

1

"THE TULCC PLAN IN RELATION TO STATEWIDE LIBRARY DEVELOPMENT"

Presentation to CHALLENGES_1980

A CONFERENCE SPONSORED BY THE NORTH CAROLINA STATE LIBRARY FOR
DIRECTORS OF PUBLIC LIBRARIES OF NORTH CAROLINA

GASTONIA, NC SEPTEMBER 1979

JOE A. HEWITT

Thank you for the opportunity to talk about the plans of the Universities in the Triangle area for computerized catalogs.

You probably haven't heard much about the so called TULCC plan. You probably haven't heard much about TULCC itself, except maybe that it's a group that has shown a useful talent for getting grants, so I'll start with a little background information.

TULCC is not a secret organization. The group is only 2 1/2 years old and hasn't accomplished a great deal yet that is interesting enough to report to the profession at large. We have also been reluctant to begin open discussions about plans while they are only pipe dreams, but now that we have the means to get started on actual development there is indeed something concrete to announce and to discuss.

Beyond that, the plans that I will talk about today have developed rather quickly, and those of us working on them haven't had much chance to attend to the important matter of public relations. To this point there has not been anyone working

full-time on this project and those of use involved with the planning so far have been doing it in addition to our regular duties. So, there just hasn't been time to get out the professional articles and the publicity that some of you have indicated to me might have been useful. Very soon, however, we will have full-time people working on this project and you may hear more about it than you want to know.

As many of you do know there is a long tradition of cooperation among the Libraries at Carolina, Duke, and State, especially between UNC and Duke. Some of the things we have been doing for many years include:

1. Special loan agreements--direct borrowing privileges.
2. Operation of the daily courier service between the three libraries and points in the Triangle Area.
3. Special agreements to provide free photocopy services for faculty.
4. Jointly sponsored staff development programs.
5. Most important of all are our collection development agreements which date back to the 1930s. These are among the oldest such agreements in the profession and they are well known among academic research libraries.

Our collection development agreements involve the research level collections only. There are, of course, many general, popular, and instructional support materials that have to be duplicated. These agreements involve the definition of areas of emphasis. Let me give you a few examples:

1. South America - division by country.
2. Eastern Europe - for example, Duke specializes in Polish and UNC specializes in Czech.
3. Other areas of the world - Duke collects Canadian materials, UNC collects Australian materials.
4. We also have agreements covering certain formats of materials - in government documents Duke specializes in the documents of foreign nations, UNC specializes in state documents. We both, of course, have substantial holdings in federal documents and documents of international organizations.
5. We also coordinate our holdings of newspapers in microfilm.

We have a number of agreements relating to the purchase of expensive research materials in microform. These even involve the joint purchase of materials to be housed in one

library or the other, which is a very rare arrangement for libraries to undertake. Landmarks of Science is an example of a microform set purchased jointly.

On the whole, we feel that these policies have paid off, not only for Duke and Carolina, but for the entire State. There is remarkably little duplication of the research level collections. This has increased the range of materials available not only to our own users but to anyone in the State who has a need for these kinds of research materials.

I mention this in such detail because it is the existence of these programs that makes the need for computerized catalogs so compelling. At the research level the collections have been developed as if they belonged to a single library system and there is a need to provide the means to use them as such.

These various cooperative programs have been run pretty much on an ad_hoc basis over the years. For example, public service directors have operated the courier service and collection development officers have looked after the programs in their area. There was no single group responsible for general direction and coordination of these cooperative programs.

In 1977 it became obvious to the directors of the three libraries that not only was coordination needed but we also needed to expand the scope of our cooperative activities, both in terms of areas of activity and by bringing North Carolina State University into more active participation.

So TULCC was formed - the Triangle University Libraries Cooperation Committee. TULCC itself is made up of the heads of technical services, the heads of public services, the systems librarian, and the chief collection development officers from each library. The library directors also meet on a regular basis.

We also have a number of satellite committees made up of other staff from the three libraries. TULCC itself meets approximately monthly during the academic year at the National Humanities Center.

So, what has TULCC done? And what is TULCC planning to do?

First, I'd like to mention some accomplishments:

1. We have reviewed the collection development programs and re-committed the libraries to these programs with some realignments.
2. Also in the area of collection development, we submitted a Title II-C proposal for joint acquisitions and were awarded a grant of \$250,000 last year for the purchase of library materials. This happened to be the only Title II-C grant awarded in the Southeast last year and we were proud of that.

3. We are now preparing copy for a Union Guide to Microform Holdings in the three libraries. We plan to publish this and make it widely available to libraries in the State.

Beyond that we have talked about a lot of things and I emphasize talk here. Topics which have been discussed fairly seriously but haven't yet resulted in any real planning include the following:

1. Cooperative storage facilities.
2. Cooperative conservation and preservation programs.
3. A bus service between the libraries and points in the Triangle.
4. Staff exchanges - for example jointly hiring an Arabic cataloger since we all require some Arabic materials but none of us has a need for a full time specialist in Arabic languages.

In our work so far one thing has become clear to us -- that computerized catalogs providing remote bibliographic access to the collections are central to most of our ideas for cooperation.

That is, our ultimate goal is to manage and utilize the three collections as if they were a single, unified resource. To do that we have to have a unified system of bibliographic control over the collections.

For these reasons our main effort over the past year has been in planning computerized catalogs for the three libraries.

Our first step, naturally, was to hire consultants, and we brought in two distinguished librarians in the field of library automation. They were:

John Knapp, formally Technical Director of the Research Libraries Group (RLG) now Chief of Systems for Blackwell's North America and
Ritvars Bregzis, Director of Technical Services at the University of Toronto, who has been involved in library automation for over twenty years.

Knapp and Bregzis submitted a rather long report which gave quite a bit of technical justification for their recommendations. But I will just mention briefly the main thrust of what they recommended to us:

1. That the three libraries jointly develop a distributed online network. That is, each library should operate its own online catalog with an in-house computer with telecommunications links between the three catalogs.

2. That the local network be designed to be expansible so that it can include libraries in other areas of the State and in particular the campus of the UNC-CH system.

We have followed through on these recommendations by getting another Title II-C grant, this one for two years, to begin the development of a computerized catalog along the lines recommended by Kanpp and Bregzis. Let me now describe the project in terms of:

1. Its ultimate objectives.
2. The time frame for getting there.
3. Projected costs.
4. And finally in terms of some of the features of the network, and especially those that provide a contrast to planning in the public library sector as I understand it.

First, the goals, or what the network is going to be when completed. As you know once you get started with automation there is no end to it - so we will probably be getting into circulation, acquisitions and other functions after the catalog system is complete and possibly before.

85

Here is a very brief outline of what we expect our system to look like:

1. There will be a master database consisting of full Marc records maintained on a mainframe computer at Administrative Data Processing at Chapel Hill.
2. The master database will be built through OCLC archive tapes and will be expanded by adding the archive tapes as we receive them. Thus, our plan calls for continued membership in OCLC or some other utility, and it requires the use of full Marc records.

The master database will be used to produce COM catalogs, to derive the online database for the inhouse computers, and to maintain the complete authoritative records of our holdings.

The records in the online database will be a truncated version of those in the master database but will have all the essential access points including, subject headings. The online database will be created from the master and mounted on the inhouse computers in each library.

The system will be designed to handle both Dewey and LC classifications and will use ACR2 as a cataloging standard. There will be standardized holdings formats and transaction codes.

86

From the very beginning we expect to plan for an authority control system which will be applied both to the master databases and the online databases.

Following are some features which we intend to incorporate into the online catalog:

1. We hope to have a powerful and flexible query system, more along the lines of WLN than OCLC.
2. We also plan to have a good instructional and practice modes so the students and faculty can learn to use the catalog as independently as possible.
3. It will have detailed holdings information and location data, but not circulation data as originally implemented.
4. We are also thinking of some rather farfetched ideas that may or may not work out. For example, one is that if there is a malfunction in the online catalog of one library it can be operated by the computers in the other libraries. In short, the catalogs making up the nodes of the network will backup each other.

5. As far as our present planning is concerned, the project will be completed when such a catalog is installed in the three university libraries. But we plan to design it to be expansible to other libraries.
- a. For example, there will be the capability to dial up for any library in the State that needs it and has a terminal. This will be the means of access for most public libraries in the State.
 - b. The system will allow full interactive participation for any library that wants to establish a compatible online catalog if and when telecommunications cost will make this a reasonable and cost-effective option.
 - c. The software will be available to any library that wants a similar system but which does not need or cannot afford to be interactive with the others in the network. We are very cautious at this point about the telecommunications aspects of the network. The technology is there but the costs are high. We are certain that the benefits of such links between UNC, Duke, and State will be worth the cost, but have no idea about links between ourselves and other libraries. That will be up to them to decide.
 - d. Finally, there will be continued production of COM catalogs as backup to the individual online catalogs and as union catalogs for distribution to other libraries.

So, there are four possible ways for libraries other than the three universities to make use of and benefit from our project.

In terms of the timeframe, present plans call for a six year period of development beginning approximately in January 1980. The period has been divided into three phases of two years each:

Phase I - 1980 and 1981

1. Establish the master database at UNC-CH Administrative Data Processing.
2. Establish the online update and maintenance functions for the master database.
3. Begin production of COM catalogs.
4. Develop system for deriving the online databases.
5. Purchase the inhouse computer for UNC-CH and mount UNC-CH's online database on that computer.

Phase II - 1982 and 1983

1. Develop, test, and debug the user functions of the online catalog query system, display system, and instructional support.

2. By the end of this period the online catalog should be fully operational in the UNC-CH library and ready to transport elsewhere, though without the telecommunications links necessary to support the network.

Phase III - 1984 and 1985

1. Install online catalogs at Duke and State.

2. Establish the telecommunications links among the catalogs.

I have been asked to talk about how much all of this is going to cost. According to our present calculations, and I hope that no one remembers these figures five years down the road, to develop and install the system as described will cost \$2,139,815.

This excludes the user terminals for the three library systems, which adds another \$375,000 to the cost and brings the total to \$2,514,815.

Breaking the costs down into their two basic components, hardware and software, we get the following costs:

\$1,304,000 for hardware; this includes purchase costs plus maintenance from the time of purchase until the end of the six year period.

\$1,210,815 for software development; this is mainly staff costs.

Divided into the three phases just described, the costs break down is as follows:

Phase I - \$544,230

Phase II - \$548,500

Phase III - \$1,422,850

These figures may sound high but we actually suspect that they will turn out to be an underestimation. Dealing with the cost of library automation reminds me of Senator Dirkson's comment related to his service on the Joint Budget Committee: "A billion here, a billion there, and pretty soon you're talking about some real money."

91

Following are some footnotes to these cost estimates:

1. The hardware cost are based on current prices. The experts we have been consulting with expect prices to come down over the next several years for the type of equipment we expect to acquire. These reductions could be drastic, perhaps as much as one third. But to be safe we think it's wise to continue to base our estimates on current prices. In addition, we are not at all certain that the capacities that we have projected will actually be adequate to operate a system as complex as the one we plan to develop.

We should also look at some of the things that these costs do not include:

- a. Each library will bear the cost of producing its new cataloging in machine readable form through OCLC. Libraries will also have to bear the cost of any retrospective conversion projects that we undertake.

We will nevertheless have a very substantial database by the time the system becomes operational. State and Carolina have been cataloging through OCLC since 1975 and State has a conversion project underway. Duke is now getting started with OCLC cataloging. There are already some 300,000 records in machine readable form and these are growing at the rate of around 100,000 a year.

92

Another question that Mr. McKay has asked me to address is where is the money coming from? Of course that is also a big question for us at the moment.

We have "in the bank," so to speak, only the first year's Title II-C funding of \$220,000. We have requested second year funding of \$334,000, but have a written commitment of only the same level of funding as the first year, except for a small increase for inflation, in the range of \$10,000.

The total figure, however, is still open to negotiation and we still have hopes that the full amount requested will come through. In that case we will have the total \$544,230 needed for the first phase of development. For the moment, at least, we are acting on the assumption that this level of funding will be available. Beyond that, the picture is foggy as far as future phases but there are several avenues we have already begun to explore:

1. The Title II-C program will be a possible source of funding for Phase II. We certainly intend to continue submitting proposals as long as the program exists and has an appropriation.
2. We have received the enthusiastic support of John Cauldwell, President of the Institute of Advance Studies, for this project and he is in turn trying to

93

drum up support from organizations in the Research Triangle Park. This month we will meet with the heads of organizations such as Burroughs Wellcome, EPA, IBM, Research Triangle Foundation, Data General, and others in the Park who make heavy use of our collections.

We don't expect much in the way of direct financial assistance from these groups but there is some possibility of their loaning systems staff to work on the project and some of them may be able to help us out in the hardware area.

3. We will make a special appeal to organizations such as the Research Triangle Foundation, Research Triangle Institute and the National Humanities Center. In this case the approach will be a little different from what we have been doing with the business organizations. We will be trying to get their support and perhaps even sponsorship for grant proposals to private foundations, and I understand this is something they do very well.

4. Finally, there will be some institutional support from the Universities themselves. We already have some systems staff in the libraries and some money in the budgets, though small, that can be re-directed towards this project. It is possible that we will get some support from the institutions through contributed time

9

and facilities of the Computer Center or Administrative Data Processing. At UNC we should also be seeing some cost recovery effect in our library operations by the end of Phase II and we may be able to redirect some of these resources.

So, with these possibilities we are very hopeful of finding the means of carrying through with this ambitious project as planned. If these possibilities do not materialize we will continue the project anyway with our own resources but with the following effects:

1. The rate of development will be slower.
2. We may not be able to include some of the desirable but expensive features we would like to have in the system, including perhaps some of the capabilities for expanding and providing external access to the system.

As you see, this is something of a bootstrap operation. It will not be easy, but we are committed to it and feel that it can be done. I also want to emphasize, however, that the main budget priority in all three libraries is still funds for the purchase of library materials and the building of collections. This means that our requests for budget increases will continue to emphasize book funds, as this seems to be the principal demand of our users. Since I have responsibility for both areas at UNC-CH, I

feel very strongly both ways. This projects then, however important, will probably have to run second to the priority of book funds at least for the foreseeable future.

Now, I would like to discuss some of the general features of our plan, especially those that contrast with what I understand to be the public library planning in this area. Please note that I say contrast and not conflict because I don't believe that there is any fundamental conflict in our plans, especially we seem to be in agreement about the need for a distributed network.

1. The TULCC plan takes the position that the computerized catalog is the central system and that other systems, especially circulation, should be developed from the computerized catalog and not vice versa. In fact we may come to the conclusion that they should be interactive but separate systems.

In other words, we've decided that for academic research libraries at least, it would not be a good idea to make a circulation system serve as a substitute for an online catalog. We also believe that it will be difficult to upgrade online circulation systems as they now exist into online catalogs capable of meeting our needs.

Our main interest at this point is in bibliographic control, not inventory and circulation control. This is

a decision that is probably peculiar to the large research library and certainly would not necessarily be true for most public libraries, and we are not attempting to force this direction on any other type of library.

2. Secondly, we are going the way of local development rather than purchasing a turnkey system or software package. This is not to say that we intend to reinvent the wheel, because we do hope to find some suitable software to import and adapt for various parts of our total system. But we do feel that it is important to have local control of the ongoing operation of the system and its future development. We have a pretty demanding user group, particularly among the faculty, who have already begun to show a great deal of interest in what we are doing and the only way to satisfy them is to design our own system. We have simply concluded that this is the only way to go in this situation. This is something that may not apply, however, when we move into automation of circulation. It is possible that if circulation were our main concern we would be looking seriously at commercial systems.

3. Third, we are concentrating our resources on developing the system itself and not on the conversion of records, which I understand is of great interest in the public library sector. We are talking about total collections

97

of over 6,000,000 volumes in the three libraries and conversion is going to be a very longterm project. In fact, conversion may never be completed for some parts of these collections. If we put most of our resources into conversion now, the development of the system to make use of these records could be a very long time in coming. Besides that, we are continuously building a useful database of the most current and most used materials through our ongoing OCLC catalog.

We do consider conversion to be very important, however, and it is a strong second priority in this project. If we do happen to get any windfall funding for conversion we definately wouldn't turn it down, and once the resources are in place to develop the system we will turn our attention to finding resources for conversion projects.

4. A final point of contrast. We are taking the approach that our online catalog must be developed in the context of membership of a regional and national network. Thus, our plans are to remain members of SOLINET and OCLC.

We need access to a national database both for cataloging and for location information. And we in turn feel that our own collections should be represented in national online bibliographic utilities.

Where we do part company with regional and national networks, however, is our conviction that the local catalog which our users need to gain access to our own collections ought to be developed and operated at the local level and not by an organization as far away as Atlanta or Columbia. This rationale was laid out in detail in our Title II-C proposal, and those who reviewed the proposal did not find it in conflict in any way with planning for national network development. I should say, however, that our present official position, like that of any cooperative enterprise, may not represent the views of everyone associated with this project. There is indeed some disagreement among our group on some of these points, but I do not think that it is severe enough to threaten the future of the project.

So, this is an overview of the TULCC plan for a computerized catalog: I am not sure what the implications are for statewide library development because I have only a very vague idea of what planning for statewide library network is at the present time. But I do think that two things can be said with some certainty:

1. The TULCC project will make the library resources of the major research libraries in the Research Triangle area more accessible throughout the state and could be a step in the direction of eliminating the need for the manual

90

union catalog. And we certainly know from experience at Chapel Hill how expensive and burdensome such a catalog is to maintain.

I think, in particular, if we provide the subject approach to our collections through COM and dial-up access, it will promote the use of these resources on a scale we have never experienced before.

2. Our plans are not aimed primarily at a network serving users beyond our own institutions, but are intending, as a top priority, to provide online catalogs to our own collections for our own users. It has networking potential and we hope that that potential will someday be useful to others in the State. But our having the system does not preclude our joining in some other form network development with other types of libraries.

3. Third, our plan is an open and flexible approach which does not lock the rest of the State into any particular course of development. It will simply be another option to libraries in the state as they move into the area of computerized catalogs.

Thank you and I will be happy to answer any questions you may have.