Biblical Seminary of Latin America in San José, Costa Rica for developing a Latin American Theological Information Network (LATIN).

ATLA is also in contract discussions with the Pontifical Biblical Institute in Rome for the electronic production and distribution of the Elenchus of Biblica. Moreover, ATLA is continuing its partnership discussion with the University of Tübingen Library for the distribution of the recently automated Zeitschrifteninhaltsdienst Theologie on CD-ROM and online.

In addition to these partners in Latin America, Europe, Africa and the United States, ATLA is in partnership discussions with other libraries, theological faculties, and producers of religion and theology databases in Rome, Basel, Warsaw, Budapest, Bratislava and Prague.

In ATLA's partnerships, the producers of the databases continue to own the copyright to their data, but they grant to ATLA the rights for producing and distributing their data on CD-ROM and online on the Internet. The major portion of royalties from the distribution of these materials in electronic formats will go to the database owners, with ATLA receiving a sufficient percentage to cover its costs. Thus, producers of indexing databases in religion/theology need not duplicate ATLA's investment in high cost technology and staff for the electronic distribution of their records, but may use ATLA as a vendor for this purpose.

In addition to adopting the CD-ROM technology, ATLA now is well along the way toward implementing in 1996 an Internet node for the online distribution of its database, as well as the databases of its partners.

Our interest in the Internet is both commercial, that is offering products and services for fees, as well as a free service for routing users with special and broad interests in religion to the "best of the best" on the Internet. Let me now turn to the third and final part of my presentation.

III. The Internet's Potential: New Models for Library Cooperation

The sources for this part of my presentation are twofold: (1) The Report of the ATLA Advisory Committee on Technology and the ATLA Internet Planning Committee, (issued in May 1995). (For those of you subscribing to the ATLA Newsletter a copy of this Report was included with the May 1995 ATLA

Newsletter), and (2) The second source I would like to acknowledge is the Engineering Indexes model of the Engineering Information Village, which can be found on the EI home page. I have used with permission the EI Information Village as a model for what I call the Religions and Theologies Global Information Village, recognizing that engineering and religious information systems serve different users and purposes.

I have used the plural of religion and theology as my vision for this global information village is inclusive of all religions and theologies. I invite you to help me come up with a better name—preferably one that lends itself to a good librarian's acronym! Follow along and I will tell you about the key places to visit in the Religions and Theologies Global Information Village.

IV. Conclusion

If we are to take seriously the information revolution being fostered by the Internet we need to continue to co-operate and work closely together in the field of theological librarianship. Steps that can lead to enhanced co-operation include the following:

1. Continuing to work locally and nationally we can co-operatively build union list of serials pertinent to your library collections and Australia and New Zealand in particular.

2. ANZTLA can expand the coverage of ARI to reflect all that is published in religion and related fields in this geographic region

3. Member libraries of ANZTLA can complete the collection conspectus urged on you yesterday by the National Library.

4. All members of ANZTLA must examine the possibilities for connecting to the Internet through a local university, college or Internet provider. This will, as it does for all libraries on the Internet, provide unlimited opportunities to find new resources, but most importantly it will enable your libraries to co-operate with similar ones throughout the world. If this is not feasible, begin lobbying the National Library for assistance. If it is serious about resource sharing, it might include in its strategic plan modifications for ways of assisting institutions, such as yours, to ramp up to the Internet.

5. We must, as library organizations or associations, across many nations begin to work closely together in in organizing the wealth of information on world religions that resides on the Internet. To this end, I propose that leadership of ATLA, ANZTLA, Association of British Theological and Philosophical Libraries (ABTAPL) in Great Britain., the Latin American Theological Information Network (LATIN) and other associations who are interested in a co-operative project on organizing religious information on the Internet, to meet once face-to-face in order to plan the Religions and Theologies Global Information Village. Once we have a plan we can then implement it thorough "teleconferencing", listservs, and e-mail.

6. We can also, for a very small membership fee, become associate members of the World Conference of Associations of Theological Institutions. This membership would link us, worldwide and in an ecumenical way, with theological education and educators.

7. We will need to work closely with our respective church bodies and with other non-Western religions so that as they too ramp up to the Internet the information they have about their religions can be accessible to theological education, clergy, laity and secular culture.

8. Finally, as we explore further possibilities for co-operation, we will want to consider technical issues, such as mirrored sites of the information to be found in the Religions and Theologies Global Information Village.

In summary and conclusion, I have suggested that our new co-operative task for the last five years of this century is to organize the Religions and Theologies Global Information Village. This means: establishing

closer links to theological libraries and librarians throughout the world. For purposes of establishing criteria or standards for evaluating the content of the information that will be included and provided in the Global Information Village we must be intentional in relating to learned societies throughout the world that represent the academy. Our goal at this point is to find and maintain the "best of the best" for our customers, who ever they may be. Our second challenge will be to seek out sources of non-Western Christianity and world religions as we need to think inclusively about the diversity to be included in it.

Organization of the information in the field of religion on the Internet is our new challenge. The Internet itself provides us with a vehicle for not only maximizing our local resources, but a means to disseminate them in new and different ways to others who may not know of their existence.

Thank you for this opportunity to address the issue of maximizing library resources for theological study!

CONFERENCE PAPER

SHARING RESOURCES NATIONALLY: SOME PRACTICAL STRATEGIES

Rachel Jakimow, Assistant Director, DNC Office, National Library of Australia

Introduction

> "There is a boy here who has five barley loaves and two fishes, but what is this among so many?
> Then Jesus took the loaves, gave thanks and distributed them to the people as they sat there. He did the same with the fishes and they had as much as they wanted" John 6: 9, 11-12.

Coralie Jenkin in her article *Library co-operation: if libraries can do it, they do it together*[1] said that whatever approach to co-operation libraries followed, the feeding of the five thousand should be the text. Taking this analogy further, I would like to suggest to you some practical strategies for sharing national resources and answering the question raised at the end of the article "How can we, through co-operation, make our resources sufficient for the multitudes?"

The boy with the original five barley loaves and two fishes can be equated to the individual library or resource centre, the multiplied loaves and fishes the national resources, collection management tools the baskets in which the loaves and fishes are carried for distribution to the multitudes - our internal and external clients, with the DNC Office, the guide in this co-operative venture of feeding the five thousand.

Loaves and fishes: resources in theological libraries

To begin with, what do the multitudes know about the loaves and fishes? How do theological libraries advertise their resources?

The April 1995 ANZTLA Newsletter included a compilation of statistics[2] from four main categories of theological libraries:

- Those which provide clergy training, usually to degree or post-graduate qualifications;
- Schools and training institutions which may offer degrees, but usually not post-graduate qualifications (i.e. Bible colleges, Missionary training institutions);
- Do not have students (i.e. church administrative libraries, resource centres, parachurch organisations); and

1 *Australian library journal*. vol 41, no 1, Feb 1992, p 69
2 *ANZTLA Newsletter* No. 25, April 1995. (insert)