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TRLN'S HISTORY AND PROSPECTS

A talk given by Joe Hewitt, TRLN Project Coordinator, on 23 March 1983 at the National Humanities Center to TRLN participants from all three campuses.

This address will be a little more formal than what we have come to expect from TRLN meetings, but I do welcome the humorous one-liners that we are accustomed to when somebody in TRLN tries to hold the floor for too long. On the other hand, I do have a lot of material to cover, and would like as far as possible to get through it before we begin a general discussion of the issues.

What I plan to do is to:

- 1) Briefly review the history of TRLN.
- 2) Discuss the approach and perspectives of the TRLN project and attempt to place it in relation to other projects that have the ultimate aim of automating the card catalog.
- 3) Talk about some of the possibilities that this project could have for the three libraries and our users if we are indeed able to make TRLN a success.
- 4) And finally, talk about the resource needs and institutional support required to make TRLN a success.

I think it is important that we review some of these issues at this point for two reasons:

First, the time is fast approaching when the TRLN project will need institutional support for implementation and continued operation, and it is important to keep the basic rationale of the project in mind as we seek that support.

And secondly, there is increasing pressure from the profession at large for us to "go public," or to announce to the world what we have done, what we are doing, and what we are planning to do. This kind of pressure will no doubt become irresistible after the public announcement of the TRLN/OCLC linking project, which could come this summer or fall. After this project becomes public knowledge our name will be as widely known as NOTIS or VTLS or Melville, and needless to say all three libraries could suffer a massive loss of credibility if we fail after assuming such a public presence.

I'll begin by reviewing a little bit of TRLN's history. I've done some browsing in my files to come up with some events from our past which it may be worthwhile to recall, if not for the pleasure of it, at least to reassure ourselves that we do indeed have a rather lengthy history.

The immediate forebear of TRLN seems to have been born on March 22, 1976, when Connie Dunlap and Jim Govan named the Duke/UNC Committee on Cooperation. This committee met for the first time on April 30, 1976 and began reviewing the status of our long-standing collection development agreements. The main focus of the first meeting was planning for a coordinated serials review project and reviewing our mechanisms for reporting new serial subscriptions and serials cancellations. A number of other meetings were held in 1976 and early 1977, and the focus of the discussions began gradually to expand to include broader areas of cooperation.

I found a copy of a letter dated April 12, 1977 from Connie Dunlap to Jim Govan which begins as follows:

Dear Jim: I should like to explore with you the possibility of undertaking a long range plan to develop further and to broaden the scope of the cooperative agreements between the libraries of UNC and Duke. I would envision that this kind of planning would go beyond the work of the present committee and would at some time necessarily involve at least the chief academic officers of the two institutions.

I am sure that this letter was simply the formal expression of ideas that had been talked about for some time, but it did seem to have been the catalyst. Things began happening rather quickly thereafter. On May 19, 1977 there was a meeting of a new group, simply called the Cooperation Committee. The UNC/Duke designation was dropped because State had joined the group and Cy King attended that meeting as State's representative.

Sometime between May 19, 1977 and June 9, 1977, TULCC (the Triangle Universities Libraries Cooperation Committee) was formed. The group met for the first time on June 9, 1977 and organized itself into the form it essentially retains today, except for the fact that the TULCC Technical Committee has evolved into the TRLN Coordinating Committee.

There were numerous meetings in the summer and fall of 1977 as the group worked on its first Title II-C proposal and a general proposal for the development of cooperative programs. This work culminated in a successful II-C proposal for \$250,000 for collection development awarded for Federal fiscal year 1978 and a report entitled Proposal for Funding to Support Cooperative Library Development Programs, dated December 26, 1977.

Perhaps it is indicative of the sense of urgency of those days that the report was completed on the day after Christmas. As the one who wrote that report on behalf of the committee, I can testify to the fact that there was indeed a great deal of excitement and enthusiasm for the work that we were beginning.

The December 26 report states much of the basic rationale that later found its way into our II-C proposals for the online catalog project. I found in that document a number of the phrases that have become TRLN buzzwords: phrases such as "Use of the collections as a single unified resource," "A tradition and a framework which offers a unique opportunity for successful cooperative development of library collections and services." The document also stated the principle that the development of interactive online catalogs was essential to the efficient functioning of the entire range of cooperative programs we hoped to develop. In addition to this statement of rationale, the report proposed a three-year program in the areas of automation, collection development, and public services and collection access.

Following the December 26 position paper the libraries moved to retain John Knapp and Ritvars Bregzis as consultants to propose a plan to follow up on the committee's recommendations. Knapp and Bregzis made an extended site visit in August 1978 and issued their final report in January 1979. This report recommended that we jointly pursue the development of a local area distributed network to provide mutual access to the three collections. The Knapp/Bregzis report also served as a rich mine of concepts and phrases for use in the Title II-C proposal which we were then preparing for Federal fiscal year 1979/80.

Anticipating that this proposal would be successful, TULCC moved early in 1979 to appoint the Task Force on the Syntax of the 049 Field. This group worked throughout much of the year and submitted its first report in October 1979. This report, the first of many TRLN technical reports, set a high standard for later TRLN documents. It represented a thorough treatment of the complexities involved in representing holdings data in machine readable form, given the restraints of the 049 field, and became the basis for later documents dealing with local holdings which transcended these restraints. The COM Catalog Task Force was also established in 1979 and later produced a report that became the specifications for the first version of the COM Catalog as well as the expanded version which we are now in the process of producing.

In the late summer and early fall of 1979 we were preoccupied with recruiting and hiring a staff for the project. We were fortunate to find in our own backyard good people who were familiar with cataloging theory and practice, with the particular bibliographic practices of the three libraries, and with systems and computing. In Jeanne Sawyer and Gwyneth Duncan, we found people with the combination of skills that are indeed

rare on the library computing scene today. Jeanne had a M.L.S., experience as a science cataloger, automation experience at the EPA and as a member of the Computer Applications Task Force at UNC, and she was a masters candidate in computer science. She is now a doctoral candidate in computer science and is working on a dissertation on large file index structures which will be very useful to TRLN. Gwyneth had eight years experience in data processing, including several years maintaining the circulation and serials systems at UNC. She also had a deep interest in libraries. Such an interest, in fact, that she is now a masters candidate in library science at Chapel Hill. Let me assure you that there are a number of organizations that covet the skills of these two, particularly our friends in Dublin, Ohio.

We were also able to recruit a staff of very able programmers who also have become highly dedicated to this project. Most of the programming staff is here today and I hope everyone will get a chance to meet them.

The staff set to work in late 1979 on the development of the archive tape processing system, the COM production system, and the functional specifications for the online editing system. This work occupied the staff for much of the year.

An historic event occurred in June of 1980 when we officially adopted the name TRLN and the TULCC Technical Committee became the TRLN Coordinating Committee. In dealing with the documentary evidence of this event, it was interesting to note that two sets of minutes after the change of name still carried the heading TULCC Technical Committee. I expect that this little matter will give TRLN historians all sorts of trouble in years to come.

The latter half of 1980 was a particularly difficult time for TRLN. It was during this time that we were seduced into attempting a cooperative project with SOLINET. As SOLINET's real intentions became clear during a long and rather tense series of meetings in the summer and fall of 1980, it became more and more apparent that we were not compatible, at least as long as SOLINET pursued its goal of a regional processing center in competition with OCLC.

Our approaches to development were also at opposite ends of the spectrum. SOLINET hoped to speed up schedules by minimizing time spent on functional specifications and sought quick fixes to complex problems such as segmentation of records into layered network levels. Besides that, we were never able to teach SOLINET administrators and staff to pronounce our name "Tee Are El In" rather than "TREELYN," and that is something we haven't succeeded in doing to this day.

Nevertheless, we did spend the equivalent of two and a half to three months working with SOLINET, or, as it turned out, for SOLINET. In a recent meeting with Frank Grisham, it was admitted that the local holdings component of SOLINET's LAMBDA

systems is largely the work of TRLN, something that we have known for some time, but a fact that will probably never be publicly acknowledged.

1980 was an eventful year in many other respects. The archive tape processing system was designed, coded, and tested during January-May, and went into use as a regular production system in September 1980. The TRLN COM catalog was produced during November and December 1980 and distributed in January 1981.

Also during the Fall of 1980 a hardware advisory panel began work on the selection of computing equipment for the network. The panel never formally completed its work because of the opportunity to purchase a pre-owned Tandem system at greatly reduced cost. Tandem had already established itself as one of the front-runners and the purchase was approved by the Advisory Panel, the Coordinating Committee, and the Directors. Installation of the Tandem began in late January 1981. Installation was completed and equipment certified in April 1981.

In January 1981 the focus of the systems staff shifted to the development of the online editing system. The software for this system was completed in October 1981 and the system became available in a demonstration mode. The OES could not become operational at that time, however, because of the lack of storage capacity. Finally, two 200 megabyte disc drives were acquired, the full database was loaded, and the system became available for operational use in the second quarter of 1982. Throughout that period there was also fine tuning of the archive tape processing system as well as modifications to respond to changes at OCLC.

Beginning in the late fall of 1981 and continuing until the present time, the focus of the project has been on the work of the Systems Advisory and Cataloging Policy Committees. Proposals for various components of the online catalog began emerging from the Committees in February, 1982. The format for presenting TRLN system design proposals for staff review was an ingenious device which insured that each design decision had a stated rationale, that the decision and its implications were fully expressed, and that all design decisions were thoroughly documented at the conceptual level, something which to my knowledge is lacking in most other projects of this nature.

The TRLN system design proposal format and review procedures are unquestionably a sound way to go about defining the functional specifications for an online catalog. However, it is also a time consuming approach, particularly in a multi-library environment. It was also clear that many staff needed a more concrete context in which to evaluate proposals. For these reasons, in the fall of 1982 the Coordinating Committee decided to develop a prototype, the BIS-1, based on proposals which would emanate from the Systems Advisory Committee and the Cataloging Policy Committee but which had not passed staff review. The

proposals that would form the basis for the second version of the online catalog, the BIS-2, would undergo the full review process and also be evaluated in the context of a functioning system.

As those of you who saw recent presentations by members of the Committee know, many of the features of the BIS-1 have been defined and the specifications will soon go into detailed systems design. Conversion specifications have been completed and the programming staff will soon be involved in converting records from the OES to the BIS format. We expect to have the BIS-1 available for field testing in the fall of 1983.

Also beginning last fall, the Circulation Committee began work on the specifications for a circulation system to be developed after the implementation of BIS-2. This step is in line with our general goal of making the online catalog the centerpiece of an Integrated Automated Library System which would be developed incrementally over a period of years. With respect to circulation, the specifications developed by the Committee will be used to evaluate available software packages which can be modified to operate in an integrated fashion with the BIS-2. If this approach does not turn out to be possible, these specifications will form the basis for in-house development.

While the Committees have been doing their work, other developments have been underway -- particularly the negotiations regarding the TRLN/OCLC linking project. Progress has been slow, to say the least, but we now seem to be clearly sketched in on OCLC's rather full project chart, and it appears reasonably certain that we will begin work on the link in January, 1984. I have heard that Rowland Brown often refers to this project in his meetings with the network directors and Brown's apparent enthusiasm for the project now seems to have filtered down to lower levels of the OCLC organization.

I believe that you are all aware of the significance of the linking project, but let me repeat: the computer-to-computer link with OCLC will give TRLN the most advanced and efficient link with OCLC available to any local system, and as the standard-setting prototype for other OCLC linkages, the link could be one of the major contributions of TRLN to networking in general.

Those of you who have been involved with TRLN at the nitty gritty level know how sketchy this recital of TRLN history has been, but brief as it is, it is enough to underscore the fact that a lot has been accomplished. Since that first meeting of the Duke/UNC Cooperation Committee in April 1976, we have received almost \$1,700,000 in grants for collection development, systems development, and COM catalog production. This record in itself represents a degree of confirmation of our goals and our approaches to achieving them. We have also created an operational archive tape processing system, an online editing system, a COM production system, a recent acquisitions list

production system, and we are well on the way toward a prototype of the online catalog, which for reasons that I will explain later might reasonably be expected to be one of the best online catalogs of its generation for research libraries.

There are other achievements that are perhaps less obvious. For example, I have been told that some 20 other organizations have approached OCLC regarding a linking project similar to ours. OCLC conducted onsite investigations at some 7 or 8 other projects. Although I have long since stopped trying to fathom OCLC's rationale for doing what it does, I can't help but think that OCLC has decided to work with TRLN because it judged us to be a stable and soundly conceived project and the best available environment for testing and demonstrating the kind of link that is the wave of the future in networking.

This parallels the feeling I get from several other quarters: although we have maintained a low profile, TRLN has a solid reputation as an organization from which good things are expected. This is due in part to the reputation of the institutions involved, in part to the reputations of the staffs of the libraries and the project, in part to the quality of what we've done in putting together our base systems, especially the archive tape processing system and online editing system. And, to be honest, our reputation is due in some measure to the halo bestowed by our success at getting grants.

But this raises a question that has been posed to me on a number of occasions. Is TRLN really different from other projects? And if so, how? For what reasons do we believe that the TRLN online catalog will be superior to other systems? What is it that makes us superior?

These are sensible questions because there are indeed many other systems being promoted as online catalogs. So many, in fact, that our staff could spend fulltime making feature-by-feature comparisons of existing systems and the TRLN system. Published comparisons, such as those by Joe Matthews, are all of the check-list variety. That is, they say whether or not a system has a given capability, but without any qualitative comparison. In spite of this lack of detailed comparative information, we do know enough about most other systems to know that we are indeed different from, and in some respects superior to, systems available either as turnkey systems or software packages. Let me now sketch in a few of the distinguishing characteristics of the system being developed by TRLN.

1) First is our focus on the online catalog as the core of an Integrated Automated Library System. The fundamental design decisions at TRLN are oriented to the online catalog function, while most other systems being described as online catalogs for individual libraries grew out of systems with an entirely different orientation. For example, CLSI, Dataphase, VTLS and several others represent enhancements to circulation systems.

NOTIS served basically as a processing system for many years before being upgraded to an online catalog. There are others which were developed as online catalogs in a centralized network environment. These include Melville, WLN and LAMBDA.

As far as I know, the only operating system that was developed initially as an online catalog is the Mankato State System. The evaluations that I have seen of the Mankato State System are generally positive, but it is a simple, basic system and is not designed for the scale of a research library.

By emphasizing the online catalog as the core system, it can reasonably be expected that the TRLN catalog should be superior as an online catalog to other systems now available.

2. TRLN systems place a very high emphasis on database integrity. This emphasis is expressed by the stringent validation of records coming into our system, as well as our online editing and database maintenance facilities. These are features that many other systems don't have, or else have in a very primitive and simplistic form. This was particularly evident in the VTLS system, at least to the technical people who attended a recent demonstration. This emphasis was also evident in our early decision to base the TRLN system on the full MARC record at a time when a number of others were developing systems based on truncated records.

In my work as a member of the OCLC User's Council Task Force on OCLC and local online catalogs, I have come to learn that what we are doing here in terms of record validation is extremely rare, if not unique. This is the type of investment in quality that may not show obvious benefits for a number of years, but we feel that it is absolutely essential if our system is to perform in the long run as a replacement for the card catalog and the principal means of access to our collections.

3. Another point of difference between TRLN and a number of other systems is that the TRLN system will attempt to deal with the bibliographic and physical complexity of the materials that find their way into research library collections. Our system will represent physical holdings to a level of detail and accuracy not possible in other systems. We have devised means of handling the difficult cases such as accompanying materials, boundwith analytics, conference proceedings which are sets within series, and items that require copy-specific notes. We will also represent the bibliographic relationships within the database more thoroughly than any other system that we are aware of.

One of our committee members, I believe it was Arnold Hirshon, has coined the phrase "the 90% system." By this he means a system that is designed to handle about 90% of the bibliographic cases that can occur, and this, in my opinion, is what the current turnkey systems are. Some, in fact, are more like 75% systems. TRLN is aiming to be a 99.9% system, because

in a large research library, we have more than our share of the difficult cases, and even 10% on the scale that we operate represents a large number of items if they cannot be handled adequately. At Chapel Hill, for example, 10% would be some 5,000 titles annually.

4. Fourth, TRLN systems are being designed for a library system that is organizationally complex. That is, a system with scattered collections, some separately administered and not using the same cataloging rules or classification schemes. The collections are also dynamic with a high level of transfer of materials among the collections.

We expect to be able to search the TRLN database at numerous levels. For example a user in the Chemistry Library could search the Chemistry Reference Collection, the Chemistry Collection, the institutional collection or any other subset of the institutional collection, and the combined collections of the three TRLN libraries. Searching by collections to this degree is not available in most of the systems available for purchase either as turnkey systems or software packages.

5. Another distinguishing feature of TRLN developmental perspective is our emphasis on the systems interface between the local online catalog, other local online catalogs in the distributed network, and the bibliographic utility that serves as the source of bibliographic records. Thus our emphasis on the linking project with OCLC. If this project works out, and as I've said, it seems more and more likely that it will, TRLN will have the most effective interface between its online catalog and OCLC of any system, possibly including the local system developed by OCLC itself.

Many of these things are not obvious to the user, just as many of the things that go into making the card catalog are not obvious to the user. Maybe I can best sum up the TRLN approach in this way:

A lot of people have said that in designing online catalogs, one should not be constrained by the traditional concepts of the card catalog, and indeed this is true. The online catalog offers many inherent advantages such as remote access; more powerful retrieval; ability to restrict, expand, and manipulate retrieval sets; ability to print out results; and so on. The TRLN system will of course have these capabilities.

But at the same time, we feel that it is important not to discard the best features of the card catalog and its associated manual files such as the shelf list and authority files. The online catalog must provide information at least as detailed and accurate as that now available in the card catalogs. That is our starting point, while in some other systems these characteristics of the card catalog have been compromised in order to create the advantages of the online catalog. The goal of the TRLN online

catalog project is to do both; that is, to gain the advantages of online catalogs without giving up the traditional strengths of the card catalog.

In pursuing this approach I believe that TRLN committees have performed what is possibly the most exhaustive analysis anywhere of the manual records to be formatted for machine manipulation and retrieval. This is particularly the case with shelf-list information. It appears that we are far ahead of others in this area, and with the proper dissemination of this achievement we may succeed in creating a standard for local holdings data. Arnold Hirshon is now working on a technical paper on the TRLN holdings format which I hope will go a long way towards making our holdings formats known to the world.

In any case, our approach to online catalog development has been deliberate and thorough, and those of us deeply involved in the project feel without a doubt that if we are allowed to carry this approach to its logical conclusion, we will have an online catalog far better for our libraries than anything we could acquire through other means.

But one thing about our approach must always be emphasized -- we have set for ourselves a very complex and difficult task. By facing the full complexity of research libraries head-on and attempting to solve many problems for the first time in a computer environment we are involved in an intellectual and practical enterprise of great magnitude. A lot of people do not understand or appreciate the scale of this enterprise and this includes many who have been engaged in similar projects on a more superficial level.

In many ways the work of our committees has been a process of exploration and discovery as they have uncovered the full scope and complexity of the information and services now provided by our manual records. Because so much of our approach does involve discovery, analysis, and the examination of trade-offs related to complex factors, the project should never become schedule-driven to the degree that many similar projects are. I remember, for example, a pressure-packed session with an administrator at SOLINET who was making the pitch that we could have an online catalog two years earlier if we would tie up with SOLINET, and he rather directly accused me of idiocy for not accepting this opportunity for instant gratification. Just as history has proven us right in this case, I think it will continue to do so if we continue to take the long view and lay solid groundwork for our systems. This will mean, however, that while we will continue to use schedules as planning tools, our commitment will always be to finding the best solutions to unanticipated problems rather than to deadlines, and the project can be expected to always disappoint anyone with a "sooner the better" orientation.

On the other hand, TRLN's track record in bringing up systems has been quite decent in spite of our unwillingness to sacrifice design quality for short-term gains, and I expect that this will continue to be the case.

Having established the nobility of our purpose, I still think it is necessary to say something about an idea that is widely prevalent today -- that it is better to acquire a system than to develop one in-house. There are indeed many situations in which this would be the best advice, depending upon the system required and the needs of the library, but as a gross generalization to be applied indiscriminately in every situation, this idea has become a truism which is having an insidious effect on the development of systems to meet the needs of libraries and their users.

Certainly, any library looking for a basic circulation system should not get involved in in-house development. Many libraries interested in online catalogs to replace card catalogs should also wait for developments to take place elsewhere, particularly if in-house development depends totally on institutional funding. On the other hand, a library, or better yet a group of libraries, fortunate enough to have access to outside or special funding will be better served by in-house development. In fact most of the systems available today such as those evaluated by Charles Hildreth and Joseph Matthews have been locally developed systems. Here are some of the advantages of this approach.

First is the fact that the system will be custom-tailored to the needs of institution. While many of the systems available today offer a limited range of options, any library adopting a generalized system will have to make compromises. As a general rule, the more complex the library the more severe the compromise.

A second point is that while there is no doubt that the effort for in-house development is greater, the effort required to acquire a system should not be minimized. There are libraries that have spent almost as long writing specifications and RFPs and evaluating vendor systems as we have spent in development at TRLN. The other major alternative to in-house development is purchasing and modifying software packages, an approach that seems almost inevitably to involve more effort and expense than anticipated. In some cases this effort approaches that of original development. While in general in-house development is more expensive, if this expense can be off-set by outside funding, as it has been to a large extent at TRLN, the acquisition of the system is likely to be cheaper.

A third point is the fact that a system developed by a systems group working closely with practicing librarians and within the context of an actual library collection is much more likely to be based on a sound functional design. I also believe

that this close relationship will be necessary on a continuing basis for the successful maintenance and enhancement of an automated library catalog to better serve evolving user needs.

Frankly, I have grave doubts about the ability of organizations like OCLC, SOLINET and certain commercial firms to develop local systems that will meet the needs of any particular library. Although there are many competent people in these organizations, I have met very few with an in-depth understanding of the day-to-day operation of libraries. Their expertise is in the fields of computing and networking. The input they receive from librarians is often so filtered and has to be so broadly generalized before it can become actionable that it tends to lose its value in making decisions related to the design of local systems. The place for the development of library systems is in the library, and the best systems existing today are those developed in libraries. The best of the systems to emerge in the future are likely also to emerge from in-house library development.

A fourth point is that there is a considerable degree of risk in acquiring a system at the present time because of the instability of the firms offering systems to libraries. OCLC has done a rather thorough analysis of this field in preparation for its own move into the local library systems market. You can be sure that this survey was carefully done because OCLC's own future depends on it.

Here's what they predict: There is going to be considerable attrition in the firms presently offering library systems. Many such firms have based their financial strategy on the assumption of quick sales to libraries, but unfortunately, at a time when fewer and fewer libraries can afford to purchase systems.

Of those that do survive, most are going to have a difficult time acquiring capital to develop second and later generation systems. All of them are going to find it difficult to establish adequate field service agencies for a nationwide customer base. OCLC itself feels comfortable entering this market only because it has a ready-made field service and marketing organization in the regional networks and because it already has what it calls "a significant cash flow." The point is, that, once committed, the dependance of a library on a systems vendor is enormous, and with the market expected to be so unstable over the next several years, the risk at this time is equally great.

Related to this point is the fact that online catalogs are still in their infancy. If you have read Charles Hildreth's book on public access online catalogs you cannot help but be aware that what exists today and what will exist in the next several years are only the beginning. Every system now developed or under development will be undergoing continuous evolution and replacement in the foreseeable future, and in purchasing a system a factor even more important than the system you are acquiring

now is the arrangement by which the library will participate in the process of future development. What control will the library have, both in terms of the direction of development and the cost of replacement systems? It is highly unlikely that any acquired system will allow the same degree of control over one's destiny as does a system developed and maintained in-house, or one jointly maintained by a small, compatible group of libraries.

The fact that online catalog development is still at a very primitive stage has special implications for TRLN. What we have done here and what we expect to do by the end of our final II-C grant should make TRLN one of the leading examples of a public access online catalog for research libraries. Combined with our other cooperative programs, TRLN can be expected to become one of the premier examples of a local area research library network. As such, there is no reason that we should not also aspire to become a recognized research and development center for automated systems for research libraries, and we should always be in a strong position to acquire a share of whatever grant funding will be available for the progressive enhancement of public access online catalog systems over the next decade or so. If we maintain our present position we can stay on the leading edge of these developments, which of course would be to the great benefit to our libraries and our users, and if we capitalize on our position, we should be able to do this at a cost to ourselves no greater than the cost of being a customer of systems developed and maintained by another organization.

Let me give you some examples of what I am talking about:

1) Authority control is still an underdeveloped area and is likely to remain so for some time. This will be an area of possible development grants for an organization such as TRLN after the Title II-C funding ends.

2) Someone of note, I have forgotten who, has been quoted as saying that the 1980s will be the "decade of linkages" in library technology. The direction in a number of states, including North Carolina, is toward the linking of existing and emerging local systems rather than the development of centralized networks. Particularity with a successful linking project with OCLC, TRLN should be in a position to lead the way in linking with other systems and be a viable candidate for grant funding for that purpose.

3) There will be a great deal of work in the next decade in making online bibliographic access systems more user friendly and user responsive. If some of the ideas emerging from our committees bear fruit, TRLN should be able to play a significant role in these developments, perhaps with the help of grant funding.

4) TRLN might also become the development and testing ground for totally new concepts of automated library services. For example, as some of you know I have been playing around with

an idea called the Online Library Resources Directory. Briefly this system would consist of indexes to composed descriptions of groups of library materials. It would have the purpose of providing some degree of access to materials which are not part of our mainstream systems of bibliographic control. It would also have the purpose of directing users to the libraries with the most substantial resources in a given area. Obviously this could be an important feature of a large scale linked network. The Online Library Resources Directory could act as the road map or traffic cop for such a system. Third, the OLRD could serve as a means for a continuous assessment of the strength of resources in a group of libraries.

This concept of course needs a great deal of groundwork. But I have discussed it with some people from outside the area and they agree that it is an exciting and timely idea. This is an example of something TRLN might have a reasonable chance of pursuing with the help of outside funding.

The point is that by becoming the originator of a successful online catalog for research libraries, TRLN will always be in a position to pursue the development of new systems and services that would not be possible if we were customers of another organization.

Fourth, and finally, I can see the TRLN automated system as the key to the TRLN libraries becoming a veritable laboratory for the study of human computer interaction, the design and development of management information systems for research libraries, the study of cooperative structures for the joint maintenance of systems and coordinated development of collections and services. This could be a loosely coordinated enterprise that would involve the librarians in the TRLN libraries, the faculty and students of the area's library schools, and no doubt outside researchers from time to time. If we could create such an atmosphere it would be a tremendous force in staff recruitment and staff development for each of the libraries and would work toward making this a tremendously exciting and vital place to be involved in the profession of librarianship. The key to such a goal is to have an advanced automated library system which we operate and control ourselves.

Obviously, these are lofty goals, but when you look at the assets of the TRLN libraries I think that you can reasonably conclude that while these goals are indeed ambitious, they are also realistic. Let me review just a few of our assets.

1. First is the general vitality and national identity of the Research Triangle Park area, including of course the universities, and the firms and institutions in the Park. TRLN's association with this area would tend to give us an instant and positive identification that will always be helpful, as it has already been in securing Title II-C grants.

2. The geographic proximity of the libraries is perfect for what I have been calling, as you may have noticed, a Local Area Research Library Network. (I suppose you could add an I for information in that name and create the acronym LARLIN, but I don't expect the folks in Palo Alto would like that.) In any case, the Local Area Research Library Network is a concept which will have wide application throughout the country and TRLN could become a leading prototype for such a network.

3. Third is our longstanding tradition of cooperative library programs and our established reputation in that area. I think we have said enough about that that I don't need to dwell on it here, but I do think that we should remember that our past achievements in that area are a real and valuable asset.

4. Fourth is the fact that we have already made substantial progress towards the development of a bibliographic information system for research libraries as I have already outlined in this paper.

5. Fifth is the fact that we have here, at TRLN and in the TRLN libraries, a highly competent staff as good as that of any project working on library automation. Although our staff is small, it is an asset which we sometimes tend to forget, so let me dwell on it for a moment.

I have already mentioned Jeanne and Gwyneth and their rare combination of systems and library backgrounds. I have also mentioned our good fortune at hiring a dedicated and highly competent programming staff. But we should not forget the understanding of systems work that has been developed by our own staff through their participation in the TRLN advisory committees. I think that any of our committee members will attest to the fact that this has been an intensely educational experience, as almost any experience that involves meeting once a week for two years would. As a result of this involvement of our staff in this project we now have a growing core of librarians who are familiar with systems work at a rather high level and the libraries are far better prepared to take on the challenges of implementing, maintaining and enhancing a bibliographic information system than we were in the past.

I should also add that the expert staff at ADP in Chapel Hill has been available for consultation and advice throughout this project and their assistance has been invaluable. We have every reason to hope that this will continue to be the case even after the project staff moves to the Davis Library.

I am going on at such length about staff as one of our primary assets because of another prevalent opinion that is frequently expressed by network directors and others associated with large systems organizations. That is, that good systems work cannot take place at the local level because of the lack of qualified staff. Although I resent the implications of that

point of view, which is that the large network systems are better qualified to develop library systems, there is a certain amount of validity to the point that library systems staff are relatively scarce. Competent systems people with a strong understanding of library operations are indeed rare, as are librarians with an informed appreciation of systems work. At TRLN we have a strong staff on both counts and one that is constantly improving. We have beat the odds on this score in part through sheer luck and in part because of a little bootstrapping of our own.

I believe that the TRLN libraries must count their staffs and the project staff as a major asset and one which we cannot afford to lose through loss of continuity in the project or to waste by not giving them adequate resources to work with.

With these assets, along with a number of others that I didn't mention, I do think that we are in an excellent position to deliver the kinds of services to our users that a functioning TRLN network can provide, and also to achieve for our libraries a level of distinction in the application of computer technology that parallels our status in other areas of library collections and services.

But there is one asset that I did not mention, because it is one that we do not have, and that is a level of commitment from our institutions that would guarantee the survival of the project. Going back to Connie Dunlap's letter which I referred to earlier, the involvement of the chief academic officers of the institutions has been a goal of the project since 1976. We still do not have that and the time has come to make that our top priority. So when we return after the coffee break, I would hope that how to achieve this goal will be our main topic of discussion.

Excuse me for holding the floor for so long, but I think that it is worthwhile from time to time to stand back and reflect on what we've done and what we hope to do in the future. If this kind of meeting seems useful, maybe we could make it an annual event, but hopefully with a different speaker.