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ABSTRACT

The New England Library Board presents the oral and written testimony given to the National Commission on Libraries and Information Science (NCLIS) at a hearing in Boston, Massachusetts, October 3, 1973. Witnesses include college, university, state, public, special, regional, and school librarians, as well as library trustees; educators; a mayor; researchers; a newspaper editor; and officials of information networks, state education offices, consortia, state library commissions, and commercial information services. Testimony centers around the topics of networking, priorities for service, national and regional resource centers, service in rural areas, new technology, interlibrary cooperation, the Library of Congress as a national library, federal legislation, and the role of state and federal governments. Witnesses represent the states of New Hampshire, Massachusetts, Maine, Rhode Island, Vermont, and Connecticut. A draft of the NCLIS national program of library and information service, dated October 1973, is appended. (LS)

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YANKEE COMMENTS

Testimony
submitted to the

NATIONAL COMMISSION ON LIBRARIES AND
INFORMATION SCIENCE

October 3, 1973
Boston, Massachusetts

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of the
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INTRODUCTION

The National Commission on Libraries and Information Science, in pursuit of its responsibility for planning "library and information services adequate to meet the needs of the people of the United States", has held a series of regional hearings to obtain the views of interested persons. One of these, for the New England area, was held at the J.F.K. Federal Building in Boston on October 3, 1973. Believing that the statements submitted and the discussions held will be of interest and value to many who could not attend, the New England Library Board has undertaken to publish them in this form.*

In inviting the submission of written testimony prior to the hearing, NCLIS suggested that participants might wish to focus their comments on one or more of the following topics:

1. National networking of libraries; its nodes and linkages, membership, purposes, responsibilities, governance, support.
2. Priorities for service. Development of service to the unserved vis-a-vis those who need access to definitive or comprehensive collections.
3. Criteria for designation of proposed national and regional resource centers.
4. Means and methods of providing service in sparsely populated areas.
5. Utilization of new technology to promote improved library service and interlibrary cooperation.
6. The Library of Congress as The National Library; its responsibilities and authority.

Much of the discussion reported in this volume therefore deals with these and related subjects.

*The Illinois State Library published the written testimony submitted to the Chicago hearing of September 27, 1972 (In Our Opinion, 1973) and the records of all the hearings are being produced by ERIC in microfilm and print-out form.

Expected participants were also requested to assist NCLIS in developing a national planning document by answering the following questions:

1. Why is new Federal legislation for libraries needed?
2. Are there inequities present in today's system?
3. What reasons compel the government to consider interconnecting the libraries and information centers of the nation according to a national plan?
4. What should the Federal investment policy in libraries be?
5. What responsibilities would the Federal Government have toward the development of a national network?
6. What are the state government's responsibilities toward a national network?
7. Why should a state want to belong to the national network?

The first draft of the proposed national program was released and circulated just before the hearing. Since frequent reference to it occurred during the proceedings, it is reproduced here as an Annex.

The material in the present volume follows the order of the hearing itself, but in cases where written testimony was available in advance, that statement has been inserted, in italics, immediately preceding the related oral testimony. The record of proceedings is based on the shorthand reporters' official transcript, as corrected by the testifiers themselves (who were requested not to change or add to the substance of their remarks). The editor has limited himself to deleting conference formalities and repetitions, and correcting some grammatical slips and infelicities. An alphabetical index to the names of testifiers appears at the end of the volume.

The following members of the National Commission on Libraries and

Information Science participated in the hearing, and their comments and questions are included and identified in the text. It was not feasible, however, to invite them to edit their remarks or to include them in the table of contents.

Dr. Frederick H. Burkhardt, Chairman
President of the American Council of
Learned Societies
New York, New York

Mr. John Lorenz
Deputy Librarian,
Library of Congress
Washington, D.C.

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Association and American Library
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Iowa City, Iowa

Mr. Louis A. Berner
Publisher
Berner Home Newspapers
Chicago, Illinois

Mr. Charles H. Stevens
Executive Director
National Commission on Libraries
and Information Science
Washington, D.C.

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PROCEEDINGS

Chairman BURKHARDT: I would like to welcome you all and say it is very good of you to come out on a dreadful morning like this. Let us have the first witness then, who is Mr. Stevens W. Hilyard, Librarian of New England College, Henniker, New Hampshire.

I should say that we try to keep these hearings as informal as we can. I don't think you need read the testimony that you sent in because the members of the Commission will have read it and they will have their questions, but if you have anything you want to add to what you said, please do that now and then we can ask our questions.

STEVENS W. HILYARD
Chairman, New Hampshire Library Council
Librarian, New England College
Henniker, New Hampshire

WRITTEN TESTIMONY

I am pleased to be able to submit an opinion to the NCLIS on one of the unmet needs of the people of New Hampshire for information services. I believe but cannot verify, that these needs are also felt in Maine and Vermont.

Problem: The statewide public library community lacks operating systems to share out to all users and potential users the resources available within the state, because of the dearth of talent and financial incentives to create such systems.

The statewide academic library community (numerically very well represented by the New Hampshire College and University Council - founded Dec., 1966) lacks finances (and therefore staffing) to proceed beyond moderate levels of cooperation.

Components of the problem: Only 13 out of the 250-odd public libraries have a professional librarian on the staff. Though by no means uniformly true, the great majority of non-professionally staffed libraries operate at a most modest level. Thus they are a low-priority budget item locally, resulting in their continued inability to upgrade services or materials.

A non-problem component is my belief that sufficient variety, extensiveness, and recency exists in information sources in the state to answer all reasonable requests made on them, with the exception of a variety of graduate academic programs.

A major part of the problem is the paucity of identification sources - union catalogs, union serials lists, directories, registers, etc. Its reciprocal problem is that what does exist is little understood and not widely used.

Stated simply the problem is to identify what the user and non-user really want; to be able to find out where the desired material is, and then access it for him/her.

Granted: Sharing of materials and non-duplication of materials offers the best hope to beat the nightmare vision of 200 small public libraries and 20 medium academic libraries all replicating each others mediocre collections. Sharing requires incentives - cash or services in lieu of cash. Revenue sharing does not work for libraries as a funding source for a galaxy of reasons, all tied to the library's low profile and resultant low priority.

Proposed solutions: Any monies coming into the state for libraries should channel through the State Library Commission, the State Library's Advisory Council on Libraries, or the New Hampshire Library Council. It will be allocated to demonstrated co-operative activities with greatest weight given in descending order to:

- A. Co-operation between dissimilar types of libraries - money for servicing the sharing network, not for materials.
- B. Co-operation between similar types of libraries - money for servicing the sharing network, not for materials.
- C. Co-operation between dissimilar libraries - monies for materials not presently within the system.
- D. Co-operation between similar libraries - monies for materials not presently within the system.

Examples of A. and B. - free interlibrary loan mailing privileges; free telephone calls (credit card or collect service); creation of more union lists, directories (see enclosed Special Collections and Subject Area Strengths in New Hampshire Libraries, 2nd ed.*); free reference service by mail or phone to other than State Library; duplication and dispersal of N. H. State Library's Union Catalog.

Examples of C. and D. - microfilm periodical collections; creation of ethnic language and literature collections (French Canadian in Maine, N. H., and Vermont); upgrading and coalescence of existing collections so that there exists at least one strong collection in every reasonable subject area within the state.

Afterthoughts - Other very real problems prevent the people of N. H. from receiving the library services which they deserve. I do not mention them because I do not believe them to be amenable to external solutions or aid. Other problems which are amenable to a federal commission's suggestions for aid and solution I am certain will be dissected well by my many colleagues and friends in the region. Thank you for this opportunity.

* Not reproduced here.

Mr. HILYARD: Thank you very much, Mr. Chairman. I read with great interest the document which came in Monday, a draft of a new national program, and was rather pleased to see that the thoughts in this draft regarding the necessity of systems rather than materials were in line with some of my own. It is nice to have one's biases supported.

I have one question regarding the draft. The word "access" is used sometimes as a verb and sometimes as a noun; when it is used as a verb, does it literally mean to produce at the point for the patron the material that may exist in a distant location?

Chairman BURKHARDT: Well, I believe it is used in a technical way and perhaps you can --

Mr. STEVENS: It may, yes.

Mr. HILYARD: Depending upon the context, Mr. Stevens?

Mr. STEVENS: Yes.

Chairman BURKHARDT: I have objected to using it both ways, of course, but I don't get any place. I am only the Chairman.

Mr. HILYARD: I have nothing else that I think I would like to get into now. I see the sound is coming up.

Chairman BURKHARDT: Well, now your paper gave a pretty good picture of the state of affairs in New Hampshire and you have mentioned various problems for cooperation between different kinds of libraries, but now perhaps some of the members of the Commission have a question.

Mr. LERNER: I notice that in one of the paragraphs of your paper, Mr. Hilyard, you mention that only 13 out of 250-odd public libraries in New Hampshire have any professional staff.

Mr. HILYARD: I believe that is a correct figure, even though I am speaking out of some admitted ignorance, not being on the state library staff or a public library staff.

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Mr. LERNER: But it is approximately true then, I am sure. Let me ask you this question: Do you think that this Commission should address itself more to the problem of training non-professional staff, and what function do you think that we could fulfill on a training and personnel basis with this kind of problem? You are not going to end up with professional librarians in 250 libraries.

Mr. HILYARD: Not at all, not at all, and I don't know that any specific change would be brought about by a federal program. The communities get what they pay for, and they pay for what they are willing to pay for. The moderate or mediocre or non-existent library services in the community, with three or four hours opening a week and a very pleasant lady who does her very best, do not bulk large enough in the public's mind to generate any thrust toward a better service or more money. Therefore, there being large pools of unemployed librarians now says nothing to that very real problem for us.

Mr. WELDE: Would it help at all if the Commission would let a state know what is being done in other states? I know some of your problems and I think they have been experienced by other states that have taken a little more definite action to try to correct it with financial support and actual grants from the state on a per capita or on a square mile basis. Those plans vary, but I wonder if in any way the Commission could help various successful plans be known.

Mr. HILYARD: Yes, I think a broad publicization of successful programs would be helpful, but only to a limited extent, because I would be insulting our great State Librarian, Bill Allen, if I said that he did not know what was going on in the nation. He experiences frustration and sorrow that he does not make any greater impact on the state-wide library services than he and his staff do.

New Hampshire is, I hope, not peculiar but it certainly has not seen fit to fund the level of the human services. As you may know, it is the only state in the country without a broad-based tax. Some people think that is a good thing. The borrowers and users do not.

Ms. WU: I am very sympathetic with your situation because I came from the Los Angeles City schools system, which is almost as obsolete as your state with respect to library service. I have a couple of questions.

First of all, with regard to what Mr. Lerner just asked, does your state have any stipulation in the educational code concerning your library service or library standards?

Mr. HILYARD: We do not have a job certification and career ladder. Does that partially answer your question?

Ms. WU: That is provided in the state code, the education code, right?

Mr. HILYARD: That is absent from the state education code. Therefore, we find school librarians with no librarian training.

Ms. WU: That's right.

Mr. HILYARD: They are library sitters, obviously. I don't mean to paint the grimmest picture. There is at present a road show of the State Librarian and the State Commissioner of Education and it will be finished at the end of this month. There are public hearings being held throughout the length of the state, trying to ascertain if there is public support which would exercise itself at the polls and in a referendum to raise the money to upgrade the system. But no, we do not have the legislation, even if we had the money.

Ms. WU: I see. What about your professional association? Do they have any standards?

Mr. HILYARD: The New Hampshire Library Association does not have any standards and they don't have a Committee on Certification and Career Ladder.

I am chairman of the New Hampshire Library Council, which is the umbrella organization of eight library organizations in the State of New Hampshire, and we do have a committee, but it does little more than talk to other members of the library community at this juncture.

Ms. WU: One more brief question: How do you classify dissimilar libraries and similar libraries?

Mr. HILYARD: I would classify them as cooperation between academic libraries and school libraries and public libraries and special libraries.

Chairman BURKHARDT: I believe you said something about the tax base for the libraries. How are libraries actually financed, by local taxation?

Mr. HILYARD: Yes, sir. The bulk of financing is done on the property tax, on the real estate tax, and that, as you could guess, makes it very difficult at the local level for the school boards and the library board of trustees to produce a warrant for the town meeting. We are at that level still in New Hampshire. That requires an expenditure of more money.

Mr. AINES: I read your paper with enjoyment and I find some rather interesting comments, but more interesting is something I read between the lines or do not read. For example, you talk about the problems of the librarians, the problems of the libraries, you have some suggestions for improvement and you have a statement in here, however, that I think is a key question. It is in your afterthoughts area - the first sentence - where you say, "Other very real problems prevent the people of New Hampshire from receiving library services they deserve." It is this latter clause that I am concerned with, "the services that they deserve."

Somewhere in here you talk about providing union lists, directories, free telephone calls, mailing services, What I would like to know is: What do the people of New Hampshire need and really want?

Mr. HILYARD: I will have to be speaking in some sort of a knowledge vacuum, if you will excuse that expression, because I am an academic librarian and I therefore have a captive audience. The library services that are deserved by the citizens of the State of New Hampshire are those that are deserved by any people, and that is access to the information and physical tools in which the information is housed that exist in the state regardless of the political affiliation of the borrower; that is, a public library patron should be able to have access to the books in a college library, even though he is not a student perhaps, regardless of the political affiliation or the physical location.

The problem in the state is, I think, simply one of there being sufficient informational sources at everything but the upper educational level but no propensity or capability to share those out; and the mere problem of distance or ignorance of the existence of information precludes, I would suspect, a good deal of very real use which would be of inestimable benefit.

Did that answer your question or did I talk around it, sir?

Mr. AINES: Yes, a little bit around, but perhaps you can handle it this way. I am hung up with the words "require, deserve, need and want."

Mr. HILYARD: All right. I notice that the draft proposal speaks on the second or third page as if everything that anyone wanted would be forthcoming to him. I am not perhaps as generous as that. The ability to give everybody what they want may just be something we can't pay for. However, we should support legitimate needs, where one draws a line between legitimate needs and frivolous needs or needs generated by curiosity -- they may be the same thing. I am waffling around here and I apologize. I am uncomfortable dealing with these words, too.

Mr. LORENZ: Is there state aid for public libraries in New Hampshire?

Mr. HILYARD: There has been state aid for public libraries coming out of the state library, Mr. Lorenz. To my knowledge that has been terminated because it was federal money that was being shared out by the state library.

Mr. LORENZ: So the state does not raise any tax money for public libraries then as far as you know?

Mr. HILYARD: No, it does not, Mr. Lorenz.

Mr. LORENZ: Have there been efforts that have failed?

Mr. HILYARD: Would you specify that? What type of fund-raising efforts?

Mr. LORENZ: Has there been legislation proposed for state aid that has not been successful in the past?

Mr. HILYARD: No, I don't believe so. There have been political campaigns run on the basis of a broad-based tax. Those individuals are not in the Governor's mansion now. Therefore, legislation is at this point a moot question.

Mr. LORENZ: Do you have some general information as to what has happened to the revenue-sharing funds that have come?

Mr. HILYARD: Yes. I look in the Concord Monitor, Concord being the state capitol, with great interest every time that little photocopied blowup is published and I see that we are buying fire engines and refurbishing community centers and paying off the sewage debt, but we are not supporting libraries; and it is not a valid way of supporting libraries. It is a lottery in which the library does not even have a ticket.

Mr. LORENZ: Are the University of New Hampshire and Dartmouth libraries used as resource libraries in the state?

Mr. HILYARD: Very helpful; and in the past they have both been paid cash grants by the state library to help defray their being more a lender than a borrower.

Mr. LORENZ: Is that continuing?

Mr. HILYARD: To my understanding, no, it is not.

Mr. BECKER: Mr. Hilyard, in your paper you indicate that if federal aid were forthcoming, it should be channeled to run to three different organizations in the state. What are the pros and cons of each of those three?

Mr. HILYARD: The New Hampshire Library Council is an organization of organizations and perhaps its membership, which is the president and vice-president of all of the constituent organizations, most broadly represents the library community in the state. It consists of friends and trustees as well as practicing librarians in the various areas. The state library obviously has both the manpower and the experience in doing this, and yet they are not as broadly representative as the New Hampshire Library Council.

Mr. BECKER: Is the Council a government body?

Mr. HILYARD: No. The Council is a self-generative body, Mr. Becker, which has no legal standing, is not incorporated, probably could not receive and disburse monies. That is a mechanical problem only. The third group is the State Library Commission, which is chartered and charged by legislation to be responsible for the library system in the State of New Hampshire. A parenthesis should be put halfway through that sentence and say "public library." They, however, are state librarians' bosses and could more generally be seen as having the responsibility.

I was trying to get at the problem that we have felt in New Hampshire and I am sure other states have felt as well for years. That is, the criteria that come in from Washington are very often irrelevant to us. Grants for minorities are something we can't touch because our French-Canadian population is not considered an ethnic minority; we don't have Puerto Ricans and we do not have blacks. We do have a very real problem with the French-speaking, French-Canadian population. And we are, if I may say, a little suspicious of criteria developed and channels developed outside which are so

distant from us that they don't understand what our real needs are.

RONALD F. MILLER
 Director, New England Library Information Network
 Wellesley, Massachusetts

WRITTEN TESTIMONY

Since, in my opinion, the comments and testimony which I submitted on NELINET's behalf to the Commission in Washington, D. C., in October 1972 still are valid, it would be a disservice to the Commission to reiterate those remarks here. I have followed the guidelines sent to me by the Commission, emphasizing those areas of particular application to the New England library community and NEBHE's role in providing cooperative services to that community.

The Commission has specifically requested that respondents should, in part, address themselves to seven questions concerned with the relationship between libraries and the Federal government. These questions are re-stated below, followed by my comments.

1. Why is new Federal legislation for libraries needed?

Current legislation as embodied in LSCA Title III and HEA Title II authorizes funds to be used for cooperative library development under fairly specific conditions. LSCA monies in this area have been channelled for administrative purposes through state library agencies and have been, therefore, allocated by those agencies primarily for in-state cooperative programs rather than interstate planning and development. In New England, a precious small amount of these funds has been designated for support of the New England Board* by state library agency administrators, and none has been allocated directly to NELINET. This situation is understandable when one realizes that the mission of each of these agencies is to develop appropriate services within state borders.

The HEA monies, on the other hand, have been devoted primarily to collection development among developing institutions, rather than toward long-term network planning and development. NELINET members have not used NEBHE for access to these funds for several years because the guidelines for their use do not fit NELINET's mission.

It is, therefore, my feeling that new legislation, or amendments to existing legislation, must provide ear-marked support to those agencies which are committed to the development of interstate library services. NEBHE has long been the forefront of this approach, unsupported by a continuing federally-sponsored program of planned and continuing commitment on the part of Federal agencies. Each project developed by NEBHE and other regional agencies must seek its own development funds from several sources, in competition with local libraries and state agencies. NEBHE has done very well in this milieu

*It is my understanding that the NELB members intend to submit their own testimony which should be viewed as another part of the regional library picture in New England.

during the developmental phases of NELINET and other long-range funds are needed to accelerate the development program. For the users and non-users of the region's library and information services, for as far as NELINET is concerned these monies should be allocated on a matching basis on the order of \$100,000 per year over three to five year periods. This level and type of funding encourage long-range planning, and assurance of such planning should be a prerequisite for eligibility for these funds.

2. Are there inequities in today's system?

"Today's system" is an ad hoc system of libraries and information centers which is not a national library system. It is a hodgepodge of resources, with no overall coordination, except for an ad hoc basis. The Commission believes that such a situation is not only inefficient but also inequitable. The Commission is concerned with the distribution of resources and the quality of service. The Commission is also concerned with the development of a national library system which is based on a national library system. The Commission is also concerned with the development of a national library system which is based on a national library system. The Commission is also concerned with the development of a national library system which is based on a national library system.

The interconnection of such centers is one answer to a complex of previous questions which have not yet been adequately researched.

The interconnection of such centers is one answer to a complex of previous questions which have not yet been adequately researched. An oversimplification of these questions could be, "What is the best way to reduce redundant labor-intensive work within and among libraries, which would at the same time preserve rational local variation and provide relevant services to the users of the nation's library and information resources?" If the result of a series of short, concurrent and articulated research projects recommends that interconnection of libraries and information centers makes sense economically, then the obvious context in which such intercommunication should be developed is within a federal or quasi-federal agency with full-time human and financial resources to bring it off. In any event, the principle of consensus and participatory development should be adhered to, not only to ensure maximum personal and institutional cooperation, but also to ensure that local long-term support can be generated to sustain such a system. Otherwise the program may be viewed as Federal meddling, external to the real needs and desires of both the regional centers and their users.

One last point. A period of haphazard growth of cooperative networks building is now vigorously underway. The coordination of these activities cannot be haphazard or undertaken by persons unqualified for the task because of time, conflict of interest, or inappropriate experience. The Commission is the ideal agency to carry out this objective, since it is composed of professionally responsible individuals who are not primarily associated with carrying out Federal policy; quite the contrary, the Commission is viewed as the maker of such policy.



4. What should the Federal investment policy on libraries be?

Federal funds should be awarded primarily upon a local matching basis for amounts over, say, \$25,000. Multi-institutional or multi-state enterprises should receive priority consideration, with the exception of developing services to unreached segments of the user population. If the latter approach is undertaken by an existing regional or state agency, so much the better. The overall concept carrying the greatest weight among funding criteria should be evidence of sharing of human, fiscal and physical resources.

5. What responsibilities should the Federal Government have toward the development of a national network?

The responsibilities, as I view them, should be carefully phased. Phase I should be the setting of goals and objectives; what the Commission is, in fact, doing now. Phase II should be the commissioning of user-oriented studies directed toward obtaining a base of reliable information upon which public debate can be built, both within the library community and among those professions and crafts which librarianship needs in order to underpin its own development, e.g., technologist and user groups. Phase III should be a series of "specification papers," comprehensible within the vocabulary of most librarians and information specialists. Phase IV should move into developing governance structures, technical specifications and RFP's from specialists. These phases should last 2-5 years, after which a legislative program for national implementation should be involved (having been built concurrently during the earlier phases), and pilot systems installed. These pilot systems may, in fact, already exist and merely their interconnection be undertaken as a major technological and governance problem to be solved.

A major caveat which should be observed by the Commission is not to build such a dependency upon Federal support that its withholding would cripple a national system. Luckily, during recent Federal retrenchment of library funds into revenue-sharing, the "national system" was largely unaffected because it had not yet developed. Such Federal reallocation should not be permitted to undermine a vast network of federally-dependent libraries.

6. What are the state government's responsibilities toward a national network?

Since earmarked funds from the Federal Government are passed through state agencies into the library community, the danger that such funding may be "de-earmarked" always exists. In preparation for that contingency, state governments should be deeply involved in underwriting certain operating monies to support on-going relevant services which could conceivably be cut off from Federal support. A "habit of state support" must be built, as in some cases in New England where state legislatures have been enlightened enough to cover the loss of Federal monies.

NEBHE's preference in these matters is to have some state monies channeled into a regional agency, such as NEBHE, because more return on the dollar is possible. Dollars are pooled thereby, and the region as a whole benefits from regional approaches to answering specific classes of problems. It should also be noted in passing that some classes of problems should not be approached regionally for a great variety of reasons.

The same principle is beginning to develop within the New England Library Board, of which NEBHE has been a strong supporter, thereby tapping alternative sources for regional library development.

The responsibilities of the states toward a national network is enlightened self-interest, whereby in-state goals are met, in so far as possible, by means of regional and national networks.

7. Why should a state want to belong to the national network?

To open the access of its population to nationally available resources on a quid pro quo basis; to pool financial resources toward the attainment of common goals; to break down parochial barriers between states which could enhance cooperation at other governmental levels; to ensure collective political strength and leverage upon Federal and state library policy and support.

In summary, what I think is needed is an equalization of library access and services whether characterized as rural, urban or sub-urban; whether academic, public or private. Very specialized services should be preserved, but built around a standard core.

Some concluding comments about areas of concern to the New England Board of Higher Education and its regional programs of library and information services:

1. The Commission should be prepared to advocate the allocation of Federal support through the New England Board of Higher Education, in the same sense that the National Science Foundation has done. NEBHE is neutral ground, unaffiliated with any one state or any particular political interest. It already has good support from the several New England states by itself, and this regional commitment should be matched by Federal dollars, since the region itself has proven its commitment. If other interstate library agencies can provide similar commitment, they too should be eligible for similar support.

2. NEBHE has firmly committed itself to open cooperation with other regional library programs, and, for example, has devoted a good portion of its energy toward the establishment of the New England Library Board. One agency cannot do all that needs to be done, however, and I feel that we have built a firm base of cooperative action.

3. An area of research needing support which is applicable nation wide, is the provision of cooperative services to the private commercial sector of library and information services. Both NELINET and NASIC have shied away from this question, but we recommend that the Commission seek IRS counsel in this area, if all libraries are to be involved in the national network.

4. Another area requiring Federal help is the detailing of a unified communications system at the lowest cost for providing non-profit cooperative library services through electronic networks. The hodge-podge of GSA Telpak, state Telpak arrangements and interstate tariffs is bewildering and complex. The FCC should be involved in this investigation.

5. It is my view that the Council of Regions associated with the Ohio

College Library Center) and the Council of Library Resources are already concerned with a variety of inter-network problems, namely standards, financial support, and governance. It is time for the Commission to involve itself in these activities directly as a prelude to defining its own role in these activities.

6. I think it should be stated explicitly that NEBHE and its NELINET members stand ready to participate directly in the Commission's field investigations, particularly in the area of user studies and network impact studies upon the practice of librarianship. In that way, we may well be in a position to participate in the drafting of legislation which is directed toward attaining our own goals as well as those of the Commission.

Mr. MILLER: Good morning, Mr. Chairman, members of the Commission. I had thought to divide some preliminary comments into three areas, but I see there is a lush base of questions, so I am going to truncate that strategy and merely make a few statements at the beginning and then leave myself open. I must say that we are grateful that you are here for one reason: You are already giving us something, which is to say a forum, through which we ourselves can see how we look to others; and we have, therefore, made it a point to have staff here all day to see if we can get a sense of what the regional problems are ourselves.

I reviewed the reports which described your hearings in Chicago and San Francisco and a rubricated statement of Mr. Citizen being absent at some of those hearings, I hope, has fixed this today. I am not sure whether you are going to have lay people here in response to your public hearings in the middle of the day.

One or two comments about my written testimony, and then I would like to make an observation concerning your draft of the new national program on libraries and information science, and then I will be open for questions.

The two assumptions that I make, or at least which evidence my bias, are that information services should not be an elitist enterprise for a small defined group of people but will include all members of the population

in some way. I think the Commission has given evidence of its view on this. In addition, I have a heavy concern, as you know, toward solving some of these problems of service and access through regional, interstate cooperation. We will have further statements to make this afternoon through Dr. Alan Ferguson, who is the Director of the parent organization under which NELINET functions, the New England Board of Higher Education.

In your questions mailed out to us sometime back and replied to previous to our submission of written testimony, you asked, "Why is Federal Legislation Needed?" It appeared to me that the provision of money to local libraries from federal sources should carry some further caveats than ever existed in previous legislation, and that is so that resources purchased with federal money may be available through open access or inter-library loan as a precondition.

I do put an intermediate step in there or a qualifier which may be closer to reality than the general goal of open access to everyone: "Users" should mean the user population, which should be carefully defined for each library so that we know the extent to which public access or open access is possible. Furthermore, interstate organizations which have firmly committed goals toward resource-sharing beyond the capability of any single state should receive high priority in support formulae.

There are two such organizations in New England with varying missions. One is the New England Board of Higher Education NELINET program, and the other is the New England Library Board, which I think you will hear more about today.

Evidence of commitment to national standards within these contexts -- for instance; bibliographic standards -- should be an a priori condition for such funding for two reasons, I feel. The first is obviously that it will facilitate national network development and coordination, if and when it

comes, and I am convinced it will come. Also, by extrapolation it imposes similar standards within the interstate region itself.

As to the inequities in today's systems, my initial response is one of sidestepping the issue by saying that I really don't know what the system is today, but I will go out on the further limb and say in general that access is discriminatory -- "access" here meaning the ability of a member of the general population to get whatever he wants, wherever, whenever he wants.

It is quixotic and, therefore, not really predictable by users whether or not they can get the same kind of service in one city or one school public library, etcetera, as they could in another. This is particularly a problem because of population mobility and the expectations that are built as people move.

With respect to the question of user distance, which has been raised in another context, too, notably, in your draft document, the assertion that such access or use of library sources should be distance-independent is a principle under which NELINET operates at least as far as the sharing of telecommunications cores are concerned, and it has been received without question. The payment for making such activities distance-independent has not been questioned, even though on the surface of it, it appears to be inequitable.

With regard to the question of what reasons compel the government to consider interconnecting the libraries and information centers of the nation according to a national plan, the obvious answer occurs quickly to me, which is that for optimizing the sharing of resources in more than just an arbitrary political area, but it does relate to tying together of such regions. I think it has to be carefully protected. I think recent history in such connection is: Federally funded or supported or controlled, the connecting systems should require political candid guidance and advocacy so that such

legislation and funding relating thereto cannot be arbitrarily withdrawn, thereby leaving such a national system in a bit of a quandary.

As to the responsibilities of the federal government toward developing a national network, I think the analogy of information highways, that is, telecommunications switching protocols and such things which occur necessarily between electronically connected networks, is an area that must be addressed at that level. There are groups beginning; there is one called the Council of Regions, which is nationwide but very restricted in its membership at this point; it is made up of groups that have some kind of alliance with the Ohio College Center Library Systems and, therefore, its purview is limited.

I am concerned about the work of this group because the context in which it operates is not agreed upon even by the participants in that group. If you want to know more about it, I will be glad to answer questions.

Chairman BURKHARDT: You make the point that in building a federal or a national system, the federal component ought not to be such that the regions or the states become dependent upon it, and not, if it were withdrawn, it would cripple the system. Well, I find it pretty hard to imagine a system with federal input which wouldn't be crippled if federal assistance were withheld, because the federal part is likely to be functional as well as just in amounts of money. There are going to be services and functions that depend upon the federal level. With the withdrawal, it is likely to cripple the system. I don't know that you can avoid it.

Mr. MILLER: Well, then it should be clearly understood by the participants that that is a likelihood. What that does is increase costs in the short and continuing run because people will necessarily want to have backup systems which are local in nature, I assume. We can see this in

NELINET now: if a system goes down, for instance, and they cannot provide

service for a particular length of time, they are affected and could be crippled.

Chairman BURKHARDT: So you think that safeguards should be provided?

Mr. MILLER: Yes, sir.

Chairman BURKHARDT: I am afraid you cannot always avoid the possibility of that happening.

Mr. LERNER: I want to ask you what essentially is a negative question. You are involved in a great deal of interstate cooperation and institutional cooperation, while what we are looking at is possibly a mandate to work more in cooperation across state lines. What are the pitfalls that we have to watch out for and where will the basic resistance come from?

Mr. MILLER: You are asking this in the context of interstate cooperation?

Mr. LERNER: That's right, or an inter-institutional cooperation.

Mr. MILLER: It is a complex question but a very important one. The pitfalls are in a sense revealed in the draft document that you distributed. I think the Commission is viewing its pattern of support through the federal service and state service and there is no intermediary level. At least there has been no mention of such political entities being a named or viable source for this kind of activity. This makes us a little uneasy, I must say.

The pitfalls, I think, are attitudinal and in the area of governance -- attitudinal in the sense of local autonomy being viewed as lost to some degree. I think it is a mistake to assume that local autonomy is not lost.

Secondly, if financial resources are allocated to a facility outside a local institution, that reduces to some degree the local autonomy or ability to use that money for their purposes. There is, I think, a feeling of this.

In other cases, I think there is a general fear of change or uneasiness about change when the future is so uncertain. These uncertainties are

by far, I think, the greatest barriers that we have encountered.

The governance area addresses itself to the question: If I join a network or consortium or group, what say do I have in what that group does to me or does to other people? How much of a commitment do I have to make? When a commitment gets beyond the level where it can't be hidden in an existing budget item, that is when the problems begin with respect to the internal institution, because all of a sudden it appears as a line item and, therefore, it can be dropped possibly.

In general, I think that special libraries, research libraries, view their problems as different orders of magnitude and, therefore, there is the pooling of cooperative enterprises between vastly dissimilar libraries. It is said that this is really not what our enterprise is all about, and I think that goes counter to the general thrust of what I believe and what the Commission feels its mission is as well. There are other points, yet those occur to me quickly.

Mr. AINES: I would like to get your guidance on this question and I hope you can illuminate it.

As I look into the future on networking, I see a difficulty arising where, in order to create the kind of function we are searching for, we are creating a political or a politically-oriented community throughout the states that in turn would be monitored by a federal group. Since funds would be involved, there would have to be this kind of organization. So we see the establishment of an overhead requirement in order to achieve our goals, and you rightfully have pointed out that there are some dangers involved along this line. Nevertheless if we want to reach sharing of resources and interconnections, something must be done.

How far would you go then in superimposition of a political superstructure in order to accomplish this end?

Mr. MILLER: I only know one end of the continuum, to answer the question of how far. I know nothing is zero, but what the other end is -- I assume merger of all states -- or where the other end of the scale is in terms of the political state or overlay, I don't know. I think your first instinct to work through existing political entities is a reasonable way to go. The thing I am concerned about is that at the state level there are different orders of investment in library operations or library support, and when the draft paper asserts that responsibility for local, in the sense of state, financial support must be forthcoming to match the federal contribution on some kind of formula basis, I think you will probably run into the same kind of problems that have occurred with other programs where such monies were allocated in different ways, because they were not earmarked as well.

I do say, though, that there is good reason to interpose yet another overhead level, namely, the regional area, and I have already said this and I think you know my position on it. It does take overhead, but at this point the relationship of our regional organization to the state library agencies who would administer money is not clear at all. We do not pass money to them; they do not pass money to us directly.

What they have done in some cases, and I think this is a notable pattern which has grown, is that this permits the local regional libraries to do certain things, and the things that those local regional libraries would want to do involve participation in the network, so in that sense we get it directly. I don't see it as a widespread pattern, but it is not one that does not threaten some political autonomy from existing political institutions.

Mr. CASEY: Mr. Miller, for a number of years you have had experience in receiving Library Construction Act funds in New England. How have you

been spending the LCA funds?

Mr. MILLER: Do you mean the region?

Mr. CASEY: Yes.

Mr. MILLER: I think that is a question that should best be addressed to the representatives of the Interstate Library Compact administrators - the New England Library Board - as opposed to myself. We are not administrators of that money.

Mr. CASEY: Do you have some experiences that you can relate from the various states, though?

Mr. MILLER: Well, I can give some examples as to where some of these monies have been allocated. It will only be partial, however:

For example, there is the funding of teletype networks which, when withdrawn, may or may not be assumed as a cost of the participating libraries. This has occurred, I know, in at least three states; others have gone to intrastate regions for purposes of promoting cooperation. I am talking now about Title 3 primarily. But very little has gone to support interstate activity, even though that was one of the uses to which this money could be put, and there is a good reason for this.

The state library agency primarily, principally is the state, and that is legislatively mandated; and if they can do anything more than that, it has got to be shown that the states derive some benefit from it. That is an incomplete answer, and I think there are others who will be able to give you a much clearer answer than I have on this.

MURIEL TONGE
 President, Maine Library Trustees Association
 Waterville, Maine

WRITTEN TESTIMONY

As President of the Maine Library Trustees Association, I shall direct my testimony to the general problems libraries face in this state, with reference to the solutions currently underway as well as to those possible presently beyond the scope of our library programs.

Many of Maine's problems reflect its individual population distribution and geography. A relatively small total population, less than one million people, is unevenly distributed over a relatively large geographic area. There is a decided concentration of population and industry along a corridor in the south coastal area. Future industrial growth is predicted to take place along this corridor, which roughly corresponds to the Maine turnpike. This will mean that population growth will continue to concentrate here. These facts must be taken into consideration when planning for future library service, since many of the present inequities stem from them.

I will discuss four areas where federal support is needed, and will discuss them separately. These four are:

1. Financial.
2. Aid in establishing cooperation between libraries and library systems, locally, statewide, and nationally.
3. Evaluation of service to users, current and future.
4. Improvement of the library image and increased visibility.

First: the present local support to libraries, largely based on local real estate taxes, has been responsible for inequities in service and opportunities. Twenty percent of the people living in this state have no library service, and another large percentage is served by libraries which are open only a few hours a week. The library bill passed by the state legislature will partially alleviate this problem by administering direct aid on a per capita basis, thereby enabling these libraries to upgrade standards and resources. Federal aid is mandatory in this area, if all the people in the state are to have access to library service. The present state financial support is at best, a step in the direction of equal service to all the people, users and non-users.

Programs available at present through the State Library, such as aid to the handicapped and bookmobile service to rural areas need federal support to maintain the present levels of service during a period of increasing costs, and to expand these valuable services statewide. Federal financial support should be given, then, directly to existing libraries, probably on a per capita basis, and to the State Library.

Second: cooperation between libraries must initiate locally, due to the prevailing fears of (1) loss of autonomy and (2) interference from the

State Library. Informal surveys show that these fears exist and any cooperative ventures must consider them. The priorities of small libraries are (1) professional advice, (2) access to supplemental resources, and (3) increased awareness of local community needs and how they may be met. These small libraries, and larger ones, too, resent direction imposed on them from state and federal agencies, and must be helped to generate cooperative ventures at a grass-roots level. This aid can be both financial and in the form of good consultant service, probably shared among libraries in the area.

Larger libraries need help in meeting the demands of the smaller libraries. Direct federal aid to the two larger libraries in Portland and Bangor, and to several smaller libraries now serving areas outside their own communities is necessary. These federally supported resource centers would meet demands already being made by smaller libraries. Bangor and Portland taxpayers currently absorb this financial burden but it is unrealistic to expect adequate support from them as services are expanded. Federal aid to interlibrary loan and common borrowers card would assist the establishment of the new library system in Maine. The school and academic libraries should participate but currently the provisions for such cooperation are minimal. A federal commission should offer resolutions to the financial, organizational and legal problems of school and public library cooperation.

Third: a more adequate means of evaluating current service and potential service should be devised. Boards of trustees and school boards must have some means of determining the adequacies and/or inadequacies of their library service in order that they may be stimulated to expand and improve service.

Fourth: libraries suffer from a lack of visibility. Again, the fault lies with local boards which have become complacent about the service they are providing. Now an effort must be made on a national level to encourage the impact the library has in the community. The public must be made aware of the role of the library in continuing education. Only when this has happened can libraries compete effectively for funds on local, state and federal levels.

I have not discussed the problems of personnel, technology and standards because I feel that these will be more adequately presented to you by professional librarians in the area, but will be glad to communicate further with you on these subjects if you wish.

Ms. TONGE: Mr. Chairman, members of the Committee, as I said, the problems in Maine, as you heard in New Hampshire, reflect its own population and geographic situation. Only eighty percent of the people are now served by public libraries. We have recently passed new legislation creating a regional library system; this has not been implemented yet. In fact, it just becomes effective today.

But I think our goal is the same as is presented in your draft for national legislation: equal access. Our program seems to mesh very well.

The means of setting up a national program seem a little forbidding at this time, but I think we are ready for it.

Chairman BURKHARDT: Ms. Tonge, I noticed in your paper you indicate that federal support is needed in Maine for service to the handicapped for bookmobiles and that kind of service.

Ms. TONGE: Yes.

Chairman BURKHARDT: Why do you think that the need is particularly for federal support rather than regional or interstate support? Is there any reason why you would ascribe that as proper as a need for federal money?

Ms. TONGE: Well, because of our rural population, we rely heavily on bookmobile service. Now half of our bookobiles are federally supported and half of the service would have been terminated with the loss of federal funds, and I do not think they could have been picked up with state money or would have been.

Chairman BURKHARDT: Are not those services in fact going to be terminated?

Ms. TONGE: I hope not. But yes, half of the bookmobile service.

Mr. LERNER: I am particularly interested in one item which I think that you believe is of some importance, regarding the cooperation between school and public libraries. From bitter personal experience where I am involved in libraries, the cooperation is plus or minus zero percent. How do you think that a federal commission could resolve such a problem where, on a local level, the cooperation in most areas today is minimal?

Ms. TONGE: I don't know. We have not had much success with it so far and I just hope that you might be able to come up with something. The division seems to be getting greater.

Mr. LERNER: What I am really asking is: Should we put pressure on the schools and the libraries and say, "You must cooperate to this and that ex-

tent?" That is, the curriculum must go to the libraries and they have to get the books. What would you have us do?

Ms. TONGE: I do not think you can ever say "must" to them because they do not react well to that. I do not know. Under this national agency that you are proposing, would you include school libraries, for instance? We are hoping to initiate local cooperation under our new library legislation, hoping that it will start on really a local level. That would be their first point of cooperation, locally, between the school and the public library, we hope.

Mr. LORENZ: Can you tell us how Maine librarians and trustees look upon their cooperation with the other New England states? Do you feel that cooperation on a regional basis is one answer to improve library service?

Ms. TONGE: Yes.

Mr. LORENZ: Could you tell us what forms you feel that cooperation should take?

Ms. TONGE: Access to resources. We are rather limited where we cannot find something in the state, where we have to resort to mailings. Out-of-state libraries are not always terribly cooperative on loaning materials.

Mr. LORENZ: Do you think it should be done on a reimbursable basis?

Ms. TONGE: I don't know. Probably.

Mr. BECKER: Are there provisions in your new legislation for stimulating and getting started new cooperative programs within the state?

Ms. TONGE: Well, the libraries are joining the system on a voluntary basis but are asked to state what kind of cooperative effort they mean to make in return for this. They get direct state aid on a ten cents per capita basis, so we anticipate that they will all be joining the system to receive it.

Mr. BECKER: There was no such formula before?

Ms. TONGE: No. They received a small amount of state aid; it amounted to \$20,000, I think, throughout the state. There was no per capita direct state aid.

Mr. LORENZ: Can you comment on the use of revenue-sharing funds in Maine?

Ms. TONGE: I don't think they have been used for libraries to any extent at all.

Mr. VELDE: You mentioned the national effort to encourage the impact of the library locally. Do you have any special way that you feel that you can be helped federally to get more money locally?

Ms. TONGE: Just in improving the library image.

Mr. VELDE: Not with publicity but with a program of some kind?

Ms. TONGE: Publicity and programs should go together. You should publicize the programs you are presenting.

Mr. LERNER: What are library trustees doing in Maine to improve the status of libraries financially and otherwise?

Ms. TONGE: Well, they were active in supporting this legislation and helpful in getting it passed. They now are working locally to encourage their own libraries to join the system. Joining the system is a decision to be made by the local boards in each case.

Mr. STEVENS: Can you tell me what the status is of professional libraries in Maine? We heard what the general situation is in New Hampshire. I have visited in Maine and I know that, as in many states, there is a wide difference between the libraries in the rural community and those in some of the cities and towns. I wondered if that is reflected too in the fact that many Maine public libraries do not have professional library workers. Do you have any knowledge of that that would help the Commission?

Ms. TONGE: Many of them do not have professional librarians and could

not under their present financial setups; the new legislation merely asks them to move in the direction of meeting standards. We did not feel that there was ever a possibility of many of these libraries, which are open mainly maybe four hours a week, ever meeting standards. In fact, only two libraries in the state do now meet standards, and this is because of lack of professional help.

Mr. STEVENS: I was called by a librarian in New Jersey recently who asked if we could provide information that would show that a library in a community raises the level of the property tax value, brings industry to town, generally creates more revenue than it would spend. I wonder, if the Commission were to develop the data that would show that a library in a town or city brings in more revenue than it could possibly spend, could the towns in Maine then bring their libraries up to standard?

Ms. TONGE: They would certainly move in the direction of raising standards. I think this has been shown with education, has it not?

Mr. STEVENS: Yes, it has.

Ms. TONGE: There has been more interest in local tax support. The base has been raised...

MARY L. BLECHARCZYK
Assistant Mayor, City of East Providence
East Providence, Rhode Island

WRITTEN TESTIMONY

Thank you for the invitation and opportunity to share with you some background observations on the constituency, challenges and potentialities of libraries. I speak as a constant user of library resources and, as a councilwoman, a partial provider of such services.

The evaluative crux of an effective public library ("library" in the broadest, contemporary sense of books, visuals, outreach programs, etc.) is its success in meeting the needs of its constituency. And who is its constituency? I submit my conviction that present, usual library services are

not geared to serve the average, grassroots person. Generally, an incredible opportunity for recreational and educational enrichment is provided for:

1. The "natural" reader to whom, truly, the library threshold is the doorway to life because of his own natural, intellectual interest;
2. The "school-compelled" reader who is forced to use libraries by educational demands from elementary to post-graduate levels; and
3. The "sedentary" reader who, because of physical handicaps, age, lack of mobility (including criminal confinements), finds broader horizons through library services.

Most of the technological breakthrough, ERIC, computerizations, innovative training programs, cooperative systems, etc., while tremendously worthwhile, are geared to improving the quality and efficiency of service to the constant user, the above-named captive customer.

Is the goal of a library and information science service to reach more people? Or will, instead, automatically, more be provided for the same people?

In East Providence, with a population of over 48,000, we have a captive customer core group of about 15,000 library users. Our system dates back to 1772 when a group of friends met with Dr. Budgham in Rumford and paid 12 shillings for a library subscription. Our system has been operative since then, and obviously has filled past needs. Yet the majority of people in the city are unaware of the dynamism of modern libraries. The library is not part of their life style. Should it be? In our community, with a median completed level of 11.8 school grades, can the library bring further education to the majority? Should it?

I suggest that the Commission consider authorizing a series of scattered market surveys of what the non-involved person wants from a library. The resulting information could broaden the library constituency.

I suggest that the Commission evaluate traditional library hours to see whether these hours correlate with the times people are not working and are freer to go to the library facility.

I suggest that school and special libraries be opened to non-students as a continuing education opportunity.

I suggest that in many areas libraries could be community centers if they combined space facilities with another civic agency, such as health clinics, social security offices, etc.

These are simple, known suggestions. Yet the objective weight of a report by the Commission could influence reluctant communities towards the anomaly of "proven innovations."

Federal funding and support by the state is an obvious, essential factor in the capital-growth of local public library systems. Because of shared library construction funding, we replaced a 1912 branch library in

the center of our city and provided an addition to a high-use branch library in the northern area. Yet block grants to be allocated by the city administration are preferable to categorical grants. The local government has experienced knowledge of valid priority needs.

Federal and state funding and direction should be mandated by the Commission to conserve, preserve, and share "living history" documents. East Providence, now in the State of Rhode Island, was originally part of the Massachusetts Bay Colony; and early records are lodged in the towns of Rehoboth and Seekonk in the noble state of Massachusetts. Joint state cooperation in preserving and sharing facsimiles of common records would be commendable.

A rational thrust to record living, oral histories of regions, occupations, and war experiences would be an irreplaceable heritage for future generations.

Commission members will have before them expert advice and suggestions from exceptionally qualified professionals. Yet your over-riding charge is to provide goals for libraries and information sciences for the people - the average constituency. Yours is a tremendous challenge.

Ms. BLECHARCZYK: I am the Assistant Mayor of the City of East Providence, the first woman elected to the Council, Council-woman at-large. My area of expertise is not specifically libraries, but I think I would qualify as a "grass roots representative," a user of libraries, and a funder.

In listening to the testimony, I found some of the questions and the answers were especially interesting because I was concerned about the policy paper which had been sent recently. I was appalled actually because the entire thrust of the policy paper seemed to be directed toward amplifying technical expertise, which I object to.

Libraries, as I said in my written testimony, serve a tremendous function as an educational opportunity for enrichment; but again I did refer to "a captive audience." People are compelled by business and education to use these facilities. This again goes for the academic libraries for which I have great respect. We have some tremendous facilities in Rhode Island and I have used them personally; but the thrust of the policy paper indicated that this was where the federal funding, the impact and impetus would go.

I feel very strongly --

Chairman BURKHARDT: I am sure we didn't mean to create that impression, but if the paper gives that impression, we ought to fix it.

Ms. BLECHARCZYK: I would appreciate that very much. It could make coming up here worthwhile, but I was especially interested in the lack - not only in the policy paper but also here - of representation from the average, ordinary user, because basically every bit of money you are going to spend does come from the rest of us; so rather than see the federal funding come down to a narrow group, I would rather have it go up, funnel up.

This makes basic, common sense to me. What you are doing with your needed technical materials -- your network systems, your computerization, the interrelationships, the regionalization -- this kind of thing is tremendous, but it is limited.

The effective use of this kind of technical information in the future is still going to have to come from the grass roots people who may not be reached now.

Let me give a specific example. East Providence is the sixth largest city in Rhode Island. We have a very diverse ethnic grouping. One of our problems is that of our 52,000 population, about 15,000 are registered library users. We have a good system. We fund it. Our circulation is increasing. We receive adequate financial support. However, in going door-to-door campaigning, I found very few people, the average, ordinary person, aware of and using our five local libraries. This did disturb me since I am education-oriented.

I also realized from my personal experience and observation that many of these are the people who need the library from the standpoint of educational enrichment. I am thinking specifically of one family of seven.

Both parents are Portugese-speaking. The father speaks English fairly well.

Of their five children, three of these, through the use of the library, I assume, and the public school system, have gone on to do tremendously well on the National Merit Boards. They won scholarships to Wellesley, to Brown, and the third chose to go to State University.

This core of the grass roots population eventually will funnel up to your technical expertise, but I would be very disturbed if it works the other way down. This is of special concern.

Mr. BECKER: I think there is an emphasis in the document, as you point out, on such things as inter-connection with the establishment of new national services and in the expansion of old national services. But I think it represents a different philosophy of federal investment in libraries.

In the past we have had categorical aid going to the states, the states doing with the money what they could at the grass roots level, and the federal government merely providing that channel.

What is suggested here is the creation of a hierarchy of national services that could benefit everyone, with the state assuming responsibility in some measure -- undefined in the document at the present time, since it is such a useful one, but with the states providing support for a great amount of local services -- the object being that you'd find things growing from the bottom up as well as from the top down.

Ms. BLECHARCZYK: Why would you prefer doing it through the state level rather than directly to the local level as part of the federal revenue-sharing?

Mr. BECKER: Well, I think the way in which the federal-state partnership has operated up to now is that there is a relationship between the federal government and the state, whether it is for convenience or because of existing governmental relationships, leaving it to the state to work with the local level, a sort of pyramid arrangement. That happens with all kinds

of federal funding, in highways and so forth.

Ms. BLECHARCZYK: But again you are thinking of it as two-level, federal and state, rather than three-level, local, state and federal.

Mr. BECKER: No. I think there is a fourth level, which Ron Miller mentioned before, not clearly expressed in the document at the present time. It is federal, it is regional, it is state and it is local, and somehow or other there has to be some kind of relationship between those four levels that would provide some homogeneous growth, and that is really what we are after, I think.

Mr. LORENZ: I think there is another philosophy at work here. Just as with education and schools, libraries are basically a state responsibility, and if you are going to get statewide planning for library development, you need to establish your strength at the state level to get that planning and funding responsibility. And, as Mr. Becker has indicated, there has been a traditional relationship between the federal and the state level funneling funds down to the local communities to get the statewide planning and development.

Mr. LERNER: How much revenue-sharing did the City of East Providence receive last year?

Ms. BLECHARCZYK: We received just short of a million dollars for 1972 and just short of the same amount for 1973.

Mr. LERNER: How much of that went into libraries?

Ms. BLECHARCZYK: \$25,000 from the 1972 funds.

Mr. LERNER: Certainly not a significant amount.

Ms. BLECHARCZYK: Significant in comparison with our user population of 15,000. We are one of the few communities in the State of Rhode Island who did allocate money for the libraries.

Mr. LERNER: Why in fact didn't the library get maybe a certain percent-

age greater than that? Do you think that libraries should be more active and vocal in the political marketplace?

Ms. BLECHARCZYK: Mr. Lerner, this is the crux of my feeling, yes. At one of the initial meetings in Rhode Island on federal revenue-sharing, the expression and feeling of Rhode Island was that physically libraries are not visible, that they are not reaching people beyond the "captive consumer," that there is no political clout for libraries. When you have political clout because people care enough, you get this kind of feedback, you will get this kind of effective pressure.

Now, in East Providence also we had allocated this \$25,000 for a new roof; you know this kind of situation - it went for maintenance expenses. When our budget discussion came up, \$20,000 was cut. We have allocated, and we have increased every year, to approximately \$230,000 for the support of our library units. Of this, the bulk of it, over \$180,000 was salaries, Blue Cross, Social Security, pensions. What was cut from this proposed budget was \$20,000 for books.

Now, to me what good is having a staff if they don't have something to work with? In the future we hope to cut down on staff work by processing records through our municipal cooperative data processing operations so that staff can have an outreach kind of situation. But don't be concerned; we are shifting our school budget proportionately. They had received an allocation of \$30,000 for school books which do not filter into the public library system. We are providing or hope to put back the \$20,000 that was cut because it is a minimum amount.

Mr. AINES: I notice on the last page of your document you talk about the "noble state of Massachusetts," and as a person who was born and brought up here, I appreciate that.

Ms. BLECHARCZYK: Well, we do share many activities and have much his-

torical background in common.

Mr. AINES: I am delighted to hear that you conducted a march through the district to find out how people really feel about our libraries and what they know. You make the point that the library services are not geared to serve the average grass roots persons but really a selected group of natural readers and others, and your concern is that the average person somehow participates in the library world but not library activities.

Ms. BLECHARCZYK: Yes.

Mr. AINES: Assuming that you have all the money that you want and all the facilities that you seek, are you going to be able to bring that community in to use your libraries?

Ms. BLECHARCZYK: Mr. Aines, we would shake up the traditional - and this is not a dirty word, "traditional" - but we would so shake up the traditional system in East Providence that we would be able to bring the non-user into it.

One of the other points I mentioned is the market survey to actually find out what the user and non-user want, which is a very fundamental thing, because you here have areas of expertise. I have been very interested in the testimony which has been given, but, you know, you can become very one-sided in this field. You think you know the people using the libraries, but I would think in terms of just some "druthers": If I had all the money, I would druther think in terms of disposable library materials, a one-use-kind-of thing. No one can convince me that people don't want to read. When you see the paperback books in every supermarket and in drugstores, well, there is where the people are and this is the place to go. Where do people congregate? Schools could be a prime source. This is another area.

You know, with respect to providing physical facilities to make people combine school and public libraries, this is one possibility: disposable or

single-use material which is inexpensive, and they can get in the habit, and people need it, so why not in shopping centers?

Again, in our particular context, where it is an educational opportunity for our ethnic groupings, there is one big flaw: You can read all the words you want, but if you don't know how these words are pronounced, you are going to stumble quite often. I think there should be more coordination between the visual and the oral.

This would be of special help for we do have the language barrier. There are people who can read the words, know what they mean, but have never said them aloud. This is a very little thing but very important to the individual.

Again we have a slight problem in that, until mass transit is really developed, we need to have the library facilities not necessarily in a prime building but within walking distance. If you limit the library to an area or if you regionalize it where you need transportation, you immediately eliminate families, because no matter how many two-car families there are, there more one-car families, and the car is used during the day by the male gentleman and it eliminates from activities the family use of a library. These are very simple things.

Ms. WU: I would like to make a comment on what you just suggested. I think it is a matter of techniques that your local libraries could create. They could create a lot of interesting programs to suit the public interest for different levels of people, such as the senior citizens program, the children's program and programs for young adults, to sort of motivate the public's reading interest. Also I would suggest that you could get up a very good public relations program to publicize your library program and services. Do you think that will help?

Ms. BLECHARCZYK: Well, Mrs. Wu, we had this past year over 150 programs

and these were very well attended. Over 3,000 men in the community did participate in one way or the other. We do have a very active library group. It is one we are proud of, very proud of, so we have many of these approaches. It is just a case of more and having the mobility and the fluidity financially to accomplish this.

Mr. DUNLAP: In your statement you call attention to the fact that some of the colonial records in Rhode Island are in the noble state of Massachusetts. I am not trying to put you off, but there is another agency to deal with such matters, the National Historical Publications Commission. But regardless of that, I would think the Rhode Island Historical Society located in Providence would be interested in this and would want to have copies made simply to preserve them, even though they are well-housed now. Have you explored this?

Ms. BLECHARCZYK: I have not personally. However, we have established a bicentennial commission in East Providence and are working with commissions from Seekonk and Rehoboth. Here again, we come into the area of lack of funds.

In East Providence we are prepared to provide the matching funds for federal grants, state grants, but in Massachusetts you have a different concept; they do not have matching funds. This is an area that I consider important for state and federal funding because you can overlap, and it is something that the individual communities cannot do. We have explored it in that sense. Work is being done to preserve state records; there is progress in this direction. In this specific area our State Director of Library Services could be more responsive.

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Mr. CASEY: You have developed the point that library services are not geared to the average grass roots person. Now, this may be a situation varying with localities. In addition to your regular library building and its established branches, some communities have established storefront libraries, they have books distributed by mail, bookmobiles and things of that nature, so it does depend upon the local initiative as to how far you go into the neighborhoods to deliver library services.

Now, I presume you brought this to our attention feeling that the federal government should further stimulate this matter of bringing books to the average grass roots person. If you want federal assistance, federal funding, what is your feeling in terms of federal guidelines, federal controls? If you will address that, would you say if you wanted us to provide the funds, you will have bookmobiles and you will have books by mail?

Ms. BLECHARCZYK: I think, Mr. Casey, my thrust is to indicate that communities will vary. I would hesitate to go with categorical grants. It should be block type of grants, left to the discretion of the local communities, because needs vary. I agree completely with you on this.

Local communities are so diverse that what is good for one may be absolutely horrendous for another; so money, fine, get it back to us; but don't tell us specifically it should be used for this, this or this. There has to be enough reliance upon the local situation and local officials and the local public librarians, who know what is needed in an area.

DOUGLAS W. BRYANT
Director, Harvard University Library
Cambridge, Massachusetts

Mr. BRYANT: I wish to thank Mr. Burkhardt and the Commission for this opportunity to appear before you. While I of course recognize that the charge of the Commission is necessarily almost limitless in scope, I naturally approach the question of national library development from a particular point of view: that of the very large, encyclopaedic library of record whose primary mission is to support advanced research and scholarship.

I hope that we may all assume that some sort of national network of libraries and information centers is not only a vital necessity but a prospect that may be envisaged as a practical possibility. Proceeding from this assumption, I should like this morning to devote my remarks to this subject with emphasis on the singular place of the large research libraries in American patterns of scholarship and research.

The designation and support of what might be called "national network collections" as a federal government responsibility is a fundamental, indeed an essential, element in any nationwide library program. Yet the practical and political problems inherent in this proposition are obviously of the utmost difficulty. It seems clear that within some general library institutions there are special collections that contribute uniquely to the national purpose (e.g., Bancroft at Berkeley and Clements at Ann Arbor) and which ought themselves to be designated as national collections. But I am also firmly of the opinion that some entire libraries should also be so designated -- libraries like those of Yale and Harvard and the New York Public Library that serve in truth as national libraries and whose national contribution derives precisely from the encyclopaedic character of the totality of their collections.

Such libraries contain vast, systemically arranged world-wide collections of published materials of every kind, including books, periodicals, journals of scientific and humanistic institutions and societies, official government publications, newspapers, maps, sound recordings, video tapes, microfilms, and bibliographic and textual information in computer based data banks. These libraries also hold thousands of collections of manuscripts extending through the whole of the history of man from his earliest writings through mediaeval illuminated manuscripts to the correspondence, manuscripts, archives, and other papers of statesmen, literary figures, scholars, corporations, and every kind of individual and organization. Quite apart from their collections, these libraries, in their various catalogs, have great bibliographical instruments of importance to students and scholars throughout the country. The continuous growth of these libraries and the consolidated development of their bibliographic apparatus are matters of paramount concern to the future of research and scholarship in America. Ways must and will be found to make the holdings of these libraries more readily accessible to researchers throughout the country. In this effort reliance will have to be placed on the easy availability of bibliographic information for locating specific materials, as well as on the continuing breadth and depth of the collections themselves.

It may well prove to be both administratively sound and politically attractive for much of the federal funding for a national library network to be channeled through state governments. Within any such scheme, there is a rather special question that should be most carefully considered. It is a notable American phenomenon that many of the largest and finest libraries have been built over the centuries under non-government auspices. These private institutions include such general collections as the New York Public Library and the libraries of the great private universities, as well as outstanding independent special

collections such as the Folger, Huntington, and Newberry Libraries. Indeed, in several states (e.g., Connecticut, Massachusetts, and New York) most of the major research libraries are private institutions. Thus, foolproof means will have to be devised to ensure that appropriate federal support for these libraries does in fact reach them and under terms that will most effectively promote their national purposes.

Special consideration must of course be given to the central role of the Library of Congress in any form of national library network. The establishment of a National Bibliographic Center in the Library of Congress is an absolute necessity that is long overdue. The Commissioners may recall that this was a major recommendation of the original Committee on Research Libraries of the American Council of Learned Societies in its report to the special Presidential Commission that was your predecessor. This National Bibliographic Center would be the central source of bibliographic information pertaining to the holdings of all libraries in the country, and particularly it would provide a means of ensuring that information on materials not acquired by the Library of Congress is incorporated in the National Bibliographic Data Bank. With respect to the Library of Congress as a lending agency, I would remind the Commission that, while the Library of Congress is de facto the National Library, it has a priority clientele in the Congress and other agencies of the Federal Government. This being the case, I doubt that it would be practical to think of that Library as being fully effective as a lending library of last resort. For much early printed material and for ready access to all kinds of research materials, an effective national network will, I believe, have to provide for a strong central collection of materials assembled primarily to provide the needs of scholars across the nation. The Center for Research Libraries is, of course, just such an institution that should play a prominent part in a national network.

In closing, I should like to underscore the concern I have expressed, and which I believe we all must share, for maintaining the strength of the large research libraries, many of them private institutions, as we work toward the creation of the National Network of Libraries and Information Centers.

Chairman BURKHARDT: You say the Library of Congress ought to be the place for the National Bibliographic Center. Is there any alternative to that?

Mr. BRYANT: None that I can think more practical. It seems to me the Library of Congress will remain the hub of the bibliographic enterprise of the nation.

Mr. LORENZ: In terms of the alternative for a national lending service, would you acknowledge that the resources of the Center for Research Libraries would have to be enlarged tremendously in order to serve this function?

Mr. BRYANT: Oh, tremendously.

Mr. LORENZ: At considerable cost in doing this?

Mr. BRYANT: Yes.

Mr. LORENZ: You feel this would be a better alternative than to enhance the copying facilities either at the Library of Congress or at other libraries, because in many cases the materials that we are talking about are unique materials which may only be in one library in the country? Would you comment on this?

Mr. BRYANT: Yes. In answer to that question, John, I think that in no case are we dealing with a monolithic situation, but rather with the network requirement. Neither the Library of Congress nor the Center for Research Libraries (no matter how it might be increased in scope and size) could serve as a single source of materials, particularly for retrospective materials.

It seems to me that some sort of central collection - and I say a central collection rather than a series of regional collections - ought to be developed in one form or another to provide ready access either directly to materials or to copies of materials, particularly current publications. I am distinguishing here between active collections whose primary responsibilities are to particular clienteles (such as the Library of Congress), and agencies (such as the Center for Research Libraries) whose primary purpose is to provide just this kind of service. Materials in every resource library have also got somehow or other to get into the moving stream of information.

Mr. DUNLAP: Mr. Bryant, we certainly would agree with you that we have responsible and, indeed, identifiable source collections and we must assist in their support, but then this implies wider use. I want to put to you the difficult question: As head of the largest university library in the country, can you face up to larger use and can you face inevitable destruction of your collections?

The New York Public Library, with which I am intimately familiar, was the prospect here. Do you anticipate or do you need enough funds to provide duplicates? Do you need more funds? How can you backstop --

Mr. BRYANT: Are you thinking of physical deterioration of materials, or of the personal traffic on the premises, so to speak?

Mr. DUNLAP: Both, yes, from correspondence, people coming to you for collections and physical deterioration.

Mr. BRYANT: Let's take physical deterioration. You touched

there, of course, one of the most sensitive and difficult problems with which the whole research establishment is involved. There have been, as you know, a number of proposals, and undoubtedly there will be more, looking toward establishing an effective means of dealing with the problem of preservation of deteriorating materials in libraries. We know that practically everything in the world printed in the last century or century and a half is on poor paper of deteriorating character, and major developments have been taking place in the last two or three years looking toward schemes of arresting deterioration of materials now in existence.

It is incumbent upon everyone concerned with the existence of libraries and research to bring to bear all the pressure that we can on publishers to insure that current publications are printed on those existing papers which are strong and durable and which will retard deterioration very considerably. Clearly, the preservation of our existing collections is a major concern of the nation, and, I should hope, of the federal establishment. I see no other practical way of getting at this business of the preservation of materials without massive efforts of this sort. Now, all of the major research libraries I know anything about, certainly including Harvard, are doing what they can, but this is simply a drop in the bucket, and a national scheme has got to be put into force. The excellent program proposed by the Association of Research Libraries, with some modification, ought, I think, to be most carefully considered by this Commission.

With respect to the traffic - the lending or copying - I think this is a matter that is largely one of additional person-

nel to handle the clerical and bibliographic work involved, and perhaps of larger laboratory facilities to make copies of materials required elsewhere in the country. I don't see this as any major stumbling block in a library like Harvard, where we constantly provide materials for scholars across the nation. With respect to larger use by people on the premises, this does create a separate problem, but one wonders really how much increase there would be in that kind of use. You see, in a place like Cambridge, with scholars from all over the country, indeed all over the world, there is already extensive use by visitors, and I wonder if one ought necessarily to envisage a large increase in that kind of traffic. If it were large, it would certainly be a problem.

MR. DUNLAP: You think it would just naturally follow?

Mr. BRYANT: Yes.

Mr. DUNLAP: In summers?

Mr. BRYANT: Oh, yes, in summers we already have large numbers of visiting scholars.

Ms. WU: You were talking about making the Library of Congress a bibliographic center. Would you suggest that the Library of Congress should duplicate the collections in the other national libraries, such as the National Library of Medicine, the Agricultural Library? Would you suggest that the Library of Congress should have a complete collection, even though the other national libraries have their special collections?

Mr. BRYANT: No, I would surely not advocate any such duplication. That would seem to me quite undesirable.

Mr. AINES: Falling in line with the last question, is it,

your view that the large encyclopedic libraries can infinitely increase their collections, that the regional approach that we are moving toward is an answer to that question?

Mr. BRYANT: In some degree I am leery of the regional approach, because I think the locations of the major libraries in this country have developed in a most unsystematic manner - wholly as a result of historical accident, of course. I think that the large encyclopedic collections will not continue to acquire proportionately as much current publication as in the past. Such large libraries are at this very period in history acquiring proportionately less of the potentially important research materials than they did 50 or 60 years ago. Certainly, this is true at Harvard.

It is, I think, through various kinds of collecting partnerships, consortia of a variety of kinds which now exist and which are being developed, I believe, that we can manage to cope with ever expanding publication. The important thing is to be sure the materials are in fact acquired some place, that the location and identity are easily established in a proper bibliographic scheme, and that they are available broadly and generally, no matter where they are. I would be hesitant about establishing a system of regional libraries because I think we would have an enormous amount of duplication of materials that would be so seldom used that it would be a waste of every kind of effort.

RUSH L. WELTER
 Professor of History, Bennington College
 Bennington, Vermont

WRITTEN STATEMENT

I received your questionnaire about the needs of library users too late to be able to do anything more than send you some hasty and unsystematic observations.

1. As a serious user of major scholarly collections pertinent to the history of the United States during the nineteenth century, I find the resources available to me in New England and New York State extraordinary. At the same time, I find the disparity of rules and regulations among major research libraries a nuisance, and I have been seriously inconvenienced by the refusal of some research libraries elsewhere to provide microform copies of materials they uniquely hold. Without pressing these various libraries to adhere absolutely to a common set of rules, the Commission might well consider developing some sort of library code that all might voluntarily adhere to.
2. It is a truism that one cannot use a library well unless its collection is well catalogued. Although no American collection is as inaccessible as some well-known European collections, there are great gaps in the information some of them can make available about their holdings. I know this to be the case with the American Antiquarian Society and -- to a lesser extent -- with the New York State Library, the Astor, Lenox, and Tilden Library in New York City, and the New-York Historical Society. The defects of their catalogs are such that even the new national union catalog is visibly inadequate. It seems to me that public support for systematic cataloguing of such resources is indispensable.
3. Any provision of public funds for libraries is probably likely to carry with it a mandate to each beneficiary to admit the general public to the use of its collections. This development has worked a severe hardship on the Astor, Lenox, and Tilden Library, not only in the sense of burdening its staff with routine labor better carried on in lesser libraries, but also in the sense of destroying parts of its collection. Perhaps the Commission could develop a code intended to help such libraries preserve irreplaceable materials, or facilitate their duplication for lay users.
4. In general, I find most of the attention library experts devote to "information retrieval" questionable on both a practical and a theoretical level. To the extent that the concept of information retrieval presupposes that libraries are storehouses of ready-made knowledge, it ignores the fact that schemes of knowledge must change over the course of time, thus making immediately obsolescent any systematic ordering of the materials they have on file. It also ignores the proposition that books and other printed materials are only avenues to knowledge, and best understood as assets to a process of inquiry rather than as objects that answer questions. The manner in which the Commission has stated its objectives causes me to ask whether it sufficiently recognizes this fact in its conception of its tasks.

5: All of these remarks obviously reflect my experience as a professional scholar. Hence they may serve only to call my judgments into question, inasmuch as the Commission apparently intends to concern itself most seriously with the needs (or the lacks) on non-scholarly and perhaps even non-literate laymen. If this be the effect of my remarks, I should add that I have long been a staunch advocate of popular education, and that nothing I say here is intended to deprecate it. I am concerned, however, with any theory of popular education that seeks to accommodate the information process to the deficiencies of existing modes of inquiry, rather than works to elevate those modes to the point at which the ordinary man can achieve a serious and indeed quasi-professional grasp of subjects he is interested in. In some sense, I suppose, my perspective is "Jeffersonian" rather than "Jacksonian" -- but I would tend to label it "Deweyan" instead, save for the fact that hardly anyone seems to realize how demanding John Dewey's quest for a democratic "intelligence" was. I trust that the Commission will not permit the mechanical problems of libraries and library users to obscure the very nature and uses of learning.

Mr. WELTER: I recognize there are technical problems that I don't know much about, and also that there are potential political considerations that enter into any discussion of a national library service or system, but I think I would stress in response to the statement (the draft): one, what is wanted is a network of access, not simply a network of reference as to publications.

Second, I would come down very heavily on the proposition that what we need is improved catalogs and improved indexes of different kinds. It is a truism, but if you don't know that something exists or if it isn't cataloged in a suitable way, you just don't know about it unless you go through open shelves, which you cannot do in most libraries. Indeed, as I suggested in my written remarks, there are a number of major research libraries that don't even know what they have; in some cases I know more than they do about some small aspect of their collec-

tion, at any rate.

And, finally, speaking as an American intellectual historian particularly interested in the nineteenth century and particularly interested in popular attitudes, not elite attitudes, I cannot stress heavily enough the need to preserve publications that are obviously ephemeral. That is to say, no scholar of philosophy would be interested in them; they are ephemeral in that sense. Also in the physical sense: the more popular they are, obviously the worse the paper they were printed on. Newspapers and tracts and things of that sort are simply disappearing in the sense that they cannot be used any more. They are also, I should add, exceedingly expensive to preserve.

Chairman BURKHARDT: Do you find when you are trying to do research at Bennington, which does not have a research library, that your work necessitates your traveling to various other centers?

Mr. WELTER: Yes, it does. I am very lucky. The American Antiquarian Society is especially strong in things that I am interested in and the New York State Library also, so that I don't have to travel very far, but there are limitations on time and limitations on the kinds of use that I can put those materials to. For instance, it is a small matter, probably not befitting a real scholar, but it would be nice if I could borrow things sometimes. Because I am not a resident of New York State, I must arrange to do all the work there or arrange an inter-library loan.

Chairman BURKHARDT: But the interlibrary loan could accomplish that?

Mr. WELTER: Yes, I have access to interlibrary loans. These, of course, would not include exceedingly rare books or that kind of publication. Also, a small library like Bennington College has some diffidence in asking for volume upon volume of anything, although the kind of thing I do involves a great many materials.

Mr. JERNER: You are the second or third person who has testified to one problem, and that is the refusal of some libraries to provide microforms or copies of materials that are unique. I personally am appalled by that. Would you give us that rationale and how it affects you and other scholars?

Mr. WELTER: My sense is that, for reasons that anyone can understand, many of these excellent collections, or excellent collections with respect to a particular state or particular region, began as private hobbies, and when they were made publicly available they were still made available more or less in terms of a private club. When one goes to almost any one of these collections, one in effect acquires membership in the club; but if one doesn't physically go there, one is out of luck. In one case, for example, I remember that the proprietor, if I can call him that - the head of the library - apparently suspected me of wanting to produce an anthology or something like that and was very concerned that the physical exclusiveness of the material remain at the library rather than that I be able to reproduce it. Well, I didn't intend to reproduce it. I was perfectly willing to agree to not reproduce it, but somehow or other I didn't make the club. I protested actually to Mr. McCorison at the Antiquarian Society and asked him to write a

letter in my behalf. Then the reason for not giving me the microfilm materials changed, but I still did not get the films.

Mr. LORENZ: What has been your experience in getting copies, photocopies, of the materials that you want from other libraries?

Mr. WELTER: Reasonably good, except for the difficulties like this, and in this particular case, for example. I don't know whether you want me to use names or not. Does it matter to you?

Chairman BURKHARDT: You decide.

Mr. WELTER: Well, a librarian in a large metropolis did not wish to make available its materials. The librarian apparently talked to the librarian of the state historical library and the state librarian agreed to give me matters they held uniquely, but many of the copies they didn't hold uniquely were held otherwise by the library in the metropolis, with the result that they had two copies but I didn't see either.

Mr. LORENZ: I was getting at a different aspect of the question. That is, whether you find the cost of getting copies prohibitive.

Mr. WELTER: No. It can become very costly, of course. For instance, the kinds of things that I am talking about were imprints listed in state listings of imprints; those are relatively inexpensive. If I wanted to have anything to do with newspapers, however, the cost would be prohibitive.

Mr. AINES: I would like to read a statement that you made and ask you to amplify a bit on it. You said, "I am concerned, however, with any area of popular education that seeks to accommodate the information process to the deficiencies of exist-

ing modes of inquiry rather than works to elevate those modes to the point at which the ordinary man can achieve a serious and, indeed, quasi-professional grasp of subjects he is interested in."

Then, you go on to talk about the Jeffersonian rather than the Jacksonian approach. Would you elucidate a bit on that?

Mr. WELTER: I must say it is not easy to do. That is, one can write a book about it, as I have. My problem is that (as I suggested to you when I sent my hasty memo in August), it seems to me that much of the conversation that one hears about or reads about, say, in the New York Times having to do with library matters presupposes that there is a set of bodies of knowledge resting on shelves somewhere and that the functional problem is to get those bodies of knowledge into the hands of users. I think that the manner in which one conceives knowledge has a good deal to do with the kind of structure or reference or bibliographical materials that one would set up and that the object is not simply to be able to account physically for every title that anybody may have heard about or, for that matter, to provide specifically formed information, but to provide an arena or a place where a person can go and range around, make inquiry, find his way to points of view and interpretations that he didn't initially anticipate. Beyond this we get into a whole theory of learning and education which, as I say, is a very large topic.

I don't know whether I have responded at all to what bothers you.

Mr. AINES: If I understand you, you say you are concerned

a little less about bibliographic material and more about the knowledge that you mean to acquire.

Mr. WELTER: Well, I am less concerned about the mechanics of accessibility and bibliographic listing, which may get in the way of the notion that publications are raw materials for the use of the imaginative mind rather than quantitative pieces of information which, once made available, provide all that is needed.

Chairman BURKHARDT: You speak of many libraries having large gaps in the information they are able to provide you. You mean something more than just the bibliographical information?

Mr. WELTER: In this particular case, no. Again, to take the Antiquarian Society, which is probably the preeminent library for the period up to about 1875 in American writings, I have recently been back there checking quotes and other kinds of things in a manuscript that I have completed. I am now in a position in which I have said to them "I am pretty sure you have a given item somewhere." They have wracked their brains as to where it might be because the catalog doesn't show it, and yet I obviously have seen it, so that literally they don't know what they have. This is why I say that the new union catalog, or whatever it is called, is deficient.

The same is true of other libraries. Just to give an example, -- I don't know how I found out about it initially -- I know that the Harvard Law School Library has a book from 1850; the Union Catalog at Harvard doesn't know it and, therefore, the new Union National Catalog does not know it. This is what I am talking about in this instance -- the mere physical

listing, if I can call it that.

Mr. BECKER: Your phrase, "the process of inquiry," intrigued me in your letter. From the professional librarian's viewpoint, the process of inquiry consists of the organization of materials on the shelves, the preparation of catalogs, the development of other tools of that nature, the use of two-dimensional classification systems so that we can find things by subject, by author and by title.

The process of inquiry on the part of the scholar is the use of this apparatus and many other things, such as serendipity and other kinds of things to enable him to locate what he wants, and it is a detailed kind of thing.

What do you suggest can be done for improving things from a scholar's viewpoint?

Mr. WELTER: I would be happy to ponder that and try to write some minutes on that. I can't answer right now in two minutes because I think it is part of our scholarly conception, but it is a most difficult kind of problem to contend with.

Mr. BECKER: If you don't mind using your experience and giving us the benefit of your suggestions, we would certainly appreciate it.

Mr. WELTER: Well, I will see what I can do. Of course, I have been teaching for 20 years or so, and I try to do the things in teaching that forward the process of inquiry, so maybe I can say something of relevance to librarians.

Mr. DUNLAP: What difficulties have you encountered in trying to find photocopies pertaining to particular collections?

Mr. WELTER: In my case it is imprints that I would like to

see in some cases, and the answer has been no; in one case, the Alabama State Archives, there apparently is a large collection of pamphlets made just before the Civil War by J. L. M. Curry that is in such bad shape that microcopies cannot be made.

Ms. MOORE: I am intrigued with your statement that in general you find most of the attention paid by library experts to information retrieval questionable. You have spent a little time writing on that, but I would like you to expand further if you would care to.

Mr. WELTER: Well, I am not an expert in this. I can only report what my reactions are when I read the New York Times, which may or may not accurately reflect what the library people are talking about in their conventions or wherever attitudes like this are expressed, but for me at least, even the phrase "information retrieval" raises certain hackles for the kinds of reasons that I have suggested in responding to other people.

It is true, of course, that a librarian must necessarily think in terms of organization, accessibility, physical placement. Maybe I am just an obsolescent man; my sense is that increasingly, as the technical problems of availability grow and the amount of publication increases, librarians are necessarily thinking only in these mechanical terms or, rather, that they can think only in terms of mechanical solutions. Once you begin thinking in terms of mechanical solutions, you tend to think all the problems are indeed mechanical. I think that is what most humanists say about computers, and it is the same kind of protest. Again, all I can do is say that these are my prejudices as I read the accounts in the Times.

Now, I may wrong you --

Mr. AINES: May I reassure you that there are many people in various groups, including the federal government, who feel very much as you do, and that the idea is to provide the knowledge required to accomplish certain ends, whether they be in terms of scholarship, solution of human problems, solution of technological problems and virtually every other kind of an effort that requires intelligence, not given you necessarily always in bibliographic form.

But be reassured that there are many people who feel the same way.

Mr. WELTER: Well, as I say, I entered that in my initial comments. I am not sure what is really going on, but I am suspicious.

JOSEPH M. CRONIN

Secretary of Educational Affairs, Commonwealth of Massachusetts
Boston, Massachusetts

Mr. CRONIN: Members of the Commission, may I present three major points:

1. The Federal government has stimulated major advances in the extension of library services to forgotten populations -- inmates of prisons and of hospitals, immigrants and bi-cultural citizens.

The withering away of Federal support at this time, however, is fatal. Many of these groups cannot or do not vote. Most cannot come to hearings -- the incarcerated, the handicapped, the speaker of another language. The pro-

grams are new and not in the front rank of the scramble for revenue-sharing funds, whether state or local.

Thus we need Federal categorical aid -- for planning special projects, for seed grants, for renovation, for start-up costs, for evaluating and updating a comprehensive state plan. The aid should come to the state library and media agency best equipped to stimulate local, regional, and institutional initiatives.

2. The Commission should provide encouragement and technical assistance to states which want to improve their capacity to respond to new clientele and technological developments in the libraries and information sciences.

Massachusetts has done remarkably well given a very fragmented organizational structure. We have a Board of Library Commissioners to help local and school libraries and regulate entry into the profession. We have a Board for the State Library, our official state government library. We have five higher education governing boards, all with different job titles and procedures for organizing library and media services. A sixth board in higher education helps by distributing money and by centrally processing the books for state college libraries. A seventh board does it for private colleges and public colleges elsewhere in New England. Two other councils make policy for instructional television and telecommunication while a new Cable TV Commission handles regulatory aspects.

Recently Governor Sargent proposed one board for higher education and one library and media board, the latter to pull together the two library boards and the two telecommunications councils into one. The Cable Regulatory Commission will remain a consumer affairs agency but wants to cooperate with those of us in educational and cultural affairs.

The federal Commission can help us by recommending ways of organizing a state for effective coordination of information collection and retrieval and information services broadly defined. Just as HUD or DOT gives grants to develop comprehensive plans for organizing and delivering services, so should your Commission seek parallel resources for helping us organize library and related technologies.

3. The third admonition is to pursue aggressively the new technologies that may revolutionize the concept of library services. Your program reports and other publications indicate that you know what a library is and are watching new developments with caution.

Give the nation leadership in telling us how cable TV, the computer, and the local library will work together to improve the services to every home and family.

Tell us how the new alliance between local libraries and the open university is working out so that we can adjust our higher education policies to include local libraries.

Educate the President, the Congress and the nation

about the potential of video cassettes, computer time-sharing, xerography, and the other developments beyond the multiple media services now offered by our libraries.

Our librarians tell me they are ready for the exciting future where the several technologies and the printed word will complement each other and not compete for attention. Help us define that vision and help us translate it into Federal and state policies that preserve our library treasures while extending knowledge and enjoyment to the total citizenry.

Chairman BURKHARDT: Your remark that the incarcerated cannot come to public hearings, reminded me that in our Atlanta hearings we did have a prisoner in one of the state prisons come. He was serving, I think, three or four life terms consecutively, and the prison library was one of his major interests. He made a very good witness, incidentally.

Well, if I may ask the first question: Does your office keep track of how revenue-sharing is working? Would you know fairly specifically how much revenue-sharing money is actually going into library support?

Mr. CRONIN: Yes. Our Board of Library-Commissioner's has asked each local community, each local library, to report on how much money they have received, and they have been keeping a running account for the past six or seven months.

Chairman BURKHARDT: In general, what is the picture?

Mr. CRONIN: Well, it is spotty, but the overall picture, I would say, is bleak. There have been some break-throughs, and I know there have been reports at the end of the first six

months, but we had only received about ten or twelve reports of where revenue-sharing funds to the local communities had been earmarked.

At the state level, about ninety percent of the general revenue-sharing money went into reimbursements to local cities and towns for educational services, and I regret to say that very little of that went to library services.

Mr. AINES: I think I have asked so many questions but you are a delightful target. Let me ask you this question: In your testimony you talk about federal categorical aid, among other things, for evaluating and updating a comprehensive state plan.

It would seem to me that Massachusetts, with its concentration of intellects scattered throughout the universities and elsewhere, might very well, without federal aid, at least begin to get the rudiments of such a plan.

Why would you expect us to encourage this with the use of federal funds when, if the needs are so great and the opportunities so rampant, why would this not be done, let us say, in doctoral theses at MIT or HARVARD and a variety of other places? How much effort have you made to get some internal guidance of this type which in turn would be useful for the rest of the country?

Mr. CRONIN: Well, right now, of course, using the LSCA funds, we each year have been developing a five-year plan and there is periodic evaluation of it.

What I am saying is that this is a terribly important thing to do. Yes, we may have more than our share of brain-power and library talent in this region, New England and in Massachusetts.

However, most of it, probably ninety-eight percent of it, is concentrated in an individual institution or an individual library.

What we need is help to achieve some of the goals that I know this Commission espouses, that of networking and linking together, making sure that we are not building libraries with similar collections one mile apart or even ten or a hundred miles apart, if we don't need to, if we can spread the resources farther.

Now, that is going to take a lot more than a doctoral dissertation or an occasional scholar in library science sounding the alarm about some of the mistakes. We need sustained and persistent attention paid to it.

I call to mind the work we are asked to do by the federal government in vocational and technical education, where we are asked to link that to manpower training and we are asked annually to evaluate and update our plan. A prerequisite for sophisticated and advanced systems of information science and of sharing resources requires some stimulation, and it is more than that which the graduate students or some scholars can develop from time to time on an ad hoc basis.

Mr. CASEY: Mr. Cronin, in preparing the statement, what mode of agency have you used? Are these personal thoughts that you have gained as State Secretary of Educational Affairs, or are you reflecting local public sentiment?

Is there a public move for the things that you wish and that is translated to the Senators and the Congressmen? Of course, then we might respond to these things in terms of financing now and we might come up with suggestions and recommendations; but

unless they are financed and become public policy, we will not be able to implement them. Do you believe there is public sentiment for the kind of thing you are advocating?

Chairman BURKHARDT: Could I repeat the question for the benefit of those who may not have heard? Mr. Casey wants to know to what extent Mr. Cronin's position that he takes in his paper is his own personal one or as an expert in these matters, and to what extent it reflects public sentiment and needs and demands at the present time.

Mr. CRONIN: Well, my work as Secretary of Educational Affairs involves reviewing the budgets and coordinating the activities of all these boards and councils, in higher education, secondary education, arts and humanities. This work takes me throughout Massachusetts. I have met with library officials on three or four occasions; I have visited some of our prison libraries as well as our regional library centers and other libraries, including the Boston Public Library, with its fantastic new addition.

So I have had a chance to talk with librarians and with trustees and from time to time with consumers to find out how they feel. What I find is that there is just the very beginning of an awareness of what a technology like cable TV can do for education and information sciences broadly defined, just the beginning of it. That is why the Commission, rather than wait for the flow of public support, has got to define what the potential is.

I found individual librarians and boards are committed to extending library services to the handicapped, to those in cor-

rectional institutions; however, the general public probably is not as aware of that as a priority as those of us who have the rare privilege of being in public service and having a statewide point of view on these services.

I am really giving you the informed opinion of those in leadership positions, that these are areas that must be highlighted and where support must be generated.

Ms. WU: On your first point, you pointed out that the federal government should give categorical aid in order to serve the immigrants, bi-cultural citizens, minority groups. Would you suggest that the aid should be indicated separately from the general funds which will be allotted to the library services?

Mr. CRONIN: Let me respond by giving an example: We in Massachusetts last year passed a bilingual and bi-cultural education act where we specifically say we will reimburse communities, local school systems, for the additional cost of providing services to populations such as Puerto Ricans, Portugese-speaking, Chinese-speaking and many other groups that we have in Massachusetts. You know, this is a clear case of specified categorical aid. I think it is Title 7 of the Elementary and Secondary Education Acts, which was put in to provide bilingual education to states with large concentrations.

So I think there are several precedents for it. The alternative would be to include it in a list of specific kinds of services that would be paid for by some Title in a piece of federal legislation, but I know this: that my awareness of a library for the Portugese-speaking people in New Bedford, a library in the south of Boston for Spanish-speaking people indicate that

this is a very important need and we need stimulation and assistance.

Mr. LORENZ: Mr. Cronin, in making your recommendation that the Commission provide grants for certain purposes, were you in effect recommending that the Commission become more of an operating agency than the present law foresees for the Commission?

Mr. CRONIN: Well, I see you being in the dilemma that we are phasing out certain kinds of federal aid for library services, library construction. The Commission, I gather, has already been transformed once from a kind of short-range advisory group now to a Commission with somewhat larger responsibilities. I don't pretend to know what the next step is, whether it should be a commission or some other agency that you recommend or some unit within HEW -- whatever experts on federal government structures think best -- but I do see the need for sustained support. I like some of the phraseology in your new draft document that talks about assuming a role similar to interstate highway cooperation. I don't know if you know it, but in Massachusetts we are cutting back on our commitment to the building of interstate highways and cutting up our cities; we will be happy to use some of those funds for library and technology.

Ms. MOORE: I think that is a very admirable statement from a public official. In our part of the country, roads are paramount to everything, and I am so glad to have your testimony in that regard.

You have indicated here that you think the state should take primary responsibility in planning, and since I agree with that point of view, I would like to get you to expand a little bit

more on it.

How have you gone about coordinating the work of these boards? I see that you are moving toward eliminating two and perhaps giving a broader charge to those that remain.

Mr. CRONIN: Yes. I believe the state is an appropriate unit for helping cities and towns and institutions develop as a network. Naturally there are some things that ought to be done on a national level, other things that ought to be done on a New England regional basis; but I see the bulk of the responsibilities going to the states, and we think our state board has done a very effective job by making priority decisions on where should some of the federal funds go, where should our state funds go.

We are interested in getting the regions within the state to cooperate and to provide services; we think we should get federal funds in the future, in addition to state funds, to put our house in order, not to have so many different boards making library policy that may go in a different direction.

One recommendation or request I have is: Tell us and give us your impression of some of the states which are doing a particularly good job of orchestrating and planning for library services and related information technologies.

WALTER BRAHM
Connecticut State Librarian
Hartford, Connecticut

WRITTEN TESTIMONY

In response to your invitation of July 2, 1973, brief testimony is herewith presented in preparation for the hearing of the Commission scheduled October 3, 1973 in Boston, Massachusetts.

Also in response to the invitation this testimony will focus on the Library of Congress as the national library; its responsibilities and authority - specifically on assigning the library responsibility and authority for the administration of all categorical federal library aid programs as the most effective means of developing and coordinating libraries and information service on a national scale.

"Put your money where your mouth is" is the common rejoinder to those who advocate a policy or procedure. To the National Commission on Libraries and Information Science, whatever course of library service it may advocate, we say the Federal government should put its money where its books are - in the Library of Congress.

For many years we have felt that the distribution of federal funds for libraries should be administered by that agency of the Federal government which has the greatest collection of library materials, the Library of Congress, rather than by an agency which is not in the library business. The Library of Congress uses its great collection of materials efficiently to supplement public, academic and school library needs of the states and communities; yet grants-in-aid for precisely the same purposes are administered by a variety of bureaus in the Health, Education and Welfare Department, and awarded by decision-makers whose primary interests and pressures derive from other aspects of education. The amount of the several library subsidies is such a very small percentage of the total subsidy for health, education and welfare that it cannot command from these officials the attention and respect necessary to provide the stability essential for continuous and long-term library development. Grants-in-aid, advisory service, reference service, interloans, library research and development programs are so inter-related, that divided, the Federal government reduces its ability to coordinate library services.

It is worthy of note that those state library agencies which have authority for the distribution of grants and the acquisition and servicing of library materials are an overwhelming majority. One hesitates to consider how much less effective the programs of state aid - a phenomenon of the last 40 years - would have been if these funds had been distributed by other state agencies without coordination with library materials at the State level, as now practiced by the Federal government.

The above proposal can be immediately dismissed from consideration with the argument that the Library of Congress is in the legislative branch of government while grants-in-aid are an executive function. However, this belies the fact that the Library of Congress is and has been functioning as an executive institution. Its chief officer is appointed by the President. It serves the executive branch as well as the legislative. For years it has produced and sold catalog cards to libraries of the nation, an executive function. Currently it is producing and distributing Mark II automation tapes, an executive function. It "administers" libraries for the blind and handicapped in each state through distribution of books and other materials to them, a service which has not even the remotest relationship to Congress or its work. It administers the Copyright office. If these aren't executive functions, then as the song says, "it don't rain in Indianapolis in the summertime".

If the Library of Congress develops and administers programs of library service throughout the nation, sells and distributes materials directly to libraries, should it not also administer and distribute funds appropriated for the same purpose? If it executes statutory policy on book distribution, copyright and other services, should it not do the same with grants?

Organization of the Library of Congress as a unit of the legislative branch of government is unique among libraries, providing certain advantages for the library which permitted it, perhaps forced it, to become the great institution it is. Presidents and the Congress have held it free from partisan politics and separation-of-powers protocol. The Library of Congress' primary concern is library service. It is the agency best equipped with experience, know-how and continuity to use money and materials for the common purpose of coordinating library service in the nation.

Chairman BURKHARDT: Mr. Brahm, the State Librarian from Hartford, Connecticut is here now. We had passed him over. I would take it that you were obviously delayed by the weather.

Mr. BRAHM: Well, good morning, ladies and gentlemen of the Commission. I wasn't delayed by the weather, but I hope I don't talk in circles this morning because I have been going around and around in the parking garage over here and I finally landed up on the ninth floor. So maybe by this time the cobwebs are out of my mind.

In the brief testimony that I previously submitted to the Commission, I advocated transferring the categorical library grants and service grants from the U. S. Office of Education to the Library of Congress, citing the inability of these grants and programs to command sufficient attention and competition with other programs involving vastly greater sums of money.

I want to further support this testimony by reporting how the library program has been shifted around in HEW like the proverbial orphan. It is not meant as criticism of the Department but is intended to show what difficulties plague a small program in a huge federal department.

Although current national funding for libraries is in doubt, it is still important that the Commission appraise the effectiveness of HEW's administration of such funding. Responsibility for administering new funding formulas and service proposals made by the Commission will have to be assigned to a federal agency. I think it is very important which agency it is assigned to.

Since 1968 -- only five years ago -- there have been at least six U.S. Commissioners of Education. The appointment of a seventh is now pending. The Office of Education is, of course, the unit in HEW to which the library programs have been assigned. The organizational status of the library in HEW has been changed frequently. As of January 1968, there was a Director of the Division of Library Services and Educational Facilities under an Associate Commissioner for the Bureau of Adult, Vocational and Library Programs.

In 1969, the Division was reorganized as the Division of Libraries and Educational Technology. Currently it is assigned to an Associate Commissioner for Libraries and Learning Resources.

During these five years there have been four different Associate Commissioners in charge of the library program and a period during which the position was vacant. I submit this is no way to administer any program.

As the witness testified when asked what he thought when he saw two trains approaching a head-on collision, he said, "What a hell of a way to run a railroad," and I think this is true in terms of past administration of library programs.

Now, in contrast to these frequent changes in personnel and organization, there have been only eleven Librarians of Congress since its establishment in 1800, 173 years ago. Continuity with growth has been the record of this institution. It is the most dedicated of all federal agencies to libraries and information service.

The Commission's draft of "a new national program of library and information service" dated October 1973 cites the lack of a central authority to set information policy and it questions where such authority should be placed.

A National Library Authority, in theory, appears to be an improvement, and could be; but such an authority operating outside of an existing library would lack the power to control any part of its basic raw materials and the tools of its trade, which are books and materials. It always would be in the position of gate-crashing a stockholders' meeting -- not owning a share of stock -- advising your company (libraries) what is best for business.

However, if such authority is the Library of Congress, it then holds majority control of substantial library resources in the country for use in combination with money to effect the networks and systems of library service the Commission envisions in its proposal.

So, I would hope that whatever authority is set up, that you seriously consider the Library of Congress as being that authority.

Mr. LORENZ: Well, the Library of Congress will do, of course, what the Congress of the United States asks it to do, which represents the will of the people. We do recognize, however, the problem that you have indicated; that it is in the legislative branch, which historically has not assumed executive functions. But we also recognize the possibility that change is in the nature of things and, therefore, we are not turning a deaf ear or blind eyes to such a possibility, but we do feel that this is something that the Congress directly would have to express its will on.

I might say that the strongest indication of moving in this direction has been in terms of the Library expanding upon its present services to the blind and physically handicapped, which presently is in the nature of materials and equipment, and replacing with money grants the present funds that have been

in the Library Services and Construction Act (which funds may disappear with the other LSCA grants), making this up by having grant funds appropriated to the Library of Congress to continue to support services to the blind and physically handicapped.

So this would be, you might say, the beginning of the kind of money grants that I think you are suggesting would emanate from the Library of Congress.

Chairman BURKHARDT: For those of you who may not have heard what Mr. Lorenz said in response to the testimony, it is that the Library of Congress has been doing some things in the direction that Mr. Stamm recommends, particularly in the blind and handicapped area, but that any real increment in that would depend entirely upon Congress. The Library is ready to do whatever Congress says it should do, but traditionally the Library has not gone into grant-making.

Mr. BECKER: Walter, I think it may be useful if we explain our reasoning behind suggesting a new federal investment policy in libraries. Essentially it may appear as if we are abandoning our approach to the categorical aid, although I don't think we have gone that far. But basically there is a general trend toward the administration of decentralized funding in the states and giving them more responsibility for doing things locally.

Secondly, categorical aid seems to have promoted a haphazard system in the country, as good as it has been for certain purposes. While I think the Commission would like to see some continuation of categorical aid, implied in this draft document is that, if that occurs, it then should be done in such a way that it stimulates interdependent growth among the states for national benefits.

How do you evaluate the past categorical aid, and to what extent do you think it should be continued in the future?

Mr. BRAHM: I would agree that many of the programs that have developed across the country from categorical grants have not been the successes that perhaps have been hoped for, but it still seems to me that there were sufficient of those programs that were successes, and did accomplish things, that certainly the categorical grant program ought not to be phased out.

As Ms. Moore referred to earlier, that she was glad to come to some place where roads were not all-important, it just seems to me that unless you have some categorical aid grants, you affect libraries which do not have the heft to compete with the highway departments and welfare departments and so on in the state government, and locally. So unless you have money earmarked for some of these programs, I am afraid those libraries are going to lose out.

If you are suggesting, as I gather from the tenor of your remarks, that you were not cutting out funding of libraries but cutting out categorical aid programs, it seems to me that whatever purposes you would tend to use money for, administration of it is important, and the continuity of that administration. I still think in those terms that the Library of Congress would be a valid device as the agency to handle that money.

Ms. MOORE: I would like to ask Mr. Brahm, since he has had rich experience as a State Librarian in two states --

Mr. BRAHM: It wasn't so rich.

Ms. MOORE: Well, maybe monetarily not but experience-wise I am sure it was.

I would like to ask you to comment on the role of the state library as you would recommend it for coordinating and planning purposes for libraries within a state and within a network.

Mr. BRAHM: Well, I would say that the state library is the key agency that it has always been projected to be in terms of distributing and planning for library service in the state. I think it is on a tightrope in terms of satisfying the library interests in each state. You never can be sure whether you are

providing too much leadership or too little. You always find that there are dissident groups. The state library is the old apple tree that has a lot of sticks and stones thrown at it. If you are going to get rid of that apple tree, if you are going direct from national level down to completely local, -- which, I guess, is the point of your question -- it seems to me you create a worse situation.

Chairman BURKHARDT: Are you keeping a record of just what the effect of revenue-sharing is in your state?

Mr. BRAHM: In Connecticut we are keeping a record as far as we can gather the records. I would say that from the local level it has been good in a few spotty cases and not so good in the majority of areas of the state, even though there are a lot of libraries that have received revenue-sharing funds. It has no continuity to it. I mean they get money for a one-shot affair, build up their book collection for this year only, or the money is held for some capital improvement, an additional library building, which again is not a recurring expenditure. I am afraid that revenue-sharing will have no continuity or permanence for succeeding years.

Chairman BURKHARDT: Have there been any programs that have had to be terminated because of the stop in the funds?

Mr. BRAHM: Oh, yes, we have cut out in Connecticut all of our grant money to local libraries. We have been able to continue only the services that were going to local libraries from the state library -- teletype, interloan and that type of thing -- which the state government funded to replace loss of federal funds.

The categorical grant loans that we were distributing to local libraries for special projects and the operation of the system offices and programs were entirely cut out last year because of the uncertainty as to how much we were going to get, and for this coming year, unless Congress' appropriation prevails.

Mr. STEVENS: This afternoon I know you will be going to the dedication of the Document Conservation Center in New England, and we heard the distinguished director of the Harvard University Libraries talking about the importance of preservation at Harvard University and elsewhere.

I wonder if you could say something about the preservation of book materials and other materials from the point of view of a state library and public libraries generally, as differentiated from the academic libraries generally, and what this new center will mean to the preservation of materials in New England.

Mr. BRAHM: Let's see if I can answer the middle part of your several questions first, that is the difference in preservation for academic libraries, public libraries and other institutions.

In setting up the Conservation Center -- and I can speak for it because it was set up by the Compact agreement of the six New England states through their state librarians and state library agency directors, who are its administrators -- we do not perceive any difference between the libraries, the institutions and the public units of government, including town governments in New England, and their materials, needing preservation.

The Center is intended to treat the problems of all public institutions wherever their materials need preservation. We felt there was a great need for this Center because it is only in the

past ten years that preservation really has come into the consciousness of our librarians and our trustees and our public officials who had to do with public documents, just as suddenly we are realizing that a fuel crisis has burst upon us in the past two years. And all of a sudden the materials that we were not preserving but storing since the origin of this country, our pollution and the way we were treating them, our lack of responsibility for preservation has caught up to us. We are all now realizing this; that our efforts have to be more than normal to try and take care of it. This is why we set up the Conservation Center.

ARTHUR J. KISSNER
Chief Librarian, Fitchburg Public Library
Fitchburg, Massachusetts

WRITTEN TESTIMONY

I am grateful for this opportunity to submit written testimony to the National Commission on Libraries prior to your New England hearing. I wish to provide you with some of my observations and suggestions on matters relating to the networking of libraries and your responsibility to develop plans for the coordination of library activities.

For the past twelve years I have been the Chief Librarian of the Public Library in Fitchburg, Massachusetts, an industrial community of 43,000 and a business center for approximately 180,000 persons in north central Massachusetts. The city is well known in the library field for its Youth Library, a unique and very modern library facility for children opened in 1950; a new main library now adjoins this facility known as the Wallace Library and serves adults. In 1962 the Fitchburg Public Library became the first regional library center under the regional library plan for Massachusetts. Thus, I was involved in the planning of the regional system for central Massachusetts and I have observed the improvements in Fitchburg's ability to serve as a resource center for the city and the region and the ability of smaller local libraries to improve service in their communities.

The development of the regional public library system in central Massachusetts, where Worcester serves as the headquarters for the system and Fitchburg as a sub-regional center primarily for the northern area of the region, has brought about several significant improvements in the library

service for our area. From the out-set the regional plan recognized the need for residents of the region to have free access to the larger collections and more special materials and services in Worcester and Fitchburg. Therefore, the regional plan provided for unrestricted use of the city libraries by all adult regional residents. This provided an immediate and significant improvement in library service for the residents in many of the smaller towns who required materials and/or services available at the larger libraries and were willing to travel to obtain them. During the past eleven years in Fitchburg we have experienced a steady increase in non-resident use of the library and this trend is continuing as more people become aware of this option available to them. In the last fiscal year for the period July 1, 1972 through June 30, 1973 we issued more adult library cards to non-residents than to residents. Thus, slightly more than 50% of our new adult library card holders live outside the city of Fitchburg. Ten years ago this percentage was approximately 20%. During the past year, the introduction of borrowing privileges for children living outside Fitchburg has further increased regional services offered. Children come to Fitchburg to take advantage of the larger book collection, and for services not offered by their local libraries such as the art loan collection, the children's record collection and listening facilities, filmstrips, audio cassettes and other audiovisual materials. They also come to participate in special programs.

Fortunately, the regional plan recognized the importance of improving the book and other collections of the regional centers, and significant state and federal funds were provided to the Fitchburg Public Library for this purpose since 1962. These state allocations and federal grants came at a most opportune time, for soon after the initiation of the regional program, plans were formulated to build a new main library in Fitchburg three times the size of the original 1884 building. Thus, The Wallace Library, which was planned as a regional center and built with a private gift of \$650,000; an LSCA grant of \$380,000 and \$275,000 in city funds opened in 1967 with thousands of recently purchased books. Although the library has not as yet achieved its objective of 100,000 currently useable adult non-fiction titles, generally recognized as a minimum standard for a regional resource center, more than one-half of the approximately 70,000 non-fiction adult titles available were purchased during the past eleven years; about one-third of these were purchased with state and federal funds provided by the regional program.

These are but a few indications of improvements in the quality of library service from a regional resource center that has been brought about by the regional program. It is unfortunate that federal funding of the regional program should be reduced (or perhaps eliminated) at a time when the success of this feature of the program has been so clearly demonstrated. It is obvious that regional resource libraries, such as the one in Fitchburg, must continue to rely upon state and federal funds to maintain and increase its collections to serve a growing number of city and area residents.

In addition to improving the collections of materials at the regional centers, the regional plan created a pool collection of books to be shared by the town libraries. This has significantly increased the number and variety of books available to the residents of the towns at their local libraries. Although I work in Fitchburg, I live in the neighboring small town of Ashburnham and have observed the growing number of regional books that are available to the town library, not only in the shelving section set aside for new books but also generously interspersed in the non-fiction stacks throughout

the library. As a result, I have found that it is often easier to obtain recent and popular books from the Ashburnham library than from Fitchburg. Through workshops and other meetings the regional program has provided a certain amount of in-service training for librarians and greatly increased the contacts between librarians in this somewhat rural section of the state. It has also developed an interlibrary loan service and a comprehensive 16mm. film collection, which can be better explained by those working more directly with the regional program.

Federal special purpose grants, such as the ones awarded to the Fitchburg Public Library, have also served to extend library service to city and area residents. They have also enabled a library such as ours to experiment with new programs and new materials, which are unlikely to be funded by the city. A \$25,000 LSCA Title I grant in fiscal 1972 enabled the library to further develop its outreach program and create a multi-media community learning resource center in the Fitchburg Youth Library. This new center is providing area residents with non-print materials, such as filmstrips, audio cassettes, slide sets, transparencies and other learning materials. It is also providing an opportunity for libraries of the region to learn from our experience in this new field of service. Previews of these new non-print learning materials were held in Fitchburg, and librarians attending these sessions were able to evaluate the potential of these new materials and related equipment for public library use. In addition, the materials and equipment are being made available for loan to the town libraries.

Other services and programs of a somewhat special nature that are planned and made available on a regional basis include Sunday service, a concert series held on the first Sunday of each month (partly funded by a Massachusetts Arts and Humanities Grant), feature film showings, an art loan service and LP record collections.

Thus, the Fitchburg Public Library - in addition to serving as a regional film and interlibrary loan center for the libraries of the Central Massachusetts Regional Library System - also serves as a reference center, a print and non-print resource center and a cultural center for the residents of the greater Fitchburg business area. Although regional funds support only certain aspects of the library's program, all the library's services are made available on a regional basis. It is our belief that this approach to library planning assures better service not only for out-of-town regional users, but for those who live within the city of Fitchburg as well.

The continued success of this program depends upon our ability to obtain both state and federal funds to support these activities. The city of Fitchburg does not possess the financial resources to provide such a variety of library services to its own residents, let alone for those who live outside its political and tax boundary. Therefore, it is crucial for us that a continuing program of state and federal subvention be provided for regional public library service.

The public does not and should not restrict its use of public libraries because of municipal or even state boundaries. (In Fitchburg we experience considerable use of the library by residents of several southern New Hampshire towns which are only 10-20 miles away and are a part of the Montachusett business region.) Furthermore, a public library cannot limit its service to a special group of individuals. For these reasons, no other type of library

service can make a stronger case for state and federal support. In Massachusetts we have a state program, somewhat limited, that supports the regional public library systems. The need for federal aid exists as well, primarily to supplement the state funds by supporting the somewhat more special services - such as film service, and interregional and interstate functions. These federal funds need to be provided not in the sporadic fashion of the past but on a continuing basis from year to year so as to enable us to make long range plans for more effectively using the funds available.

Although I believe that the regional concept has enabled us to make great strides in improving library service, I also recognize that this approach by itself cannot adequately meet the needs of all of our publics. In some respects the emphasis placed upon the networking of public libraries during the past decade may have prevented us from confronting some basic issues that can only be dealt with at the local level. This matter was the subject of considerable debate when the Minimum Standards For Public Library Systems were adopted in 1966; the minority contended that standards based solely on the systems concept provided little guidance and help for the local library. Furthermore, the systems have been primarily concerned with developing more efficient ways of providing library service for larger areas as opposed to determining and meeting specific needs of individuals at the local levels.

In most cases the programs developed - such as interlibrary loan, shared collections, resource centers, and cooperative cataloging - represent traditional types of service for our traditional clients. A real concern for serving all publics is a somewhat recent development and one that has expressed itself at the local level rather than at the system level. Also, the coordination of different types of library service - public, school, academic and special - can be better handled at the local level. Therefore, I believe that in the years ahead we must move beyond the regional systems to develop programs that will encourage coordinated efforts by different types of libraries and other agencies at the community level. The importance of this concept has been recognized in two recent publications which should provide some guidance for us: Total Community Library Service and A Strategy For Public Library Change.

The conference on Total Community Library Service placed great emphasis on considering new ways for public libraries to work more effectively with schools and school libraries. Some of the reports and recommendations relate to concerns we have in Fitchburg and may be of value to the Commission in considering new directions for federal aid programs. The Conference recognized that students require both public library and school library services and called attention to trends that are bringing public libraries, school libraries, schools and other agencies closer together. In Massachusetts the recent development of school libraries, the improvement of state college libraries and the appearance of new community agencies are making the need for a coordinated effort at the local level more obvious. The situation in Fitchburg in this respect is not unique. Up until the early 1960's the Public Library was the principal source of library service for all segments of this community. Elementary and junior high school libraries were non-existent; a room the size of a large classroom served as the high school library; an old gymnasium housed a small collection of books at the State Teacher's College. Within recent years we have witnessed the rapid development of the Fitchburg College Library, which will soon move into a new \$6,000,000 facility; initiation of library service at the city's two junior high schools and several

elementary schools; the birth of a regional vocational technical school and a community college. Furthermore, the growing use of audiovisual materials and television in the schools at a time when the public library is making such materials and equipment available presents opportunities for interagency programs in this comparatively new field of education. For example, the director of audiovisual services for the Fitchburg School System has discussed with us the desirability of cataloging non-print materials for several agencies on a cooperative basis to produce a union catalog of these materials for the public and various agencies of our area.

Despite the obvious need for interagency ventures at the local level, little is being accomplished for several reasons. Some argue that it is the professional's responsibility to initiate and develop such cooperative programs and that outside funding and/or new organizational structures are not required to achieve these goals. If this be the case the problem could be handled by the profession at large, which appears to be the current situation. However, the Commission might help by recommending ways in which members of different professions might work together to develop new strategies for dealing with common concerns with the hope that the results of such meetings will make their way down to the local level.

Unfortunately, the chances of such cross fertilization occurring between professions without outside help is not bright. Although there are several trends that may change this situation, there are still too few examples of successful and significant programs involving public libraries and schools. Many teachers continue to place a low value on the role the library can play in education, and many public librarians exhibit negative attitudes toward teachers because of their experience with what they consider unrealistic library assignments, unwarranted requests for special services, such as film service, etc. At the state level in Massachusetts attempts in recent years to create an umbrella organization for public, school and academic librarians within the Massachusetts Library Association have failed and a proposal to merge the Massachusetts School Library Association and the Massachusetts Audiovisual Association was voted down.

A case can be made for doing something more about coordinating library service at the community level. In the Conference on Total Community Library Service J. Lloyd Trump called for a completely new approach. He claimed that "until somebody comes up with community coordination in the form of a community director and board of learning resources, conferences of this type will be a pleasant experience and nothing more." No doubt others have recommended this concept, including Emerson Greenaway in an article that appeared a few years ago concerning school and public library service. Certainly I do not presume to suggest a ready answer to this problem. I do want to call your attention to the need for this type of coordination and suggest that its desirability and feasibility may differ greatly depending upon the size of the community. More prototypes such as the Philadelphia Action Plan and the Olney Project are needed to answer some of our questions and therefore, the Commission might consider recommending a federal program that would fund such experimental projects.

Mr. KISSNER: I am not going to go over my written testimony, but I

would like to point out that what I attempted to do there was to give you my experience as the Chief Librarian of the Fitchburg Public Library which serves a city of 43,000, and since 1962 has served as a regional resource center as part of the regional system program in Massachusetts. I have indicated what has happened to us as a result of that program and the benefits that the users have found.

My second concern had to do with a coordinated program at the local level, and I would like to react very briefly to your draft statement which I received on Monday, and specifically limit my remarks to the second concern that I have.

It seems to me one of our most important concerns is the development of a coordinated program of the national libraries, information centers and other knowledge resources to make sure that they evolve as part of an integrated national plan. It seems to me that among the results of this development should be a coordinated library program at the local level. I am not quite sure that this is a great concern of yours, as I read your statement. It seems to me that this is essential if we are to achieve the goal which you state in your draft, "Each citizen be able to gain access to the pertinent part of the total information resources which interest him," and I am looking at the user at the very local level. I would like to suggest a few points that seem important to me.

Number one, this integrated program must be built from the ground up as well as from the top down. I think you make that point in your statement: "That the national plan must encourage better articulation of services at the local level," and somehow encourage us at the local level to develop a clearer definition of the roles of the different agencies at the local level, generally speaking, and with respect to specific services.

Also, it seems to me, the national plan must encourage us to carry out

a needs analysis at the local level with respect to our local publics to insure that the system will provide meaningful and useful information to the people we serve.

As I see it from my somewhat limited point of view in Massachusetts, we seem to have three systems developing: the public library system, the school library system, and academic and research library programs. There seems to be no coordination to any extent of these programs at a place like Fitchburg. The user makes contact with any one of the three, but he cannot be assured of getting service from the totality if he makes contact with one of the three.

I would like to illustrate one rather small point that is of current concern to us, and that has to do with film service; I would like to make a few statements about film service and express my concern in this way.

First of all, 16 millimeter film service is a somewhat special and expensive yet increasingly important library service. During the past decade we have experienced the reappearance of older film classics and the use of these films for significant purposes in the community and in the schools. For the past calendar year our library reported a greater number of individual viewing films borrowed from the library than the total number of books borrowed, and I don't think this is unusual where a library provides good film service. The three regional systems in Massachusetts that provide this service find it necessary to impose restrictions on the use of films in schools. This is not unusual, and I believe that the American Library Association policy in this regard recommends a rather separate public library film service to the community with no attempt to meet the needs of the schools.

The argument for this, I think, is justified and points out that if we permit the schools to dominate the use of a service planned for the com-

munity, we infringe upon the opportunity of the community to obtain this service. The schools must develop their own resources of 16 millimeter films.

It seems to me that there is an alternative that might be considered and relates to my concern that we somehow find new ways of coordinating our efforts at the local level.

I would like to suggest that we try to find a way in which the schools can be encouraged to contribute to the support of the regional public library film service, especially for special types of films that can be effectively shared by these two agencies, such as feature film classics, film on contemporary issues and so on. I am not suggesting that we attempt to take over the responsibility of the schools for providing specific curriculum-related materials in this area. I just illustrate it as a very specific service that I think is a problem and as an example of a problem that may be resolved by providing coordinated service at the local level.

Ms. WU: I am quite interested in your suggestion to coordinate the film service between the school district and the public library system. I think it has something to do with tax structure, because when the tax goes to the school district, the school district is supposed to provide materials for the use of the schools, for the teachers; and when the tax goes to the public library system, the public library has another fund for its own collection.

How would you advise the Commission to go about this? In other words, can we coordinate the film service or collections between the two systems?

Mr. KISSNER: Well, one way would be to consider providing some kind of incentive funding whereby the schools might be reimbursed to some extent for their contribution to what is now a public library program. For example, one suggestion of the director of audio-visual services of the city of Fitchburg is that his teachers be allowed to continue to use the film service

but that every time a use is made, an assessment be made to the public school system of the city of Fitchburg. The credit accumulated over a period of time on the basis of use by the school system would in turn purchase films to add to the collection to provide duplicate copies of films that are creating problems for us now. It could be that a federal program or even a state program might match whatever the schools contribute.

Right now we are getting funds from the state through the regional program for the film service. We had been obtaining additional support from the federal government, which to some extent created this problem because we did get significant support for about four or five years. The film service was increased to the point where it became valuable to the schools, and now we have a very valuable resource, but I am not quite sure that it is being used as effectively as it could be. Perhaps with some kind of shared funding from the schools for this service in certain areas -- I am not suggesting that it take the place of the basic film service that the schools require; but in certain areas, such as the provision of 16-millimeter feature films and certain other kinds of films, -- it might be advisable to share responsibility for funding.

Once again, I really don't want to get into this in any detail unless you feel very strongly about it, because I am not a film specialist, because there are other people in the state who know much more about it than I do; but I want to state that it is a problem and something we can overcome by some kind of coordinated effort at the local level.

Mr. LERNER: You say, Mr. Kissner, in one part of your testimony that the public does not restrict its use of public libraries because of municipal or even state boundaries. We had testimony once in Atlanta by a librarian from Mobile, Alabama, who said that they draw from Florida and Mississippi and they encouraged it. On the other hand, we have had testimony from a li-

brarian from Detroit saying, "Well, we don't want 'those people' coming in to use our library." It was a suburban library.

Can you give us your experiences regarding the reciprocal borrowing obviously on an interstate service, and also, if you can, expand that into the areas of large metropolitan areas in relationship between suburban and inner city reciprocal borrowing?

Mr. KISSNER: Well, I don't think I am prepared to speak for large urban and suburban metropolitan areas, having had very little experience in that. In our own situation, where we are a small factory community of 43,000, but a business area for 180,000 people in north central Massachusetts, which includes about five or six towns in southern New Hampshire, we have encouraged this primarily because the state encourages us to do so by providing us with reimbursement for extending our services to people outside the city of Fitchburg. Even before the state program in 1962, many of your libraries were permitting individuals working in the community but who lived outside to use the library; but since 1962 we have permitted anyone within the state to use the library. Beginning now, this fall, we are permitting people in the southern New Hampshire area to use the library as well, justifying it on the basis that it is to the advantage of the city of Fitchburg to entice people from southern New Hampshire to come down to the city to shop.

I was surprised myself, as I indicated in my testimony, that whereas about ten years ago about twenty percent of our registered cardholders were not residents of the city of Fitchburg, last year we found that more than fifty percent of people requesting new cards lived outside of the city of Fitchburg.

Ms. WU: Do they have to pay a fee?

Mr. KISSNER: There is no fee, no.

Ms. WU: That is the reciprocal agreement?

Mr. KISSNER: Yes. Within our program, as you probably know, at least within central Massachusetts, I should say, we have a reciprocal borrowing plan that is honored by, I believe, all of the seventy libraries in our region.

Mr. LORENZ: Will the Worcester regional and the Fitchburg subregional continue to prosper with state, regional and local funds, even though federal funds may be discontinued?

Mr. KISSNER: I don't think so for certain kinds of services, and one of them that I mentioned is the film services. We just don't get enough funding for that, even though we get support from the state. It will continue to exist, but I am not sure that it will continue to prosper unless we get this additional support for certain kinds of special services, such as the film service. I know we did get some support in terms of intercommunication between the regions.

There are many ways in which federal funds could help us, but right now, for example, getting back to film service, although we have extensive inter-library loans on print materials (there is no problem there within the three regions), we do not share the film collections partly because of the terrific demand on these films and the fact that each region cannot extend its collection beyond the region itself. I think this is one way in which the federal funds can be used to provide greater coordination of and sharing in all of our services within the state.

Ms. MOORE: Mr. Kissner, I wanted to ask you a question about the in-service training which you are able to give under your regional program to libraries affiliated with you. Will you be able to continue that without the federal funds?

Mr. KISSNER: I really cannot speak to that point. I just mentioned that, as one benefit to the member libraries, Barbara Weaver, the regional administrator, and Joseph Hopkins, the head librarian in the Worcester

Public Library and the contracting agent for the program, are directly responsible for this kind of service to the member libraries. My role is that of director of a resource center in the northern part of the region; we do not assume any responsibilities for this kind of activity, so I really cannot answer that question.

Ms. MOORE: I take it that these are non-professional librarians who serve in some smaller libraries?

Mr. KISSNER: Some of them are, although some of them are graduates from library schools. But this is true of a good share of them because these are very small communities for the most part and the staff do not have full professional education.

Ms. MOORE: I relate to this because the other sophisticated members of this Commission do not feel, I am afraid, sympathy with these kinds of problems at the local level where you have this sort of situation.

While I am talking, I am sure the Chairman would concur, and all of the members of this Commission would, that you take our warm greetings to Mrs. Wallace, who was a member of our Commission who preceded this one. Of course, she has long been recognized for her fine work for libraries and I am sure we would like to be remembered to her, if you would be so kind.

Mr. KISSNER: I know she would greatly appreciate that because she has followed this Commission and she appreciates receiving the information that she has received about your work; I know because I have discussed this with her only recently. Thank you very much, Mrs. Moore.

RAYMOND DeBUSE
 Coordinator of Library Systems
 Worcester Consortium for Higher Education, Inc.
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WRITTEN STATEMENT

The greatest need of libraries in America today is to make more effective utilization of their collective resources. It is true that gains have been made toward this end through the use of new procedures and electronic technology. Most of these gains, however, have not seriously affected the relationships among libraries, and thus do little toward broadening the resources available at any one library by allowing improved access by its users to other libraries. The effective utilization of library resources means that there must be attempts made to increase the sharing of materials and information among libraries, that new channels of information must be opened not only to and from libraries, but between libraries. The challenge that awaits us now is to create functioning and useful networks of information agencies.

If libraries were to be subjected to an impartial but comprehensive investigation of their use of public monies, the resulting scandal would blacken the positive image of the library in America for years to come. Such an investigation would show that, despite a century of concern about duplication of effort and years of warnings about the folly of libraries trying (still) to become individually self-sufficient in their holdings, most libraries continue to operate in relative isolation from others.

Of course there is interlibrary cooperation, and library consortia and networks do exist. NPAC, OCLC, 3Rs, ILL, NELINET, MINITEX, HILC, and FAUL are well-known examples of different kinds of interlibrary cooperation. Some have been quite successful. Yet, on the whole, it appears that the vast upwelling of cooperative spirit and activity that has been the subject of so much of the recent library literature is in good part talk and pious intention, or perhaps just talk. Relatively few solid, continuing achievements have been made.

Cooperation is almost always difficult. It invariably involves a certain loss of autonomy for the participating parties, and autonomy, particularly fiscal autonomy, is jealously guarded by most library administrators and overseers. Even if a librarian desires to engage his library in cooperative activities with other libraries, he often cannot justify to his board or administration the expenditure of library monies on projects over which neither he nor they have absolute or even overriding control. Countless interlibrary projects have failed because of inadequate funding. Very substantial benefits must be shown before such funding is likely to come from libraries themselves, leaving us with a chicken and egg situation.

As we have found in Worcester, however, even modest outside funding is sufficient to lower this barrier to cooperation. The entire support of the Coordinator's office, after 2 1/2 years of primary dependence upon outside sources, is now being undertaken by the member institutions. Such support could never have been obtained at the outset before benefits had been adequately demonstrated.

Funds must be made available on a consistent, national basis to encourage the development of new library consortia and other interlibrary activities,

and to allow existing consortia to experiment with new cooperative programs. Local consortium membership in larger, regional consortia should also be encouraged. The Worcester Area Cooperating Libraries has joined NELINET in a natural alliance -- NELINET, with the greater resources, is proving computer-based information-handling capability, while WACL, composed of libraries in close physical proximity to one another, is concentrating on the exchange of actual library materials. The former is essential in order for the latter to be carried out. This model deserves exploration in a variety of contexts.

Sharing of resources is in part dependent upon the adaptation of new technologies to the library arena. Thus there should also be funding for research in this area. Money has been spent in library research on the application of computers, video, and the like to library situations. Such support should continue, with particular relevance, however, to cooperative users of them.

Sharing of resources is dependent also upon the ability and willingness of people to use the new technology cooperatively. Very little research has been carried out in this area. It is badly needed.

Facilitating the sharing of informational resources is a meaningless exercise if the resources that people need are not in the library. The library cannot be a universal information source. It can, however, adapt to needs of those it serves. Too little is known about how people go about obtaining the information they need, whether they do in fact obtain it, or what the nature of that information is. We should be trying to find out systematically, at all levels of social conduct.

It all means money, of course. I would suggest, however, that much of the money is already available and going to libraries, but for the wrong purposes. The HEA Title IIa program, for example, encourages duplication of materials. More of those monies should go to consortia. A larger proportion of LSCA funds should go to Title III, which would do more than anything also to encourage more multi-type interlibrary cooperation. NIH, NSF, NEH, and OE funding of library research should be better coordinated, and more emphasis placed upon developing viable mechanisms for sharing of resources among libraries and other information agencies.

Information is an increasingly valuable commodity in our culture. If libraries cannot effectively provide it, they may well be by-passed as vital parts of the vast information exchange which society is becoming, and recede to a status more in keeping with the common stereotype of the library.

LOCAL AND REGIONAL LIBRARY CONSORTIA

A Discussion Paper Prepared for the NELINET
Executive Committee, February 21, 1973

Within New England there are two dozen or more sub-regional library cooperative organizations, including various kinds of consortia, public library systems, and more limited purpose, informal cooperative groups. NELINET has formal ties with two of these organizations, the Worcester Area Cooperating Libraries and the Boston Theological Institutes, both of which are members of NELINET. In addition, it has an informal relationship with the New Hampshire College and University Council.

Questions have been raised as to how these and other similar organizations

should relate to NELINET and, perhaps more importantly, how the local and regional efforts affect one another. Most cooperative library organizations have essentially the same general purpose: to provide more effective library service through the sharing of resources -- money, materials, and people. Specific goals vary considerably, however. The primary goal of NELINET is to reduce the rate of increase in the costs of processing library information. The major goal of WACL, on the other hand, is to make more effective use of the library resources of its membership.

Functional Differences

This difference in major objective should not be taken as an indication of a wholesale difference between the two consortia -- both hold the other's main goal as a secondary objective. Yet there is still a difference: the local consortium is generally more directly concerned with service to the library user. The local consortium usually consists of a geographically "natural" grouping of libraries (subject library consortia often excepted), among which materials sharing is usually easier than with libraries located at a greater distance. Thus the local consortium would seem to fill an "ecological niche" that may be unsuited to the regional consortium. The libraries of Worcester would hardly expect NELINET to provide some of the services that WACL does, such as twice-daily interlibrary book delivery.

The regional consortium, because of the distance factor, must almost of necessity concentrate on handling data rather than materials. Centralized processing of new materials is a possible exception to this "rule", but the amount of autonomy that individual libraries and local library consortia must relinquish to the regional center in such an arrangement is a serious stumbling block to the success of that kind of cooperative effort. Witness the fate of the Colorado centralized processing project. The Massachusetts BCL effort has succeeded so well because the central authority, in this case the state, holds the fiscal control.

Thus the regional consortium usually attempts to provide regional computing facilities for the technical services. Computers can be made to act efficiently upon certain kinds of library data at a distance. This efficiency increases as the number of libraries using the facility increases, up to a limit.

Economy of scale, then, provides strong reason for local consortia to participate in regional network data processing. To do such processing locally may be much more costly, particularly if it means that a large, general-purpose computing system serving a variety of users must be utilized. If, however, a dedicated mini-computer can be used, the balance may tip toward the local effort for some library functions. This seems not to be true of cataloguing which, as accomplished with the OCLC system, provides economies through the widespread sharing of data. It requires a fairly large CPU for the complex functions required by shared cataloguing. Serials control may also benefit from a sharing of data, although the argument seems less strong. The regional system would appear to be less likely to hold advantages in the area of ordering. This would be particularly so if ease of resource sharing among libraries is in part a function of the distance between the libraries in question, making success in acquisitions coordination (and subsequent sharing of acquired materials) more probable on a local level. A local cooperative ordering system could probably be better adapted to the conditions presented by a specific coordination scheme.

Circulation control also, because of inter-institutional sharing and a relatively high volume of transactions, may be better accomplished on the local cooperative level.

These considerations assume, of course, that most libraries are geographically located in relatively close proximity to other libraries with which these kinds of cooperation are possible. There are probably few New England libraries for which this would not obtain. I am ignoring here the political problems inherent in the creation of viable local consortia, however.

Would widespread local cooperative activity weaken the regional consortium? On the contrary, in some ways it may in fact strengthen the larger effort. Libraries would affiliate with it in blocks, as has happened with WACL and BTI in NELINET. The mere existence of a local consortium apparently aids in disposing reluctant librarians to join in a regional effort. Local consortium staff can assist in the development and implementation of regional systems perhaps to a greater extent than can the staffs of individual libraries. In addition, local processing systems could in fact be developed by the larger network and then installed within the individual consortia throughout the region, much as replication of the OCLC system is being planned in various parts of the country. Such a scheme would facilitate interfacing of the local and regional computer systems.

In considering alternatives such as these we must not reject out of hand the possibility that the OCLC dream of cataloging, ordering, serials, and circulation processing all on one large, central computer may not prove effective and economical. Conversely, we must not accept the entire dream without questioning its practicality for each of the functions mentioned.

Problems

There are dangers in creating formal relationships between local and regional library consortia. One is that a multi-state regional development effort is almost certainly more difficult to fund from within the region than is a project that does not traverse state lines. Funding from a national source would obviate this problem, but such funding is becoming more scarce, particularly for hardware-oriented proposals such as a computer system.

Another potential danger is that the regional activities could conceivably undermine purely local cooperation. If the regional activities offer greater cost benefits than the complementary local activities, and if each library is a node in the regional computer network, the primary focus may be given to the regional effort, and worth-while local activities could languish. This situation could be hastened if the regional consortium became quite powerful and its staff did not perceive the advantages and the often tenuous nature of local cooperation.

There is another aspect of this as well. I have looked at library cooperation particularly as it facilitates processing. There are, of course, other areas in which cooperation is being carried out: reference services, direct cross-borrowing, development of media centers, central storage, document delivery, micro-filming, and document preservation, to cite some of the more common examples. Only a few of these have been alluded to above, and

none has been dealt with in any detail. My discussion thus reflects what seems generally to be the emphasis in most deliberations about regional cooperation: the computer-based processing capability precedes all else. Perhaps this is necessary, that there would be no regional deliberations if it were not for this concept. I have suggested as much here. Yet, the library may be in danger of becoming an efficient but uneffective provider of the kinds and forms of information needed by our changing society, a computer-based anachronism. Perhaps we should be looking more at direct information services, at cooperative means of developing multi-media capabilities, or at new forms of library service, such as utilization of CATV and other means of delivering information beyond the library walls. Some of these things are now being attempted on a local level. Such efforts should be encouraged. Regional and even national networks are of value only as they can keep costs down and enhance service. If there is less service to enhance, because information is being obtained elsewhere than from the library, will we have gained anything for our labors?

One of the reasons for forming library consortia has been to reduce duplication of effort. We are now faced with the spectacle of having moved from duplication among individual libraries to duplication among library networks. Actual or threatened competition between various library networks is not at all unusual. Consider the proposed Harvard-Yale-Columbia-New York Public cataloging system. Consider the UMass system. What if several local consortia in New England decide to install Bibnet (if that becomes possible)? Economics of scale are going to evaporate if extensive duplication does develop. Ultimately, one or two systems may succeed and thus keep others from being implemented. If several are implemented, however, some may have to fail.

It does not appear that there is any easy way to inhibit duplication at this state. Some mechanism for bringing together representatives of library consortia, including public library systems, in New England on a regular basis may have some effect. Perhaps one of the professional associations could be induced to sponsor a conference out of which such a mechanism might emerge.

Conclusion

A number of functional relationships, actual and hypothetical, among different levels of interlibrary cooperative organizations have been touched upon. Organizational relationships will in some measure be determined by whatever form of functional relationships ultimately develop, tempered by political considerations. We will eventually have to face up to the problems in these areas as well. For now, however, it is important that we understand what can be done at each of the various levels of library organization. Until we can see what NELINET, the New England Library Board, WACL, BTI, state library networks, and all of the other cooperative organizations in New England can and should each be doing, we are not going to be able to obtain the optimum benefits possible from cooperation.

Mr. DEBUSE: I would just like to comment today briefly on your draft proposal for a national program or a national library service.

Chairman BURKHARDT: Before you do, I might say, for the benefit of the rest of the audience that we sent out to all of the witnesses who were listed a draft proposal of a new federal program which is very tentative and is the first step in what we think the Commission really ought to be concerned with, and that is the drafting of a national program, and the witnesses have had copies of that. I believe there are some copies available for those of you who would like to pick one up. Our purpose in disseminating this is to get as much response to it as we can at this stage so that we can refine and build it into something that is really substantial and accurate and reflects the needs and the suggestions of both the experts and the general user of libraries and information.

So now, Mr. DeBuse, will you make your comment, please.

Mr. DEBUSE: As someone who has worked actively in the area of inter-library cooperation, I certainly endorse the approach that is represented here, but I would like to voice a word of caution.

In your proposal, and in my written testimony that I have given to you as well, I see something of a tendency toward seeing the network or networking as a panacea for librarian information problems, and I think this is a mistake. Distance and access are not the only problems that have to be solved. Indeed, I think there are some other problems that come before these.

Let us go back to the interstate highways again. In your proposal you make the analogy between an interstate highway system and a national information network, and this is, I think, a valid analogy; but keep in mind that with the interstate highway system there have been vast social and physical and environmental readjustments caused by the development by specialists of this elaborate network. I would suggest that what we ought to be considering before we propose a national network is some sort of social-informational-environmental impact study. Specifically, I think we ought to look at the

first, two assumptions in your list of priorities and objectives in planning librarian information services for the nation.

Number one is users - to identify the various types of users and to determine their information needs.

The second one is to determine the adequacy and efficiencies of current library and information services. I don't think that your proposal takes these into adequate account.

A national bibliographic network modeled after the OCLC network is going to be useful to a very small proportion of the population. I think we have to look more carefully at the vehicle of information, not the roadway or the pathway -- the network -- but the means by which information is contained -- the book, the film, the video tape, whatever -- and determine how these are being used, how effectively these are being used and what alternatives there are to them.

How do people obtain the information they need for everyday living, for business, for research, for scholarly work? I don't think that this question has been satisfactorily answered. The social implications of any network are going to be immense, and I think that we should take a good long look at these basic questions before we start designing the network. I would suggest that it is up to the Commission and other national agencies to try to determine what the social impact of various kinds of informational networks might be.

Mr. LORENZ: Can you tell us specifically whether your Cooperative is made up of all types of libraries, and then specifically how are you using NELINET?

Mr. DEBUSE: The Cooperative is made up of fifteen libraries: academic, including university, college and junior college; public library and special research library. The medical library and the Worcester Foundation for Experimental Technology, the Art Museum Library and the Antiquarian Society

would be special libraries. We have not involved ourselves formally with school libraries at this point, although I certainly anticipate being able to articulate in the future with those as well.

Mr. LORENZ: Those member libraries are giving you financial support, cash support?

Mr. DEBUSE: Yes, and I might point out that we have had funding from federal sources through the state, that is, LSCA. We have had other funding from local private sources. This year for the first time these fifteen libraries are paying the entire cost of the development office which I head; it is a very small office, but it is a significant step. I don't think there is any possibility that three or four years ago they would have considered spending this amount of money to set up this office when they had no knowledge of what good might come of it.

Mr. LORENZ: Could you give us a rough estimate of what degree of library use your cooperative represents in your region?

Mr. DEBUSE: I am not exactly certain how you mean that.

Mr. LORENZ: Well, of all of the libraries serviced in the area, how much would be represented by the libraries that support this program?

Mr. DEBUSE: I see. The school libraries are the major group that is not represented. I am not quite certain what proportion they might represent, but outside of the school libraries, close to ninety or ninety-five percent of the libraries are involved with our cooperative in one way or another.

Mr. LORENZ: Then going on to the second part of my question now, are you using NELINET?

Mr. DEBUSE: Let me point out that the Worcester Cooperative Libraries is itself a member of NELINET and as such we are installing terminals on the shared cataloging system now in operation with OCLC through NELINET. We are already operating in two libraries and anticipate expanding soon to two more,

and I hope to be able to continue until all are involved. When I was brought into this Cooperative, the stated objective was to develop computer-based cooperative processing capability, and it seemed to me foolish to do this when it was being done elsewhere, so we are now developing these capabilities through the larger network which is likely a more cost-beneficial way of going about it.

If I might comment further on your draft proposal, you state that you want to maintain the same degree of autonomy for local libraries that has been traditionally the case. I don't see any sort of network cooperative that is going to maintain the same degree of autonomy for the individual library. Cooperation necessitates giving up some degree of autonomy.

Mr. LERNER: Mr. DeBuse, you referred to the information delivery capability of CATV in your paper. Let me ask a couple of questions on that.

Number one, within your system now, do you see cable as a delivery system through CRT data bank into the home, or do we limit it to story hours on video tape? In what areas do you think it really has meaning?

Mr. DEBUSE: At the moment no one in our group is using CATV. There is cable television in the area, but it is relatively undeveloped. We are exploring this technology now.

From the use of the system, I think, a great deal has been made of CATV reference service, which I think at this point is probably not very successful and will not be for some time. I do feel that once you combine the CATV system with the computer system as you suggested, significant benefits will be possible. A two-way CATV system would be required, and these are expensive. They are being installed very rarely now. I am not going to rule out the story hours or video reference or any other kind of informational service that the library might be able to provide through that channel, through that cable. I think it is wide open.

Mr. AINES: Your document that you provided us is an extraordinary statement of honest views.

Mr. DEBUSE: Thank you.

Mr. AINES: For example, in your last statement you point out that information is an increasingly valuable commodity in our culture and that if libraries cannot effectively provide it, they may well be bypassed as vital parts of the vast information exchange which society is becoming and recede to a status more in keeping with the common stereotype of the library.

Let me read one more item and then I will ask you to comment on these as you wish: "If libraries were to be subjected to an impartial but comprehensive investigation of the use of public monies, the resulting scandal would blacken the positive image in America for years to come."

Now, these are pretty strong statements and I know you feel strongly enough to put them in. You might want to elaborate a bit for us on that.

Mr. DEBUSE: Well, I would find it very difficult to prove the second statement that you cite, but I do feel from my work in interlibrary cooperation, from what I have been able to see just within the Worcester area, that there is a tremendous amount of duplication that is unneeded. I might point also to a tremendous amount of needed duplication that does not exist, so there is another side to this story as well.

Librarians and non-librarians alike are getting away from the idea that every library must be self-sufficient, and certainly in the public library field the concept of sharing has been relatively well developed, as within the central Massachusetts Regional Library System; I would wager that there is even there a vast amount of really unnecessary duplication.

I don't want to dwell on this too long because it is something that many people have pointed out, and maybe, even, there is not as much duplication on a national scale as we might imagine, but from my experience, I would not

accept this latter possibility.

Mr. LORENZ: Are there other examples of your kind of cooperative in Massachusetts or New England that you know of?

Mr. DEBUSE: Well, there are other cooperatives, yes. Some of them are in various stages of development, some of them carry out programs that I think that we in Worcester would like to, but so far are unable to. To my knowledge, though, there are very few local cooperatives such as ours, where the member libraries have made a point to make the thrust of their effort through a central planning office rather than getting together and trying to plan programs with their internal staffs.

Anyone can develop a union list of serials, for example, and everyone does; we have. We are right now, however, trying to develop a list of non-print materials and institutional guidelines for the lending of these materials. That is more difficult, and I would suggest that this kind of project would be virtually impossible without some kind of central office or central person to deal with it.

Mr. LORENZ: Is there a basic description of what you are doing in print somewhere?

Mr. DEBUSE: I have had occasional newsletters which collectively describe what we are doing, but as a survey, no.

Mr. LORENZ: I would like to see what you have in print, and I think other members of the Commission might also; it seems to me that what we are hearing from you comes closer to an element of the network plan that the Commission is considering than almost anything else that I have heard in terms of a regional application.

Ms. MOORE: Is your central office funded from each of the fifteen libraries and do they have a share equally, or how is your office funded?

Mr. DEBUSE: It is funded by the fifteen libraries, but on an unequal

basis, with assessed fees for both the operating program and for the development effort. Assessments vary on the basis of book budget, which is not entirely fair but is the best means that we could arrive at.

Ms. MOORE: I am sure you have also had the unequal contributions from revenue-sharing that has caused the problem.

Mr. DEBUSE: I am not quite certain what you mean by that. To my knowledge, and I may be wrong in this, there are no revenue-sharing funds being used for libraries within our immediate area.

Ms. MOORE: Do you mean none of the libraries in your immediate area are getting federal funds?

Mr. DEBUSE: Well, keep in mind that the public library, the Worcester Public Library, is the only public library that is directly involved in WACL.

Ms. MOORE: I didn't understand that.

Mr. DEBUSE: Yes.

Mr. BECKER: Mr. DeBuse, I am inclined to say that I like to think that your idea of a social-environmental impact study is a very useful one. Did you do anything like it prior to the establishment of your Cooperative system? What actually prompted its establishment? Was it social need or was it economy?

Mr. DEBUSE: It certainly was not social need. It was economy, and no, nothing of that sort was done. I have proposed that we embark upon that kind of study within our area. There is some agreement that, "Yes, we should do that," but it has ended up way down the list of priorities. It is not going to be funded unless I can somehow find the time to really push it. Yet if I do that, I will not be accomplishing the things that I am expected to accomplish. So I am really in a bind in that regard.

Chairman BURKHARDT: Mr. DeBuse, I do want to urge you to send us your comments on the national plan, especially on those aspects of our draft which

you think have been neglected at the expense of the emphasis on networking. We would be very interested in hearing from you on that; and that, I should say, goes for any other witnesses. We do welcome your comments on it and hope that you will write to us about it.

NOLAN LUSHINGTON
 Director, Greenwich Library
 Greenwich, Connecticut

WRITTEN TESTIMONY

This is in reply to your request for written testimony dated July 10, 1973.

As I understand it, you would like us to choose one of the six topics mentioned in your letter to comment upon. Therefore I am aiming this letter at No. 2 - Priorities for Service, with perhaps some side comments on No. 3 - Regional Resource Centers.

It seems to me that national planning should obviously be directed at coordinating state and regional level planning that is in existence. Therefore, I think it would be useful to establish some kind of structured liaison relationships between the National Commission on Libraries, the American Library Association, the New England Library Association and the various state library agencies. This will be needed especially in coordinating the development of service to the unserved since all too often service to the unserved has fallen into a crack between local library service and state library service. An example of how this could be coordinated might be the question of who are the unserved. Librarians have constantly been requesting money and thinking about innovative concepts for serving these unserved people. However, there seems to be no general agreement in the profession on how they can be identified or characterized and there are very few surveys of non-library users in the literature. Perhaps the National Commission could concentrate on research to uncover various characteristics of the unserved. For example, a profile of the typical non-library user would be extremely helpful with an emphasis on ways in which the non-library user can be reached. I would see the National Commission's primary role as a switching station whose function it is to pass research information from the university and researchers into the field in general where it can be utilized for improving programs. In this connection regional resource centers are in many cases ill equipped to provide the kinds of general research on which their services should be based. For example, regional resource centers often try to set up information centers to service questions that cannot be answered on the local level. It is very difficult for these regional resource centers to do this since so little information is available on the cost of answering a typical non-local reference question. Research on this is not generally available in the field even though it may exist in higher level educational institutions. It is important for us to know a little bit more about how regional resource centers can be structured and who uses them before we can develop criteria for their operation. For ex-

ample, in the Fairfield County area we are quite concerned about the lack of sophisticated material coming into the public libraries in this area. As you know, approximately over 25,000 titles are published in the United States each year. Our best estimate indicates that only 10,000 of those titles are currently going into Fairfield County libraries and in most cases these 10,000 titles are duplicated again and again in libraries within these areas. What we don't know is how many people in this area would utilize the other 15,000 titles if they were available. We are also unaware of innovative methods of storing and gaining access to very little used materials that could perhaps be purchased and stored in a relatively inexpensive warehouse type environment somewhere in the county. There must be many suburban areas all over the United States with a similar kind of problem yet no one is available to pinpoint the research needed to make literature searches to determine if the research has been made and to direct information about available research to the local level where it could be utilized.

Although it is not included in your list of topics, I feel very strongly about the question of federal funding for libraries and am a little surprised to find that it was not included. Many practicing librarians find it difficult to understand why the National Commission is not taking leadership in this important area or if they are taking leadership, it would be useful to have your leadership role publicized more widely. Certainly if we are not to be concerned with funding for public libraries on a national level, we are probably the only civilized nation on earth that is not supporting funding for libraries on a national basis. I believe it would be useful for the National Commission to take a stand on this issue. If they are for funding on the national level for libraries, what is their position on the kind of purposes of national funding? Should national funding find its way down to the local level to supplement local funds; should it be used on the state and regional level to create regional reference centers or should it be used merely for research? It would be useful to know what the Commission's stand is on this kind of federal funding.

Mr. LUSHINGTON: Members of the Commission, I had a chance to glance at your report and suggestions about the national library network. I am certainly not an expert in this field, knowing very little about computers. However, it certainly is a breath-taking concept very much overdue.

I would like to reinforce Mr. DeBuse's comments and add a particular sidelight of my own that relates to the written testimony that I sent to you earlier, and that is, that I do feel that we should be very interested in user needs and emphasize research into user needs before we emphasize the overall network concept.

Many of the details of the proposal seem to emphasize technology rather than user needs. Since any document that this Commission produces is bound

to be a political and public relations document as well as a technical document, I hope that it will de-emphasize technology and the use of technological terminology, and emphasize user needs, especially research into user needs, before a final network description is produced.

I was interested also in the question of regional library service. You heard Mr. DeBuse's testimony and that of earlier people this morning relating to regional library networks in New England. From your point of view you are looking at New England as a region and from the point of view of many of the practicing, working librarians in New England, we are looking at smaller intrastate cooperatives as regions.

Mr. DeBuse's region, for example, and the region that I am a trustee of, the Southwestern Connecticut Library System, which is doing some of the things that the Massachusetts regionals are trying to do but with less state support and less state funding, are a backup support for individual libraries.

Another concept that I am sure that you have dealt with and are alert to is the difficulty of national library legislation that uses the state as a unit of service. The states vary tremendously not only in population, but even those of similar population size vary considerably in the distribution of population and in the way in which library networks can be organized within the state.

For example, in my own state, Connecticut, although it has quite a large population of several million, the largest city is 150,000, and we are divided into a strict town framework. We have no county governments. Thus the largest single tax-supported unit of service is a town of 150,000. It is questionable whether that tax base can support regional library service. So that we will need different kinds of standards and we will be a different kind of political unit from other states similar in size to ours.

I thought that perhaps I could also mention for a moment that I was

fortunate enough to have a fellowship to study English medium-sized libraries last year, and in the course of that study I had an opportunity to see their system of national library bibliographic control.

They divide the range of subject specialties into surprisingly small libraries; that is, a relatively small town library serving 50,000 people in England will have a national library bibliographic specialty under which they will be expected to apply their own town budget to purchase all materials in that narrow subject specialty.

What this means is that all of these libraries have extensive closed stacks, usually compact closed stacks. Whenever interlibrary loans come to these individual libraries, they have to take the staff's time to go to the closed stacks to find the books requested, package them, and mail them out. They use regular mail delivery.

This is not as great a problem as it would be in the United States, but it does seem to me a rather cumbersome system and it rather overbalances the book collection in these individual libraries in terms of local service needs. It would seem to be more economical to create regional reference centers whose sole function would be to serve these in-depth needs rather than to require the individual libraries to serve them.

Chairman BURKHARDT: You spoke of what you thought was a typical question, of using the state as the unit of service. Now, obviously the states do vary and that does provide a great difficulty to act as though they were uniform. What other unit is practical?

Mr. LUSHINGTON: Well, I think that obviously we have to deal with the political reality, which is one of the points I was making earlier. We have to gain the states' cooperation and support for any national library network that we set up. I am merely suggesting that the standards be organized in terms of user needs rather than political entities, so that you permit a

great deal of flexibility. Now, obviously I don't have any solutions. I am just here with the questions in that particular case.

Mr. BECKER: A few months ago, and this is just for information, we did have our only conference on user needs in Denver, where we invited thirty people to spend almost a week discussing user needs. These were not just librarians; I think the preponderance of invitees was from lay groups and it included the minority groups, the culturally deprived and the institutionalized. We are soon to issue -- maybe Chuck can tell us when -- the document which records these proceedings.

We did this with a little trepidation because, as you know, user needs can be expressed as a function of geography, age, specialization, level of education; it is a kind of multidimensional problem and awfully difficult to get a handle on. We would like, I think, to see more research done in this area but are not sure how to go about it. Do you have any suggestions?

Mr. LUSHINGTON: Well, one concrete suggestion that I am currently working on is a combination of a librarian and a marketing person from an advertising agency. I think the advertising people, marketing people, have created quite useful methods of statistical research into determining from in-depth research what the user really needs, what he will respond to.

However, I am not familiar with any research that is focusing on the needs of the non-library user, finding out who the non-library user is and finding out what the relation to library-user service is. It seems to me this would be a good approach: an in-depth survey designed by a librarian and an advertising or marketing person in a very limited community area, which would give us some kind of information that I think we do not now have.

Perhaps it would be useful to gain different kinds of statistical insights into library use. I am sure you are all familiar with the Rutgers project on the measurement of library effectiveness. I think this is one study

trying to differentiate between libraries by using different kinds of statistical methods than those currently practiced.

Mr. STEVENS: Mr. Lushington, in your prepared statement you suggested that there was a need for a more structured library association, and I am wondering if you would tell us how that structure ought to be worked out and what the ties ought to be, rather than the more informal structure that now exists, and what agencies you feel we ought to be in touch with that you feel that we are not in touch with now.

Mr. LUSHINGTON: Let me perhaps cite an example. In looking over your national network proposal, I came across several times the term "standards," and in flipping through here, on page 12 you say, "Supporting responsibility within the state so that they meet standards which qualify them to meet the standards and services available through the national program."

Now, if the standards qualify them to meet the standards through the national program, necessarily there must be input as to what those standards contain, and I am sure you are all aware that the ALA is currently the body that seems to set national library standards. I am not sure exactly why; I guess perhaps by action, custom or tradition. But it seems to me there needs to be some kind of relationship between this Commission and the standard-setting body, whatever it may be, if these standards are going to be utilized to qualify libraries to be members of the national network.

Mr. STEVENS: Well, it seems to me that you don't have any specific channels that you think we ought to use more than we are already using them. We are in contact with the standards group at ALA and we will be speaking with Mr. Wedgeworth on Friday. We are continuing those contacts to make sure that what we do is in line with what they have in mind, and that the standards that they are proposing are realistic from the point of view of the Commission.

The same thing goes with all kinds of specifications that they are work-

ing on, the statistics handbook and so on. We are trying to make the input there. I was hoping that you had some new ideas that we are not following.

Mr. LUSHINGTON: No. That is probably due to my lack of familiarity with what the Commission is already doing. However, perhaps I could comment that the input should be more in terms of policy rather than in terms of specific standards. Perhaps it would be the Commission's function to settle policy for standards.

We all, I think, suffer from the concept that American library standards for the last twenty years have been goals and not achievable standards in the sense that fifty percent of the libraries in the United States do not meet existing public library standards. Perhaps it could be the Commission that could recommend that standards should no longer be goals but should be feasible, financially achievable standards; and this as a policy might be communicated to the American Library Association or some of these other bodies that you are already in communication with.

Mr. CASEY: You have turned from technology and seem to be more concerned with user needs. Would you respond to a question I have? Is it possible we have non-users of our libraries because our educational systems in our states are deficient in the elementary schools and the high schools, the educators are not teaching people the value of reading and how to read, they are not teaching them the value of good literature; so, therefore, beyond the mandated book review in the English class, once the user goes out he is not a user after high school because he is not taught in the school the appreciation of books and good literature?

Mr. LUSHINGTON: Well, I try to avoid giving opinions of other educational institutions, but I could comment that I am familiar with what is happening in libraries, not only in my own libraries but in other libraries in the state of Connecticut and elsewhere. It seems to me that there is

very little capability within the libraries and within the publishing industry to make available materials in formats that would be more acceptable to non-library users than the traditional book format. Therefore I think that is an area where there really is a need and where there can be a lot done. But as to the current thrust of other modern educational institutions, I certainly would not want to comment on that.

Ms. WU: I would like to make some comments on a couple of points. Now, in talking about use and need, since to me this is a local problem, the library itself should set up a book selection policy and you can even have a committee, a book selection committee, which will contain or consist of people from the committee to decide what true needs your community has.

Another thing concerns regionalization. In your introduction you said something about New England and the cooperatives. I think in this part of the country your regionalization is a little bit different from what I know in California. In California there is the Los Angeles County Library System, which is a regionalized library, although it is under the county library and it is under the county government, but it does have different regions. Now, your regionalization means different units joined together and becoming regionalized?

Mr. LUSHINGTON: I am not too familiar with the California practice, but I am not sure there is as great a difference as you seem to feel. However, as I understand, the California county library systems make use of existing libraries.

Now, this would also be true in New England. The New England regional systems make use of existing libraries and they have superimposed on that a relatively small staff of people whose job it is to help to develop those libraries and help to give cooperative services that the individual library is not capable of.

I am not sure how much more than that California system does.

Ms. WU: Well, the California libraries are under the county government, but it is under one system. But it has been divided up into different regions, and under the regions there are branches. Does that apply to the New England systems?

Mr. LUSHINGTON: But these individual libraries and branches still have local funding and local boards of trustees.

Ms WU: Right. The county government pays for it.

Mr. LUSHINGTON: The county government or local town governments?

Ms. WU: Oh, I see. The little towns will contribute their taxes to Los Angeles County and Los Angeles County will allocate their funds.

Mr. LUSHINGTON: I see. Well, in New England the money comes mostly from tax support from the local townships and not from county governments. However, it is also a mistake to think that all of the New England states are the same, because in Massachusetts you have considerably more state funds going into regional systems, as far as I understand, than you do in Connecticut, where there is no state funding for regional systems. The regional systems depend solely on local contributions for their funding, so it is a matter of different situations.

Mr. LORENZ: Have you done a user study in southwest Connecticut, Mr. Lushington?

Mr. LUSHINGTON: No, we have not. We are seeking funding for a non-library user study, as I described, but we haven't yet found funding for that and the survey has not been done.

One community in Connecticut has done a very rough kind of non-library user survey to find out what media non-library users could be reached through, whether it is newspapers or television and so on; as far as I know, that is all that has been done.

Mr. LERNER: What did they find out?

Mr. LUSHINGTON: Very inconclusive: that non-library users all read newspapers and watched television and listened to the radio: I think one interesting point that the survey did uncover, as far as that community was concerned, was that the best way to reach the non-library user is to make a non-library user telephone survey, because as a result they had an awful lot more people using the library.

ELIZABETH G. MYER

Director, Department of State Library Services
State of Rhode Island and Providence Plantations
Providence, Rhode Island

WRITTEN TESTIMONY

Thank you for the privilege of submitting testimony to the National Commission on Libraries and Information Science, in conjunction with the Regional Hearing in Boston. I welcome the opportunity of presenting my views conditioned by library experience in a State agency over a number of years.

These views acquired through such experience center on the conviction that the State library agency should be a key force in achieving integrated library services. My recent official connections with NELINET (New England Library Information Network) and with NELB (New England Library Board) have reinforced this opinion. Only where there is strong leadership and expertise at the State level can there develop sound networks within the State and operative networks at a regional level. Obviously an immense strengthening of State library agencies is required to reach this goal, and this requirement appears in the 1970 revision of Standards for Library Functions at the State Level. It is gratifying to encounter this policy not only in the legislation of the Library Services and Construction Act Amendments, but in the thinking of the National Commission on Libraries and Information Science.

A great deal needs to be done generally, to upgrade existing library services. There is no strength gained by linking weakness with weakness. The citizen usually meets library service at the lowest level, and this can represent to him or her what is available. The new tide of decentralization and direction away from bureaucratic control must accordingly be paralleled by the development of sound, alive, and efficiently functioning outpost libraries so that, when networks are perfected, the end result is service to the local enquirer. This building up of local agencies is largely the province of State government. Nevertheless, the Federal input is and will continue to be invaluable in a major way in providing incentives for innovation and funding for linkage.

The irony of the proposed withdrawal of Federal funding and of Federal

oversight at the very onset of significant long-range planning done by fifty State library agencies is striking. Many such plans, shared by State library agencies, have shown a new thrust, each tailored to the state of the art in its own home State; but each eminently usable as a tool to create a network at higher levels.

The need of such a body as the National Commission has become increasingly apparent. From its situation in the Federal government it can provide a sounding board for information from a cross section of citizenry in all parts of the country. This information can be evaluated for timeliness, authenticity, applicability, and can, in turn, be fed back in the form of sound, long-range planning.

If our nation is to maintain some responsible leadership in the world, better means of providing information is essential. Not only officials in government but the electorate should be able to act intelligently because of knowledge adequately available. Hopefully, the Commission can point the way for achieving this.

New flexibility, new knowledge on sources, new means of tapping them, new summation and distribution of information, and new speed are urgently required in the field of research. Besides strengthening resources for research, a pattern of utilizing them fully should allow a real opening up of riches of knowledge held in this country, in identifying and organizing them for use. Present methods are too haphazard, too privileged, too slow, and too unpublicized.

There is expertise in the profession, which, given an opportunity with funding, could devise with the Commission's help a plan for identifying and preserving informational materials and records. New England should be a leader in executing such a plan.

On some specifics, we should like to see the Commission devoting attention to the exploration of certain matters so as to offer its recommendations in the following areas:

Evolution of a truly national network of library and information services.

A practical solution to the copyright problem, that would be fair to the originator of material but would provide a workable means of utilization.

A strong position with guidelines on intellectual freedom that can dispel the threat of a Sword of Damocles wielded by sporadic groups.

Constructive encouragement of the use of every modern technological means to identify, organize, and make available resources in information.

Enlightenment of citizens as to what libraries are offering them.

Ascertaining needs, stimulating fact-finding, promoting coordination, the

National Commission can, in its position of preeminence, prove to be the most significant factor in library direction in this era. Its role in National Leadership is timely, valuable, and welcome.

Working at the State level in a small State like Rhode Island, I can truly say that the State library agency has its finger on the pulse of most of the total library pattern. Therefore, I can testify with confidence that the three-way mix - local, State, and Federal - has been exceptionally profitable in the input from library personnel, in the sharing of ideas and ideals, and in the efficient use of funding at all three levels.

Thank you again for giving me this opportunity to express my thoughts for this hearing.

Ms. MYER: Thank you, Mr. Chairman, for inviting me to submit testimony and to appear here today to speak.

When legislation was passed setting up the National Commission in July, 1970, I rejoiced. I was proud that Senator Pell was one of the co-sponsors and conducted hearings of the Subcommittee on Education. I liked very much the role of the Commission as indicated in the legislation and I wish its future real success in achieving our national development.

In Rhode Island, the state library agency is the Department of State Library Services, which is a department of state government. The director is appointed by the Governor, and, since 1964 when the department was established, I have been appointed by Governors of both persuasions.

Before the LSCA or even the LSA was enacted, Rhode Island had not had any modern library legislation since before World War I. In 1964, our law set up a department of state government. The impact of federal legislation and federal funding is just beyond belief.

It was the prospect of the LSCA, passed in February of 1964, that allowed our General Assembly to pass that law of 1964, the first year it was introduced, and we have seen a remarkable change in Rhode Island ever since, thanks to the federal input -- not just the money that came through federal funding but through the leadership, the guidance, and we welcomed the partner-

ship of the federal government. And when I speak in Rhode Island of partnership, I do refer to federal, state, local, and not county, because in Rhode Island counties constitute no problem.

I am here to supply omissions from my written testimony and hopefully to answer some of your questions.

Mr. LERNER: First of all, I think that the library community in Rhode Island deserves a great deal of credit for putting the arm on Senator Pell. If all other states could have library-interested people like Senator Pell, we would all be in better shape.

Ms. MYER: Thank you, Mr. Lerner. You do know that we are not too modest in Rhode Island about our members of Congress, and when the LSA and the LSCA had hard going and when we nearly lost the federal program in 1961, Congressman Fogarty was on the scene.

Mr. LERNER: I want to direct myself to you. You have a list of things that LSCA should do, and I want to direct myself to one of those things and ask for your comment.

You say that we should establish guidelines on intellectual freedoms, which is one of your points. Can you comment on what you think the librarian's standpoint would be on the Supreme Court decision on obscenity?

Ms. MYER: Are we going to stay here all day, all night?

Mr. LERNER: In twenty-five words or less.

Ms. MYER: I would hope that the Commission would take a very firm stand and that we could refer to our local situations so that when sporadic flareups occurred, we could speak with authority fortified by good thinking.

Local communities certainly have their own ideas on this subject, and I would hate to see some of the local interpretations. We know what we want for free access, and I would like to see that strength behind the efforts of librarians and trustees.

Mr. LORENZ: In terms of federal, state, local partnership for library development, do you feel that libraries have reached the point where the federal assistance could no longer be categorical but could be channeled into more general purposes, such as outlined in the paper?

Ms. MYER: Mr. Lorenz, we love the categorical grants. We are not ready to cast them off and, of course, when I read words like "collapsing" and "withdrawal" I am not in that frame of mind at all. I think the legislation that was authorized through 1976 still obtains. In Rhode Island we are a total network, and I refer to all types of libraries. We are supporting -- and I am speaking of the network -- ourselves by a combination of federal and state funds. If the appropriations were impounded indefinitely, obviously there would be a serious effect on all aspects, elements of the total network, and I certainly recommend strongly that the good development that has been so conspicuous since 1964 be given encouragement and continued support for further progress.

Mr. AINES: I am delighted to make your acquaintance through your paper and also through your very wise words. I think I am going to remember one statement you made for a long time in the paper: "There is no strength gained by linking weakness with weakness." I think that is very well said.

I would like to have you reflect on something else you have said, however. You say present methods in handling knowledge obviously are too haphazard, too privileged, too slow and too unpublicized; and again I think you make strong impact, but would you be willing to reflect on what you have said and then give us advice on what might be done?

Ms. MYER: I think in our service we should accelerate the location of material and I think we should unify our efforts so that it is not haphazard. I think we should use technology to the maximum. Did I omit one, Mr. Aines?

Mr. AINES: You have reinforced what you have said, I am sure.

Mr. CASEY: One of your points is that we should enlighten citizens as to what libraries can offer them. Along that line, do you think the national commission should encourage strong, active state associations of library trustees, strong, active state associations of librarians in each state? Do you think we should encourage that type of organization in each state?

Ms. MYER: And do not omit, Mr. Casey, friends of libraries.

Mr. CASEY: All right.

Ms. MYER: I think there has to be a terrific public relations program which hopefully those who fund us will not look upon as decoration but as a necessity. We need to get home to the average citizen and the total citizenry what libraries have to offer, whether they don't know because they are apathetic or shy or whatever; but we have got to sell our goods and be salesmen, and it can come from both librarians and trustees.

Mr. CASEY: In other words, to implement your suggestion --

Ms. MYER: Use every legitimate means, yes.

Mr. CASEY: (-- organization of trustees and librarians and friends will be a way to go about doing this, to attract that?

Ms. MYER: I am a very strong believer in using non-librarians. Naturally we are going to proclaim, but I think it especially effective when it comes from the man in the street -- and I do wish the libraries would go after the man in the street and the children and all potential users.

Chairman BURKHARDT: I imagine you would be a strong supporter of Senator Pell's resolution that there be a White House conference on libraries in 1976?

Ms. MYER: I certainly am, and I hope it moves along in the halls of Congress. I think that that could be a very significant thing, and we would hope by then to have even more proof of library progress.

Mr. LORENZ: Could you comment on the present degree of cooperation among the state library agencies in New England in terms of region-wide planning and

cooperation?

Ms. MYER: I think the interstate library compact is a good example where the six-state library agencies did sign a document which permitted, for example, the New England Document Conservation Center that has an enormous role to play in the future. There are other ways that I think that our six states are beginning to cooperate. We certainly have our New England Library Association, the New England Library Board, and NELINET. Going back to the Document Conservation Center, and that was a long time coming, it is an example of where all types of libraries will benefit. Certainly on Saturday, when our department in Rhode Island put on a very significant workshop with Captain George M. Cunha, the director of the Center, as chief speaker, we had all kinds of people there; not just librarians, but town clerks, people entrusted with records, because it was a day's workshop taking up not only the actual techniques but management and so forth and emphasizing that preventive measures are fully as important as the restoration aspect.

In Rhode Island we think of all types of libraries. In 1967 a state law was passed right on the heels of the 1966 amendments of the LSCA, which opened the door to interlibrary cooperation, state institutional services, library services to the blind and physically handicapped; and in 1967 our state law set up five inter-related library systems with a library designated in each of the systems to correlate and give leadership.

The state agency gives grants, a combination of federal and state money, and in each system there is this correlation of all types of libraries. There are teletype installations. Our department pays for the machine cost. In each of the systems, there is a vehicle, so there is better communication of all types.

Chairman BURKHARDT: Well, thank you, Ms. Myer. We are running a little behind and I see we are going to have a lot of people from Rhode Island testi-

fyng during the public segment.

Ms. MYER: That is making up for our size.

JAMES H. LAUBACH Jr.
Brattleboro, Vermont

WRITTEN TESTIMONY

This is forwarded in response to your invitation of July 10, 1973, to submit testimony prior to the October 3 regional hearing in Boston. It carries my apology for tardiness, and hope that the comments may be helpful.

These remarks represent only my own personal viewpoint. They come from one who is, by profession, a public accountant, and has been involved and active in public library trusteeship at the local, state, and regional level.

My experiences have not touched on the subjects contained in your Committee Questions, and I am therefore unable to respond directly. I would, however, like to comment on item #4, page 2, of your letter -- Means and Method of Providing Service in Sparsely Populated Areas. Within the last two years Vermont has instituted a books-by-mail service, gradually expanding it to cover the entire state. Some librarians have seen this as threatening their position, and have reacted with something less than whole-hearted enthusiasm. However, it has provided service to those who were unable or unwilling to use their local library, has done so at costs which compare favorably with conventional service, and has therefore been welcomed enthusiastically by many residents. A recent study of state library services in New Hampshire recommended the inauguration of a similar service, and it now appears possible that a trial will be made in the most sparsely populated area of the state.

It seems to me that this is an important adjunct to conventional library service, and should be supported if possible. I have no particular suggestion for national support, other than maintenance of present special mailing rates for library materials.

I would like to comment on three other areas of concern -- public library trusteeship, inter-library cooperation, and funding patterns.

Trusteeship. From an admittedly prejudiced viewpoint, I urge the continuation and strengthening of lay control of public libraries through policy-making (not advisory) boards of trustees. The responsibilities and functions of trustees are too well-known to require elaboration here. I would rather like to point out that the alternative seems to me to vest the responsibility for library services in the Town Hall, where they necessarily have a low priority and are a step further removed from the residents of the community, or at the State Capitol, where they are still further removed from the community residents, their needs and desires. While many boards and many librarians fail to develop the full potential of the other party, certainly a

proper cooperative effort on the part of lay persons and professional librarians results in the best service to the community.

Inter-library Cooperation. Considerable testimony has already been taken on this subject, but it appears to me that it has been primarily at the level of the larger centers, systems, and academic institutions. I would point out that the community that has a public library and a school library has an opportunity for inter-library cooperation. I do not agree with the observation that such cooperation must be coordinated on a national level.

As taxpayers, we see our school, our public, and our academic libraries, each having its own real estate, its own collections, and its own staff. We realize that each has its own requirements and its own "public" to serve, but we question whether the best use is being made of these resources. In particular, many feel that they are not being shared so as to provide the maximum service to all, with the least practical duplication, and hence at the least total cost. Many are hopeful that this hackneyed conversation-piece is a subject whose time has come for action -- certainly at the local level, probably at the state level, and possibly at the federal level. There are examples of cooperation, coordination, and even integration being successfully pursued. Some have been stimulated by federal grants. I would urge the continuation of such grants (either direct or through the state library) not only for innovative, demonstration projects, but also as seed money to enable a community to work out its own "best method" of sharing.

Funding. As do most people, I bewail the termination of federal funds previously provided for programs in which I have a particular interest -- and dutifully respond to the appeal to "write your Congressman." At the same time, I subscribe (and am finding a surprising amount of support) to the basic philosophy that the federal government should undertake those projects that the states cannot, and those only, and that the states should undertake only those projects that the local communities cannot. I am not in favor of sending tax dollars to Washington, having some of them remain there for administration and control, and having the diminished balance returned to my state for state or local services. The same applies to taxes paid to the state capitol.

Public libraries are primarily local institutions, and should be funded locally, with the state library, funded by state resources, responsible for back-up, or cooperative, or regional, services. I believe that federal funds should not be provided on a continuing basis for the maintenance of either state or local library services. I believe that they are appropriate for innovative programs on a demonstration basis, for seed money, or, of course, for supporting a national network or other project national in scope.

While it may be contradictory to the above, I do recognize the income tax -- particularly at the national level -- as the most powerful and effective taxing medium. I support revenue sharing as a means of distributing funds to states and communities, for use as they decide. Testimony previously taken spells out the difficulties of having such funds applied to library services. But some communities have applied revenue-sharing funds to library services. It is up to librarians and trustees to prove their library needs, in competition with the many other community needs. Where some have succeeded, others can too.

Chairman BURKHARDT: Mr. Laubach, I believe you are a library trustee. Is that correct?

Mr. LAUBACH: I am an ex-trustee, yes, sir.

Chairman BURKHARDT: An ex-trustee, but you are talking from the point of view of a trustee.

Mr. LAUBACH: Yes, sir.

Chairman BURKHARDT: Please, if you have any remarks to expand on what you have sent us already, or if you want to go immediately into the questions, it is up to you.

Mr. LAUBACH: I would make my only remark: That I feel very much what Daniel must have felt way back when, because I believe the reason that I am here is because I suggested that I was simply mild about federal aid to community and state libraries.

Chairman BURKHARDT: Right. So now, Mr. Lerner, do you have a question?

Mr. LERNER: Yes. Mr. Laubach, you say in the last part of your paper that it is up to the librarian and trustees to prove the library needs in competition with other community needs.

Mr. LAUBACH: Yes, sir.

Mr. LERNER: This is getting into the political arena and using the clout that libraries should have. You say where some have succeeded, others can, too. Well, tell us where some have succeeded and how.

Mr. LAUBACH: As far as a community public library goes, I would say primarily through their Board of Trustees, representative people in the community, usually holding responsible positions in the community, they are effective in two ways: One, through talking with their associates and other residents; and secondly, working through the town government in representing the library interests in the budget-making and the fund authorization process. To some extent, but in my own experience very much more limited, the

same thing applies in state funding, but in this case it is at least my own observation that it is primarily the state library personnel who represent the budget needs rather than having considerable public support either from community libraries or from residents throughout the state.

Mr. LERNER: Well, how do they do it? Do they threaten to picket the Mayor's house, do they close the library three days a week? What are the techniques that can be used to really get local personnel, local political personnel, to care about libraries?

Mr. LAUBACH: Publicity, I believe, is the most effective one. I know of one community in which there are probably seven or eight thousand people, a small community, where a week doesn't go by but that there is a piece in the local paper concerning library activities such as new acquisitions, gifts, programs:

Publicity is perhaps the key word. Perhaps this is what you are searching for. Also a continuous year-round effort not just at budget time but something going on 365 days of the year.

Chairman BURKHARDT: How is revenue-sharing working out in Vermont? Is it producing the replacement of funds or --

Mr. LAUBACH: I can't tell you of Vermont. I am a little more familiar with New Hampshire. In this case I know that a couple of communities have been successful in obtaining an allocation of revenue-sharing.

Of course, the overall view is that libraries don't stack up very well when it comes to trying to obtain a portion of these allocated funds, but again it comes back to the publicity, the awareness, making a real effort to go after them rather than throwing up your hands and saying, "Well, highways are first and then we have schools and, you know, there is a sewer problem in town, so let's not talk too loud about our libraries." There has been some success.

I would really question whether community libraries have individually been injured very much through the termination of federal funds. They have been hurt through reduction in state library services and in many cases state library services to communities, but in the upper New England states I haven't observed any noticeable effect on local services rendered by the community library.

Mr. LORENZ: How does the books-by-mail service work? Obviously the larger libraries would lend more than they would borrow, I suppose. Are they reimbursed in any way for what they lend and for the cost of such lending?

Mr. LAUBACH: The books-by-mail, as I have seen it, has been operated by the state library, not by community libraries. In Vermont, a publication tabloid and format have been distributed and the resident receiving it can then order books directly from the state library collection, so that the larger -- after all, in Vermont the largest community is 40,000. They are not effective.

Chairman BURKHARDT: You can choose books only from the list? You can't demand a book that isn't on the list?

Mr. LAUBACH: That's correct - not in this particular program.

One thing that I would like to emphasize is that this books-by-mail service has been reaching people who have not been using the public library -- "I cannot get there. I do not drive. I am homebound. My library is only open Tuesday and Thursday afternoon" -- this sort of thing, and it has not resulted in being a competitive service at all versus the community library. It has been entirely supplementary.

Mr. LORENZ: Is it a free service?

Mr. LAUBACH: Yes, and at the moment the state is paying postage both ways.

Mr. AINES: As a man of figures, since I see you are an accountant,

would you be willing to make a comment on how well off or how badly off are the people in Vermont in terms of library services?

Mr. LAUBACH: Some are quite badly off. Small communities, who tend to think of themselves as poor, perhaps support their community library to the tune of 50 cents per capita per year, a dollar per capita per year; and consequently they have what I am sure everyone in this room would consider very inadequate service -- small collections, open very limited hours or perhaps unattractive and crowded facilities. So service in many communities is not good.

The state does supplement this. It has provided bookmobile service which has now been discontinued, but the book collections are still available through regional offices of the state, from regional collections, and the librarians may make their selections and then have them delivered to their library.

The library that does have an alert librarian but very limited funds will borrow several hundred books perhaps quarterly from the state collection, so this service is available, but it is certainly nowhere near what the people living in metropolitan areas experience for their service.

Another factor that I think is important: unfortunately, it is not known as universally as it should be, but a library loan can be obtained through the local librarian, so that whatever is available in the state or perhaps in an adjacent state is available, but that doesn't say that it gets used.

Mr. VELDE: Jim, I think that some of your ideas are pleasant to reflect on, with people taking care of themselves, but we find very, very few cases where revenue-sharing really does well; even where people try, it does not do well. I just hope that your experience in Vermont is better with revenue-sharing, but it is a pleasant concept.

Mr. LAUBACH: Well, in my view, Bud, if you do not get it through

revenue-sharing, get it out of the town. If the community library is part of the town operation, then it is part of the town budget and the trustees and the librarians need to stress their own importance and their own needs. I don't think we necessarily need to look for Washington either for categorical grants or for revenue-sharing.

Mr. VELDE: But for libraries it is difficult to prove a thing like the cost benefit of a library.

Mr. LAUBACH: It is. Again, it is a year-round job of publicity, if you can do it at all.

Ms. WU: I would like to know whether your interlibrary loan service has been used very extensively or not.

Mr. LAUBACH: I just can't answer that as a local ex-trustee because I am not exposed to the figures. I do know that it is available and I do know that it does get used; and if a person is aware of it, they can ask for it. It can be effective if a librarian is alert and is trying to be helpful, as many of course are, by saying, "Well, we don't have it so we will put it through a library loan and see if we can get it elsewhere."

May I make one remark further concerning the draft that was distributed, and that has to do with the national library network. Having gone through it and then given it a few thoughts, I come to Mr. Velde's comment concerning cost benefits, and I think there is a real problem here. I would have to raise these questions to the Commission: If there was such a network, who would use it? Who is the public? What people or what kinds of people are intended to be benefitted by this? Who needs it?

Secondly, what do they need or what kind of information? Where are they?

I just have the feeling that we do have interlibrary loan, we do have community collections, we do have backup state libraries and academic libraries, and I am wondering about a network which obviously would be instituted

at great expense; I wonder if there is a real overwhelming need for the kind of information that the network can make available all over the country.

One of the comments that my letter had to do with was interlibrary cooperation, and I am all for that and I am all for sharing facilities. Personally I would rather see it at the local level, where we have a school library that is closed so many months a year and it closes at whatever time it is in the afternoon and it has racks, books, magazines and a library and lighted space; and across the street we have a public library with the same things. Maybe a couple of blocks away we have an academic library with the same things but different collections, to be sure, serving different publics, having different purposes.

But I raise the question: Are we taxpayers getting the best that we can out of these various staffs and facilities and collections? I think there is a great deal that needs to be done at the local level, and here the problem is right before our very eyes.

PUBLIC TESTIMONY

Chairman BURKHARDT: Now we come to the portion of the hearings that we devote to public testimony. We have followed the practice in the past in these regional hearings of allowing an hour and a half to two hours at lunchtime for people who, for one reason or another, have not sent in testimony but who would like to come and make some kind of a statement to the Commission.

I now have a list of eleven people who have signed up; if you divide the time available among those people, it means ten minutes each, and we are already 20 minutes behind time. So, when I call on you, please bear in mind that you must be succinct in your statements if we are to be fair to the

other people who are waiting. I also want the Commission members to make their questions short and to the point.

Now, this also means that the Commission does not break for lunch. You will see one or two of us peel off from time to time, and that means we are going into the next room to have a sandwich or something, but most of us will be around to hear what is being said, and I would urge some of the Commission members -- I don't know how you want to decide when to go -- just disappear when you are hungry but don't leave this table empty.

CARROLL G. BOWEN
Research Associate, Center for Advanced Engineering Study
Massachusetts Institute of Technology
Cambridge, Massachusetts

Chairman BURKHARDT: May I now call on Mr. Bowen of MIT, Mr. Carroll Bowen.

Mr. BOWEN: Ten minutes?

Chairman BURKHARDT: Yes, and shorter if you want us to ask you any questions.

Mr. BOWEN: You won't have the basis for asking the questions unless I read a little, so let me burden you.

I am sorry I am not prepared with copies for you to follow as I read the three parts of my paper. One is the telecommunications environment generally, as it will affect library services in the future; then a rather specific statement of that environment, going into transmission, long-haul/short-haul issues, local switching issues; and finally a rhetorical close called Impact on Libraries of the Telecommunication Environment particularly on public libraries. I will begin with an overview of what I see as the telecommunications environment for say a decade hence.

We assume the following structure for the telecommunication service in-

dustry about a decade or so hence. The assumption is based on a rather straight-forward extrapolation from the capabilities of the existing communication plant and current technology, and some simple premises about market demand. It also assumes the continuation of the existing legal regulatory framework, which is a highly suppositional presumption.

First on local service: Local service will consist essentially of two independent transmission systems, each providing a basic service that will yield a substantial revenue base of its own.

First, a telephone network using "twisted pair" wire distribution intended primarily for voice communication but also capable of delivering other, more demanding, communication services such as digital data and videophone. The head end is designed to provide very rapid and flexible nationwide interconnections. It will have essentially a 100 percent market penetration, including rural areas, for telephone service but only very limited penetration of videophone service. With appropriate terminal equipment, the network can be readily designed to provide additional services such as automatic burglar and fire alarms, transmitting and recording instrument readings (utility meters, EKG's, et cetera). It is worth noting that some fields of medicine such as pediatrics already rely heavily on the telephone system for delivery of health care.

Second, there will be a wideband or video cable distribution system with capability for some upstream communication flow, either voice or small data rate messages, with perhaps some limited number of two-way channels available for switched local service. Penetration will be high. We estimate on the order of forty-five to seventy percent in densely populated areas, but only scattered service will be available to exurban and rural areas unless subsidized by the federal government.

On the local level, TV distribution is not a natural outgrowth of the

kind of service the telephone company now provides, nor can it utilize the telephone plant effectively except for rights-of-way and telephone poles; so continued growth of an independent cable system can be expected. I will have a caveat about that later. The FCC policy, agreed to by the telephone company, is that the telephone company will not enter the CATV market.

Under the second section, National Long-Haul Services, we predict it will consist primarily of the long-lines telephone plant utilizing micro-waves, cable and satellite transmission systems with high capacity wave-guides being introduced in certain high-traffic routes as, for example, between New York and Philadelphia.

But in addition to the telephone plant carrying the bulk of the nation's traffic, there would be some special service networks for such purposes as television distribution, data service, other non-voice communications and possibly some electronic delivery of mail. I am talking about long-haul transmission now.

Chairman BURKHARDT: Mr. Bowen, could you summarize these because you are never going to get through in the time available if you read the whole thing.

Mr. BOWEN: I have used four minutes.

Chairman BURKHARDT: You have sixteen pages of text.

Mr. BOWEN: I am planning to skip.

Chairman BURKHARDT: Good.

Mr. BOWEN: The basic policy questions that arise in local communication relate to the issue of which of the two local distribution systems should handle such new communications services as can be developed for education, home shopping, health care, payments, et cetera when there are no compelling technical or economic reasons to utilize one or the other of the local distribution systems. One approach would be to let the free market struggle

with alternative systems for a while, with the hope that an optimal solution would emerge; but the high capital cost and short-term inefficiency of this approach might be compensated for by the lower costs and higher efficiency realized in the long term.

On the national level, the long-haul telephone plant can very naturally expand its facilities to handle virtually all communication needs. The reasons for opening the market to the new long-haul carriers other than AT&T are, it seems to us, self-evident.

Number one, some services can be provided at lower prices since the rate structure of the telephone company is such that some customers, particularly those in remote areas and those using a small amount of capacity, are subsidized and others overcharged. Consequently, the overcharged group provides a ready market for specialized new telecommunication carriers.

Second, the existence, or even the threat of competition might hasten the introduction of new telecommunication services. Regulatory processes, internal priorities and internal bureaucratic considerations often slow down the telephone company's initiatives.

And third, there is considerable apprehension on the part of the government and the industry about a single national communication carrier with monopoly power despite the presumed efficiency of scale and reliability of service that a single large carrier might provide.

I will skip now from the more detailed examination of the issues raised generally in that front section of my paper to some concerns I have about the impact of the telecommunications environment on future library development.

The enriched national and international ability to communicate, person to person, place to place, can impact the total library community, but alas, the precedents are poor. Libraries, like other educational or service bureaucracies are conservative, highly fragmented, and unlike education or health,

hold insufficient critical mass in the local or national decision-making.

What stirs the imagination is the use that some libraries could make of telecommunications if ..., and my concluding remarks will be addressed to some of those "ifs." Let me preface these, however, by focusing my concern on public libraries because in any formulation of library futures, one sees library networks, community information centers, and research libraries as major modes of development. The research libraries, be they national, those of major cities, or universities of scale, will respond to their telecommunications opportunities as natural response to their environment. Interconnection will add range to their present text and visual reference functions, and local distribution loops, by more imaginative use of voice-grade transmission or large bandwidth capacity, will add flexibility to their delivery. So I would exclude from my remarks specific concerns for research libraries or the community information centers. It is the public library, operating in two distinct spheres, in the middle-sized cities and in rural America, whose use of telecommunications engages my interest.

Urban America as a conception lacks specificity as a definition, but there are fewer than 800 cities in America with population of over 30,000, and once the top hundred are skimmed, one finds a city in character if not by definition more akin to the village than the metropolis. This middle-sized American city is rich in pride and proud of its institutions, its growth and its role and sense of place in its region. Yet it is removed geographically from the mega-cities, major centers of culture, sources of entertainment, major information repositories. The public library in such a mid-sized American city has a first-class opportunity for use of telecommunications; and I summarize in my text information which the Commission probably is as well aware of as we are at MIT of some of the experiments that have been going on in middle-sized cities; I think these illustrations, the Casper, ...

Wyoming, the Bakersfield, California examples, are really designed to illustrate the point that it is in this size area that telecommunications can serve.

I want to concentrate my remaining time and remarks on rural America because it seems to me the libraries serving rural America, particularly the Eastern United States and most particularly rural New England, derive their continued existence from dogged tradition and unmitigated personal sacrifice by the town librarian. For these institutions in these towns, or townships as they would be called west of the Alleghenies, the future is as bleak as the present, and both less promising than the past.

Rural America, you know, holds a quarter of our citizenry, and if towns under 10,000 are added, nearly half our population is accounted for. Life in rural America has been greatly improved thanks to rural electrification, subsequently extended to rural telephony. But this improvement comes at a high cost. An examination of telephone tariff structures indicates the very high price of living in rural America, running half-again as much for basic service plus local tolls as do tariffs for adjacent metropolitan regions. Rural America by definition is sparsely populated, raising the cost of service delivery; but it is also very poor, proportionate to metropolitan America, and thus least able to pay for its service deliveries.

Rural youth are one year behind urban youth in their education, given the same grade level. But this is symptom, not cause.

It strikes me that the town library in rural America is probably in greater need of telecommunications services than any of the other library sectors. Their resources are pathetically few. They have an historic tradition of service in a delimited range, and a capacity to survive while starving for human and material resources.

The specific things, it seems to me, that telecommunications can provide

for a rural library are these: First, it can help achieve what politically has been impossible to gain; namely, aggregation to minimum critical mass of resources in order to serve effectively. A town library dies even harder than a scholarly journal, and its trustees are always more ready to fight than merge. Yet common sense, not systems analysis, dictates that the service area must be enlarged in order that requisite tools be gained for local use, be those tools reference collections, visual programming or adult basic education.

Second, the rural library in order to be effective, must be able to deliver its services door to door. The transportation resources that urban areas and metropolitan areas provide simply aren't there otherwise. But for pre-schoolers, for out-of-school young adults, for employed adults, most of whom are reachable by television, either broadcast or cable, the post and telephone are useful but partial solutions.

Third, the rural library desperately needs a Washington-based advocate and it has never known one. The short-lived romance between libraries and the educational lobby led to a marriage of convenience between schools and educationally related libraries, but left the poor relations, rural public libraries, without a voice or home in federal budgeting priorities. This Commission is the logical, and perhaps the only, vehicle for such advocacy. It may be within its charter to avoid responsible advocacy for its constituents, but it will morally abort its mission as it does so. And the most specific cause in which they need support is the cause of additional communication services.

Let me offer two comments in closing. Left to the growth of the market, our economists estimate that forty percent of rural America would still be without electricity if R.E.A. hadn't come along offering marginal federal intervention through the economies of scale that produced lower construction

costs per mile of electrification, and loaned money at preferred rates to utilities and rural electric cooperatives, to manage the increased distribution. Similarly, it is hard to remember that as short a time back as the end of World War II, less than half of America had telephones. Now, thanks in large part to the same federal intervention, the telephone is almost as ubiquitous as power and light.

Broadband communications services to rural America can only be enlarged by federal intervention. Rural electrification could and should be extended, for example, to cable television, as it was to telephony. And rural service institutions, particularly the rural library, need broadband communication resources in order to survive and serve.

Chairman BURKHARDT: Thank you. We will see to it that your paper is duplicated and passed around to the other members of the Commission. We would also be very interested in your reaction to this draft of a national program which I take it you have not yet seen!

Mr. BOWEN: I haven't, but my remarks by agreement with Chuck were to be addressed strictly to the telecommunications environment.

Chairman BURKHARDT: Please do write to us about how you respond to the national program, too.

Mr. LERNER: One quick one. You say you look forward to a forty to seventy percent penetration of market in broadband communication. What is your time frame on that?

Mr. BOWEN: I am sorry --

Mr. LERNER: The cable industry today is a total disaster; so what is your time frame on that?

Mr. BOWEN: Will you qualify your total disaster if I qualify my thirty to forty-five? My reference to thirty to forty-five percent was, I think, specific to one level of service; not to --

Mr. LERNER: Forty to seventy.

Mr. BOWEN: Forty-five to seventy in densely populated areas; not for rural America.

Mr. LERNER: What is your time frame?

Mr. BOWEN: A decade.

Mr. AINES: Your telephone number, is that in your document?

Mr. BOWEN: Chuck has it.

Ms. MOORE: Of all places to be concerned about rural libraries, I am deeply impressed that MIT should be so concerned, and I want to compliment the witness. I am very much impressed with your testimony.

Mr. BOWEN: I am also a citizen of the State of Vermont, and have just taken the free man's oath, so I represent two minority constituencies.

JEWEL DRICKAMER
Deputy Director, Department of State Library Services
State of Rhode Island
Providence, Rhode Island

Chairman BURKHARDT: Now I would like to call on Mr. Jewel Drickamer of the Rhode Island Department of State Library Services. I notice that you and the next four speakers all come from the same department.

Ms. DRICKAMER: I thought they had successfully divided themselves up for the sake of everybody listening, but some of them may or may not proceed to speak. I will be brief. I am sure you will be glad for that.

Chairman BURKHARDT: You understand our problem.

Ms. DRICKAMER: Yes.

I have had the opportunity to see two drafts of your present paper, and there is a great deal of good thinking in these drafts. National planning is essential, and Rhode Island did press for it. A national network is of importance to at least a good segment of our population.

In my opinion, however, the document is very narrow in scope and your articulation of funding is also very narrow. It leaves out of the national posture rather effectively services to children, young people, elderly, minorities, all the goals we have been developing toward people-oriented programs, and it is my opinion that states and localities cannot succeed in developing and continuing to develop these services without federal funds and federal impact. I feel that there should be national goals that encompass both those in your paper and other user-oriented goals.

To put it bluntly in money terms, if there were \$100 million federal for libraries, I should like to see twenty million annually for some sort of super-network which perhaps really is needed and eighty million annually to go intrastate for at least a decade to continue to raise the level and quality of library services to citizens right where they are, in ways that we are beginning to learn to be effective in.

I realize that you may feel that the services to these groups are implied in your document by "letting the states do it" or even the locality. I think the realities are in my mind that twenty-five percent of our population may never use libraries; that twenty-five percent may already use libraries; that there are fifty percent who could use libraries to their profit but somehow or other we are not reaching them or able to serve them maximally. This is for a variety of reasons but chiefly because the good, sound middle or upper middle class that began libraries and backed them dominated them for a long time.

I think we have made a start in another direction. I should hate to see this start not have a continual federal posture to back it and the funds to continue it. In my opinion until we reach the hard-hat fathers and the welfare mothers and the radio addict kids and all the others who need to read and gain information in order to have a full and informed life, we can end up

creating networks or a ~~super~~ network that talk to themselves or to itself and to a very small audience; so I make this very sincere plea that there be consideration in this way.

RICHARD WATERS
 Department of State Library Services
 State of Rhode Island
 Providence, Rhode Island

Mr. WATERS: Thank you, Mr. Chairman. I didn't know Rhode Island was going to dominate the open session.

Chairman BURKHARDT: It speaks well for your initiative, I must say.

Mr. WATERS: I would like to make two brief points. One is that I am for categorical grants. It is through categorical grants that we have been able to put some pressure on the local communities to live up to national priorities and to standards.

And a new federalism of revenue-sharing -- I have been keeping a close watch on this, and Mr. Stevens at Wentworth last week said that the Treasury Department seems to think that five percent of revenue-sharing money is going for public libraries. We did a very close study in Rhode Island, and out of \$15 million to the communities in Rhode Island in 1972, something like .00259 percent was given to public libraries.

Chairman BURKHARDT: Who gave the five percent figure?

Mr. WATERS: Mr. Stevens mentioned it.

Chairman BURKHARDT: Our Mr. Stevens?

Mr. WATERS: Yes.

Chairman BURKHARDT: We will have to ask him where he got it.

Mr. WATERS: He said he got it from the Treasury Department; and from the 1973 amount of revenue-sharing, which was approximately \$15 million to the local communities, .00253 percent went to public libraries in Rhode Island. I have been watching the revenue-sharing and I think the local offi-

cials have been burned. They thought there were going to be categorical grants along with revenue-sharing, and with the sudden demise of the funds for categorical grants, they have been spending the money on one-shot deals where they are buying fire engines and nothing is going for programs.

Of the money in Rhode Island that went for revenue-sharing, less than \$5,000 is for programs. It has gone for roof repairs, new furnaces, boilers and that sort of thing.

Chairman BURKHARDT: You have got pretty solid statistics, I gather. You are really keeping track of that?

Mr. WATERS: Yes; and secondly, the National Commission, in all its papers, mentioned the fact there should be a national structure, and various people have mentioned the Library of Congress as the focal point. I say there is already an existing structure. Mr. Brahm pointed out that it has fluctuated over the years with various people coming and going, but there is a structure there within the Department of HEW that perhaps needs to be boosted. We have the structure. We have people in Washington who are concerned with library programs and who have had experience. We have regional offices, and perhaps at this point of our national structure this is the place to start. There is something already in existence.

Mr. CASEY: Will you please tell me why haven't trustees and librarians been more convincing, more effective in getting revenue-sharing funds? This is a serious situation because libraries are listed among the categories that can be used in revenue-sharing along with public safety and so forth. Why have libraries been so unsuccessful in your experience?

Mr. WATERS: We had a meeting. I believe it was mentioned earlier by Mrs. Blecharczyk. Our department has had a state-wide meeting on revenue-sharing with public officials, with state officials, and librarians and trustees. Most of the public officials, town managers and city managers,

said that librarians and the public who use the library don't scream.

I will quote one mayor whose community gets almost \$3 million. He says that if fifteen firemen come in and scream for a new fire truck, they will get a new fire truck, but I think that traditionally librarians have been quiet, the same as the trustees. They have fought in town budgets in that area, but they will not go out, and they don't see that as the role of a librarian. I speak as one having had experience of going out in the public and being cautioned by my trustees not to. But I think also the officials have been burned. This is a chance to get equipment and other things for the community without having to raise taxes, and if they can update all their fire equipment and all their police equipment, they think this is more vital than the library, and most of the people will agree with them.

Mr. CASEY: You are saying the trustees and librarians have to establish a higher priority in their community for library service?

Mr. WATERS: Not so much a priority. I think in many cases where you have fifteen policemen coming in, they are going to get the publicity because people will be concerned about public safety. I think if you could get 200 people coming in supporting the library for revenue-sharing, they will get as much as anybody else will.

Chairman BURKHARDT: Thank you. The Commission is really anxious to get a complete picture of how this whole revenue-sharing is working out as far as libraries are concerned, and we are finding it rather difficult because the returns come in in very spotty ways, but we are making every effort to get the picture as it is working out.

Mr. WATERS: I can send our questionnaire and how we outlined it and the result we are getting. In order to prepare for this, I had to do some telephoning to about ten libraries who hadn't responded to the questionnaire, but by telephone I got the information.

Ms. MOORE: I would caution even the members of the audience to carefully look behind the statistics. In my own state of Arkansas everyone knew the state revenue-sharing, the amount that went to the state, went to highways, all of it. But when the reporting system came around, it was said that the revenue-sharing had been put in with the state monies and, therefore, it could not be said for sure exactly what it was spent for. So the legislative council which did the reporting indicated that \$2 million had gone for libraries because there had been a \$2 million appropriation to improve the collections in the university library. It left the impression that we profited greatly from revenue-sharing in Arkansas. That is, the records of the Treasury Department will show that, and, as I said at the time, it was inaccurate and, if I had been employed by the state, I would have said dishonest reporting.

(Laughter.)

Mr. WATERS: I can't answer for the state's share here because that has gone into the general fund, but as for libraries, one of the questions we asked them was how did they have to keep track of revenue-sharing funds and how did their town do it. Most of the communities have set up a special budget. You have your regular budget and then each department applies for revenue-sharing and they have to keep separate reports; so, on the state level I wouldn't know, but on the community level we have a fairly accurate picture.

BARBARA L. WILSON
Chief, Division of Special Library Services
Department of State Library Services
State of Rhode Island
Providence, Rhode Island

Ms. WILSON: Thank you, Mr. Chairman, for this opportunity. This seems to be Rhode Island dominating the lunch hour. However, I did have the oppor-

tunity to present written testimony, so I will not repeat what I have put in there, but I did want to emphasize a couple of additional thoughts and concerns that I have.

I am concerned mainly with readers who need special library services. They would be the blind, the handicapped and the institutionalized; and also I coordinate media services for the Department. I suppose you must realize what impact the federal funds have had on library programs for this special clientele.

In Rhode Island we did not have a regional library until LSCA came along when we had 200 readers transferred from Perkins. This number has now grown to over 2,000 readers served by our regional library in Rhode Island.

We do receive materials from the Library of Congress and we also develop peripheral materials ourselves to serve special needs, such as some of the language needs that we have in Rhode Island. In addition, we have ten state institutions in Rhode Island and these had no library services when the LSCA came in. Now five of them have full-time librarians who are employed by the institutions. They were originally started under grants from our agency and have shown their value through services in institutions to the point where now the institutions fund them. Five other state institutions either get bookmobile service through us or they have part-time librarians who are working and hoping that they will eventually also be picked up. But without federal money, we would never have been able to do this type of library service, and it is most essential. While you need this overall network, you also must not cut back on this kind of supportive funding for special services.

I am also concerned, as far as the media goes, with incompatibility. It is really appalling the amount, the kinds, the types of equipment, both hardware and software manufactured, many of which are not interchangeable or compatible. If you go from one meeting to another, you have to supply your own

slide projector because your carousel might not fit on someone else's projector. The films are not all interchangeable between the eight, the super-eight, the 16 millimeter. With cassettes, where the speed and size now are pretty much compatible, there are problems with impulses on certain cassettes and things like that.

Video tape is another whole area that needs to be standardized. I think it is going in that direction, but your agency as a body could encourage the standardization and the development of media in a more sensible manner so that people aren't spending thousands and thousands of dollars to duplicate and develop materials which are not compatible with one another.

I know this is a problem industry-wise because naturally each company wants to sell its own machine, but still it was possible to standardize other things nationally such as cassette tapes, I think this is where an overall agency can give direction by setting up standards, which would encourage the compatibility of materials for special library services.

Mr. LERNER: Because of a cut in federal funding, have you been forced to drop some programs directly, and if so -- ?

Ms. WILSON: We have been fortunate in Rhode Island that our director has obtained matching state money. For practically all of the federal money we have a matching state component; so, what we have done is go along on a very reduced scale where we have not been able to expand as planned. We have a five-year plan which we are not able to implement completely and we probably won't be able to unless things look brighter for us.

We have not been able to add other institutions or partially state-supported institutions which we had hoped to do, such as halfway houses, drug homes, places like this. In Rhode Island the institutions are reducing in size and their residents are going to homes in the communities. Many are living in special halfway houses and group homes, and these would benefit

greatly by library services. The public libraries are either not geared to serving them or for several reasons just can't take care of the special clientele. We would be doing that if we had more federal funding.

DOROTHY BROWN.
 Department of State Library Services
 State of Rhode Island
 Providence, Rhode Island

Ms. BROWN: I am also from the Rhode Island Department of State Library Services and most of the things that concerned me have already been mentioned.

I would only like to say, as other people have already said, that I also approve of the draft proposal. I think the establishment of a national network is an important thing, but I am also concerned for those library users - present and potential - who really could benefit very little from the network but can benefit from a continuation of the programs which have already been started. Many of these are still in a very, very preliminary stage and may die or not continue if the setup of funding is drastically changed at this point.

Mr. LERNER: Your concern then basically is that funds should not go into the network program that come out of other programs. We should continue to do what we are doing.

Ms. BROWN: Right.

Chairman BURKHARDT: Do you interpret that draft as being an alternative or a substitute for categorical aid? The connection isn't necessarily so, but I see your point just the same. Our motive is to get on with some kind of national plan, and I think insofar as the federal component of that is concerned, we are trying to specify what the state responsibilities are in establishing a federal plan of this sort. I don't think it's necessarily to be interpreted that we, as a commission, in this plan have any other posi-

tion about federal funding.

The amount of federal funding is to be determined by what we discover to be the needs of the country and the mechanisms for providing the funds; so I don't know whether I may be answering a question which you never had.

Ms. BROWN: What I was primarily concerned with after reading the document is that all of the emphasis is on systems, on providing information (which I think is very necessary); but there is no mention of many of the types of library users that I am familiar with and do help to serve, such as children, for example, who would benefit very little from this type of national network. Such information networks would not be used by the elderly who come in to use a library for informational reading, for leisure reading and so forth, or by handicapped persons.

Chairman BURKHARDT: Very good. We will do something about that.

ALBERTO T. PEREIRA,
Supervisor of Young Readers' Services
Department of State Library Services
State of Rhode Island
Providence, Rhode Island

Mr. PEREIRA: Thank you, Mr. Chairman and Commission members, for letting me speak. I have already made a statement to the Commission. What I would like to talk about is my position as supervisor of young reader's services which is in the Department of State Library Services.

My job is contact with people. We provide story hours for children, special programs which are concerned with children, books for children, and special programs featuring speakers for those people who work with children's books. In particular, much of my service in the past five years has taken me into the community where I have discussed with young adults such things as drugs, drug use, drug abuse, and what library services they preferred.

I have tape-recorded young adults and children from 11 to 12 years old

on what they preferred in the library as services for them.

In an excellent program of cooperation between the Department and the principal public library in Providence, we managed a series of programs where in we purchased books for various community organizations such as the Afro-American Center, the Neighborhood Youth Corps, a small community club, and a social club. Books purchased were selected by these people themselves. This program would not have been possible without the federal funding which gave the impetus that we needed.

I think the document is an excellent document, but I think it is guilty of omission, omission of mention of children and of the various minority groups with which I work. And I think a very much-needed content to be added is a parallel development to this document which would include children and the minorities.

BARBARA HOLDEN
New Hampshire State Library Commission
Concord, New Hampshire

Ms. HOLDEN: I apologize for not having submitted testimony in advance. However, I choose to speak at this moment from the point of view of a former library trustee from a small town.

Before I say what I have to say, and I do promise to be brief, I would like to say that, as a member of the state library commission, I obviously do not agree with what Mr. Laubach has had to say about the lack of need for federal funds. As a member and as someone from New Hampshire, I am sorry that no public libraries from our state are represented, but I am delighted to see that we are represented by our academic libraries because this proves what marvelous cooperation we have had from them in building our statewide network.

I do, however, agree with what Mr. Laubach had to say about the import-

ance of establishing coordination, cooperation, and networks at the local level. Mr. Kissner from Fitchburg also made the same point. I feel very strongly about needs at the local level right at this moment because I have been working for the last several months on a study which has been privately funded by the New Hampshire Charitable Fund to determine the degree and kind of cooperation or coordination which is possible in the libraries of a small town of 6,000 in New Hampshire.

I think this is a fairly typical case. We have been working in the state with the cooperation of the State Department of Education and the State Library and of the boards of both agencies on this problem for some time. We have been conducting regional meetings throughout the state, some of which I have attended. These meetings, plus my own experience in working in collaboration with a professional school librarian on this library survey, convince me that at the local level we are not going to make real progress in cooperation and coordination until or unless there are funds to pay someone to really make the in-depth study which is necessary in each specific case. I don't mean that all the answers are different. Each borrows from the other, but they are to a very large extent individual answers, and in small communities I do not think that there is going to be the incentive or the time or the energy to pursue this sort of thing unless the Department of Education and the Division of Library Services get together and make joint grants for studies and pilot projects.

I speak from the point of view of the rural communities rather than the large communities, I realize.

Thank you.

Chairman BURKHARDT: Ms. Holden, would you see to it that our staff has a record of this study that you talked about?

Ms. HOLDEN: Yes, indeed I will. We are in process.

Chairman BURKHARDT: Is that being done under the Library Commission?

Ms. HOLDEN: No, it is not. I should have said that the application for this grant was made by the Board of Trustees of the Richards Library in Newport, New Hampshire, because they could see that ten years from now both the school libraries and the public libraries might well be falling behind in service and in resources unless the taxpayer could be assured that he was getting the greatest possible value for his library dollar.

Chairman BURKHARDT: Is your commission a coordinating body? Is it an advisory body? What is it?

Ms. HOLDEN: Our state library commission is like Ms. Moore's state library commission, I would say. Our state agency is the coordinating agency for all library efforts in the state certainly.

Our Statewide Library Development Program was originally planned for public libraries, but the academic libraries have been pulled in, and we are trying to pull in more and more other types of libraries as time goes on.

ELEANOR C. CAIRNS
 Librarian, Maine Medical Center
 Portland, Maine

Ms. CAIRNS: Mr. Chairman and Commissioners, I think that you might be interested to know of a horse-and-buggy kind of library service that we are giving in Maine. The Maine Medical Center and the Biosciences Library, Jackson Library in Bar Harbor are committed to continuing medical education in the State of Maine. We have no medical school in the state and since the Maine Medical Center has the largest medical library, we are a resource for every physician in the State of Maine. We received seed money from the regional medical program to finance our document delivery, reference services, loan of books and cassettes and so forth, and that has been going on for a period of five years.

In June we came to the end of our funding and wondered what do we do now. Well, as you know, we are Yankees from Maine and so we make do, eat it up, wear it out and so forth. So what we did was to go out and try to raise money from the doctors who are using this service. It didn't seem possible and many people said that it would fail. We haven't admitted to failure yet, and I think we are not going to.

There are sixty hospitals in Maine. We have memberships in our medical library for service for twenty-seven of these hospitals. We have ten that will get their checks to us eventually for service. That leaves a few small hospitals, some 23-bed hospitals, some 30-bed hospitals and so forth. But those of us in the library ask what happens to the patient who is getting care from a doctor who is practicing medicine the way he did forty years ago when he graduated from medical school? We feel that they are as entitled to good medical care as anyone in the state.

Having a committed staff, it is rather easy and extremely rewarding to give service to the doctors in the state. However, on the periphery of this circle of doctors who are supporting the program, we have the paramedical personnel, the nurses, and the technicians of various kinds, and these people are not provided for. It is my great concern that if the country is truly concerned about improved patient care and continuing medical education on every level, that they will know about the things that are happening in our state. And we are just an example.

We are a rural state with hospitals very far apart. We are at the moment talking about consortia, and it is possible that two of our cities may be able to establish a consortium in each city. However, you can't consult with anybody who is 50 to 75 miles away from you. They have to be fairly near, and so this is a very real problem for us: how to get service to the physicians in the outlying areas and, furthermore, to the paramedical personnel.

There is no duplication of service in our state. As I said, we have no medical school and ours is the largest library and we have made this commitment. And so we are thinking in terms of newer kinds of communication.

We have had financed for us by Regional Medical Program the teletype, the TWX, a WATS line and now we have gone into computer service, the MED line. We are part of the national medical library situation, but this hasn't really gone into effect yet; I understand that it will be going into effect in January. In the meantime we have the questions we must answer now, the patients who are ill now, the doctor who needs a review now; and so we hope that eventually we will make this program something more than it is, something in the 20th century; not mailing out documents through the post office, but some kind of photophone service that we can give so that a doctor from the northern reaches of the state won't call in and say, "If you can get this material to me by Wednesday, I'll postpone the operation until Thursday." This really happened. We make use of Greyhound buses - whatever we can - to get the information to him as fast as possible.

We have a very great responsibility here. I think that perhaps there isn't any place in the planning that I have listened to here for helping us, but I think you should be aware that these things are existing in rural areas in particular.

Mr. DUNLAP: How do the physicians and your paramedical personnel in Maine learn about your collections? Does a physician ordinarily subscribe to the Journal of the American Medical Association, find a particular publication he wants to see, or are you able to send them lists of your new acquisitions?

Ms. CAIRNS: We send our list out over the state. Many of the medical meetings are held at our hospital, and doctors come in for grand rounds very often, usually once a week. I have visited probably eighty percent of the

hospitals in Maine. I have talked with administrators about establishing small basic libraries, but it is very difficult to sit opposite a man on a limited budget who is wondering how he is going to repair the ceiling in one wing of the hospital, how he is going to get new equipment for the operating room, and he thinks, my God, she's talking about books. He just can't believe it, it is so unreal to him. However, fifty percent of all the interns at our hospital stay in the state of Maine or return to the state of Maine. They know perfectly well about our hospital and we can almost pinpoint them on the map of Maine where they go because the last thing they ask as they leave the building is, "You will give library service to us now, won't you?" And we say yes.

Now we are on a pay-as-you-go, but we have not as yet refused anybody and I think perhaps we won't refuse service to anyone.

Mr. LERNER: Is there a lesson to be learned from your pattern of operation for other states?

Ms. CAIRNS: Perhaps not. I think that we are starting in a very small way. I think that some day some person will see the possibilities of what could be done with increasing this kind of service, having more trained medical librarians in the state, having a larger central library, having faster communication, having a better computer service. (We are on the MED line which is the medical network for computer service.) I see this as a small beginning of something that will have to grow, and I do feel that people should be aware of small efforts so that they don't die out, so that they are continued and increased.

JOSEPH G. SAKEY
 Director, Cambridge Public Library
 Cambridge, Massachusetts

Mr. SAKEY: Thank you, Mr. Chairman, for giving me this opportunity to

say a few words. We have not responded to a simple fact of life here -- with the exception of the delegation from Rhode Island --: that eighty to ninety percent of the public who live in an urban setting do not use libraries. The Commission's proposal that I looked at this morning does not respond to this striking statistic.

The use of the consumer end user which has been discussed here this morning has been used in an adjectival computer sense. The real meaningful program, a national plan to service the people in the urban settings, has not appeared in what I have heard and what I have read.

There has been no mention of the relevancy of libraries in the urban setting where the middle class are totally absent, where we have the poor and the disadvantaged, where we have the blacks and the Portugese and the Spanish and the Indians and French and others, where we have a large white disadvantaged population. No mention or conversation has been given in a programatic way to identify the needs of these persons living in the city.

For all practical purposes, one can say that books are dead in the urban centers. We have not responded to that reality. The traditon of reading is a dying tradition in the cities, and I am not sure that anyone can dispute that. It is my opinion that the networks, the computer systems, the consoles, the inter-library loans do not -- and I want to emphasize that very strongly -- do not respond to the people's needs in an urban setting.

I submit that any kind of a network of this sort will serve less than one percent of the total American population. It is incumbent upon this Commission to respond to the needs of an urban setting, which is where over two-thirds of the total population lives. Alternatives, and new goals and new objectives for an urban library situation are required, whether it is informational referral systems, cultural centers, a learning situation, a teaching situation, or a telecommunications system. But some new role, a mean-

ingful role that will take the people in an urban setting into mind, is very, very necessary.

Finally, I was disappointed when I heard the rallying cry from librarians all over the country. We had libraries rallying all over the country. We had state agencies screaming and yelling all over the country. We had state associations yelling and crying all over the country because of Mr. Nixon's cut on the LSCA funds. It is disappointing to me to see the Commission silent while all this activity was going on. I think I would be remiss in my responsibilities not to say this in a public setting.

Thank you very much for the opportunity to speak.

Mr. CASEY: I agree with you about the problems of minorities and underprivileged people in our urban areas. Now, why aren't the local governments and the state governments responding to that, while the Commission addresses itself to the delivery of interstate library service?

Mr. SAKEY: I am concerned about this lack of governmental action. I think the real answer is that politicians have to survive and that politicians in this area, to survive the past elections, had to reduce taxes. That is where most of your money went. I think you know there simply is not enough money to go around. All the network business, for example, that has come about has not reached the little library. It has not reached the library like Cambridge. We have implemented a few added services, but those services, again, were geared for the one percent or five percent, and not to the eighty percent, of the urban population.

The categorical grants that we have been getting from the state library commission as a result of the LSCA funds have been really meaningful to us in Cambridge. In an important way they have touched the lives of the Spanish and blacks and other poor minorities in the city. Any new system that is going to be brought in is going to siphon off this kind of money

from any kind of categorical grants that Cambridge or any other small city can have. I am submitting that these categorical grants are real meaningful. Any other system is just giving us more of the same, and more of the same simply isn't working.

The fact is that from Cleveland to Newark to Detroit to Boston and Cambridge -- and all the great urban centers -- ninety percent of the people are asked to support a library system that only ten percent use, and there is very little in those library systems which can attract or bring the ninety percent in. There simply is not that kind of money around to implement new systems. We have got to reallocate our goals or our objectives, and that has to come from a very high level of government.

Ms. WU: Do you mean that the reason why the Cambridge Library systems haven't been able to reach the minorities is totally the lack of funds?

Mr. SAKEY: Whatever effort we have made in Cambridge to reach the minorities has been as a result of the state grants-in-aid. It is very, very difficult to begin to change a middle-class philosophy when you have been catering to and meeting the needs of a middle-class clientele for a number of years. This middle class clientele happens to be the Establishment -- the five or ten percent, the influence-makers -- and they are not going to allow you to begin changing and using current operating resources to meet the needs of the poor. This has to emanate from a national plan, a national goal.

Mr. DUNLAP: You have obviously come to grips with a very difficult problem and you have thought about it. If people are not going to read, what is the future for urban libraries? Would you suggest we turn them into motion picture houses or places where we have more TV sets? What would you envision as the way to go?

Mr. SAKEY: For example, it has been my opinion for a long time -- many people have heard it -- that the best informational specialists we have in

any city in this country are not people who work in libraries. I am not talking about the price of butter or the cost of living index or the gross national product kind of question, but the people who have the information, the people's information, in any city in this country, are your city councilors. That is where people go to get information. That is where they go when they want to know how they can get into a hospital or how they can get into a nursing home. I have a teen-age son. How do I find work for him? He doesn't come to the library for that kind of information. We have seventeen informational centers in the City of Boston. They are called Little City Halls, and that is where the people go for this kind of information. It is people's information that, in my opinion, some of these libraries should give. But the library presently has no such service and I believe that informational referral systems are one way of providing this service. Another way is by using the building that you have and utilizing the available space and library personnel instead of just letting it go to waste. Nobody knows that this opportunity is there. They may know it is there as a building, but they don't use it. It is like in a horse race. People are not aware that there are a hundred people working in the Cambridge Library or 5,000 people working in the Library of Congress or however many in Newark or these other cities, but the minute they begin to find out that five million or ten million dollars are being spent in these libraries and they are not getting a piece of the action, I think that at that point in time we will be in trouble.

Chairman BURKHARDT: Mr. Sakev, thank you very much. I am afraid we must move on now, but I do want to encourage you when you have had a chance to go over that draft program of ours, to write us at some length about your criticisms of it and your suggestions as to how to improve it.

CHARLES W. CROSBY
Chief of Central Public Services
Providence Public Library
Providence, Rhode Island

Mr. CROSBY: Thank you, Mr. Chairman. I am the coordinator of the Providence Public Library, the principal public library in the State of Rhode Island. While I agree with some of Mr. Sakey's remarks, and while for three hours I have heard of our failures with adults, I would like to say that I do feel that in the state of Rhode Island, particularly in the city of Providence, we are succeeding with that segment of our society, the child, who is our one white hope and perhaps our best user to a rather appreciable and satisfactory degree.

This is not my area of concern as a coordinator, but I did want to speak supportively and perhaps even to reiterate my support for something for children's services in the finely-articulated document that comes out of your draft. I am thinking of my own particular library and its work with children in almost over 5,000 separate functions or events with an attendance of better than 72,000, which is not too bad. Now, I am not bragging, nor have we failed in this area; there is much more that we should be doing, but I have been in this work since 1966 and I do not feel that we have failed.

We have, as librarians, a credibility in the social agencies of the state and the city of Providence, and in the circles of social concern we have gained a reputation we did not have at the beginning, because whether or not we have the money, we have at least consistently gone in with some youth, some enthusiasm, and given the thing a real try.

I think that the Commission should be urged to specify and articulate a position for work with children, and that is why I feel we need the continuance of the funding.

Chairman BURKHARDT: How do you feel that Providence and the state li-

brary are dealing with the problem, the problem of the urban non-middle-class that are deprived and so forth?

Mr. CROSBY: I think that we are succeeding in that we go to meetings, we go out to the communities, belong to organizations. We know not just the president of the Human Relations Commission or of the dropout center, the Neighborhood Youth Corps sponsors, but we know people on the staff, people in the office, people at desks. We belong to the Urban League and we go to its meetings. We belong to the Opportunities Industrialization Center and we go to its meetings and we hear some of its graduates and some of its people. We have worked with the Latin-American community center.

Somebody was talking about documentation of minority groups. The Education Department of the State of Rhode Island does not know how many Portuguese or how many Spanish have come into the state in the last two years, not to mention the last month. The truancy department in the school system does not know anything about it either. We are a better check than their own people.

DAVID H. PARTINGTON
Middle Eastern Division, Harvard College Library
Cambridge, Massachusetts

Chairman BURKHARDT: Mr. Partington, will you tell us what is your position with the library?

Mr. PARTINGTON: I am the head of the Middle Eastern Division of the Harvard College Library and also the chairman of the Library Committee of the Middle East Studies Association and chairman of the Middle Eastern Subdivision of the Foreign Acquisitions Subcommittee of the Association of Research Libraries.

When I learned of the existence of this Committee, I noticed that you were concerned with how one might better utilize the services of the Library of Congress, and I wish to speak on one very specific point.

For many years, the Library of Congress has been receiving card copy for books catalogued in various research libraries. That is, when we at Harvard or Michigan or some other library catalog a book, we send one card from the card set to the Library of Congress. The cards for books written in Western languages appear in the National Union Catalog, which has been of inestimable value to libraries and scholars. The story is quite different for books written in the Middle Eastern languages, specifically Arabic and Persian.

For several decades certain research libraries have been sending card copy to the Library of Congress for each book catalogued in a Middle Eastern language. These cards have not been edited and published in either the National Union Catalog or in a separate catalog of Middle Eastern vernaculars. Those cards that we librarians send to LC remain, so far as I know, unsorted in drawers, gathering dust. Thus, the many research libraries and the ever-growing number of Middle Eastern specialists in this country are deprived of the opportunity to take advantage of the cataloguing work of other institutions.

What are the benefits that would accrue from a published catalog of these works? For the scholar at any college it would provide an immediate indication of where to find a book that is not in his own library. For the library it would provide the means to avoid the expenses and frustrations of trying to acquire an out-of-print book from Middle Eastern suppliers. In effect, it would provide for the sharing of resources that already exist. For the librarian, it would provide a bibliographic tool for ascertaining entries, editions, and other technical information.

For several decades, major American research collections have been engaged in a competitive struggle to build their own resources for Middle Eastern research. The time has come, due to the decrease in private and federal funding for area studies, the devaluation of the dollar, the inflation

of book prices abroad, when simple economics is forcing upon us the necessity to cooperate. A very important step in the right direction would be to assure the publication of a union catalog of Middle Eastern vernaculars by the Library of Congress.

Chairman BURKHARDT: John, do you have any words of solace for Mr. Partington?

Mr. LORENZ: I will certainly take the message back to the Library of Congress, but I would be interested in knowing now --

Mr. PARTINGTON: They have the message already.

Mr. LORENZ: What have they said to you in response?

Mr. PARTINGTON: Year after year requests have gone in, I am told, from *Orientalia* for different positions to sort out the cards, but there is always some priority.

Mr. AINES: Just one brief comment. If you could find one way to yoke the collections with oil, perhaps you will have some success.

Mr. PARTINGTON: We have our hopes.

THE REV. HAL I. MEYERS
Western Massachusetts Regional Library Center
Pittsfield, Massachusetts

Mr. MEYERS: Mr. Chairman, members of the Commission, I have worked with the New Jersey Department of Education. Since being transferred to Western Massachusetts, to Lenox, I have been involved with the Western Massachusetts Regional Library Center in Pittsfield. I am here to make a plea for a move away from a multiplicity of fixed-based operations. I feel that in a rural area a regional center, which would work in close coordination with a series of bookmobiles, would meet the needs of an ever-increasing number of people who are deprived of the opportunity of availing themselves of the traditional library setting.

Particularly we find that there is an increasing number of nursing homes in which the people are still mentally active. These are oftentimes people who have had a professional life, people who have been library users in the past, but find that now, since they are confined to a nursing home, they are cut off from any kind of individual, meaningful contact with the outside world. A bookmobile coming to a nursing home provides this kind of contact. I find that when people are cut off from their normal contacts, many of them suffer mental depressions which often lead to aggravating their physical ailments.

In addition, in smaller towns the professional people -- the clergy, the physicians, the attorneys and so forth -- do not have access to current materials because there is no library or the library is too small to have an adequate supply of specialized materials. Now, they may get material on interlibrary loan, but often this takes a great deal of time. We find that we have to depend on the bookmobile. My community, for instance, has no library; we depend on the bookmobile and the personnel to mail material to us. They will even make extra trips that are unauthorized in order to see that we get material that is needed in a hurry.

I would like to reiterate or support the statement of the lady from Maine who talked about medical libraries. We have in our community large numbers of interns and residents who are not American citizens. The general reading materials, when they use the library, is improving their knowledge of English and this improves their ability to take case histories into consideration and to be better physicians to people in the community. So this is an important concept.

I think that the bookmobile does something else. It is oftentimes the first step to motivate the people to seek out regular organized library services of the traditional kind. If the bookmobile is their first contact

with the library, and this is unsatisfactory, there is no motivation for them to make an effort to go to a public library any place in the city.

I believe that the Commission should sponsor and encourage research into the development of mobile libraries that will have microfilm storage, retrieval systems and the kind of electronic devices that would enable them to provide for rural America the kind of library services that are found in the large cities.

I think that the rural Americans are entitled to this and the migrant workers are entitled to this because I think it is a tragedy to waste a mind wherever that mind may be found.

Mr. STEVENS: I would like to be sure that I understood what you said. The ordinary bookmobile carries something on the order of 3,000 to 10,000 volumes as kind of a maximum.

Reverend MEYERS: Yes. It is a 3509-type vehicle.

Mr. STEVENS: Yes. If one converted a substantial volume of that stock to microfilm format and provided users with facilities for getting at that material, you are suggesting it would be possible to have availability to one hundred to two hundred thousand volumes or more?

Reverend MEYERS: Yes.

Mr. STEVENS: -- of information on a local basis temporarily, as long as that bookmobile was located in a specific location. Users in your view could be taught to manipulate microform readers; they would eventually want them and would gain access to wide varieties of materials through traveling bookmobiles rather than access to narrow collections of materials through standard bookmobiles. Is that correct?

Reverend MEYERS: Yes, Mr. Stevens, and I also think that if this material were available in the bookmobile, it would provide a stimulation for the users at a later time to seek out a public library in town which might be

some miles away, and also it would provide them with additional library skills. I heard an earlier speaker comment about the fact that people were not educated to library skills, and this would certainly give them some basic skills prior to entering the front door of our traditional library.

I would also like to point out that with a building, it is in one place, you have high maintenance costs and it is a static situation; whereas with the bookmobile, you have your investment in the machine itself, the truck itself, but it is a minimal investment and it serves a wide area and also a large number of patrons.

FOSTER M. PALMER
Associate University Librarian, Harvard University Library
Cambridge, Massachusetts

Mr. PALMER: For the past several years, I have been working with the application of computers to libraries. However, I am going to disappoint anyone who thinks I may have found the philosopher's stone in this area and go back to an earlier time when I was in charge of public services in the Widener Library, which is the central library at Harvard. My comments are really addressed to two caveats in the area of making the resources of large libraries available more widely to the public.

I think in the large libraries we feel a great sense of responsibility to make our resources available to a wider public than our own local clientele, but I have observed two areas where I think there has to be some caution, and in any networks that you propose that involve reciprocal use of libraries or use of academic libraries by the public, I want to call attention to a phenomenon, and perhaps I should read this since it is probably more succinctly put than I would be able to do ex tempore.

It is perhaps something of a paradox, or at least not necessarily what would be expected by the layman, that there tends to be a direct rather than

an inverse relationship between the rarity or unusual quality of library holdings and the willingness of the owning library to share them with all world. Rare book libraries are customarily open to scholars without regard to institutional affiliation. Of course, the rare book material requires special protection, but this protection is given impartially. It applies to local users as well as visitors.

The large libraries have large numbers of unusual, scarce though not rare, books. They form perhaps the main part of most large libraries. These are not the rare books in special rare book libraries, but they are uncommon, unusual, and scarce books, which make much of the difference between small and middle-sized libraries and large libraries. Requests for use of those scarce materials in the general collections by people who are not members of the institution, either to use them on the spot or by means of interlibrary loan, are generally dealt with very sympathetically.

To be sure, there are problems in this area. The whole financial basis of interlibrary loan is under study, but in general I think you will find the large libraries really are glad to make their resources available to other people; they do not hoard them for themselves. Where larger libraries do draw the line and become very protective against use by persons outside their regular clientele is likely to be when the visitors want common materials for which there is already competition within the library's primary circle. In most cases these books would be available to visitors in their own libraries, but there is a practical problem here, that in deciding which library to go to on a particular day, on a particular occasion, a person quite naturally prefers the library that has all the books. Then when he gets there, he doesn't limit his use as a visitor to the uncommon books but he competes with the local people, the students and so on, for the latest book by J. K. Galbraith, or whatever it may be.

So they may have been given permission to use the large library possibly in some general cooperative scheme worked out under the auspices of a body such as yours, on the basis for their need for its unusual resources. But then when they get there, they compete with everyone else for the common books.

Now, I don't have any particular solution here, but I think it is something that should be kept in mind as cooperative agreements or agreements for cooperative use are being made. I think that much of the resistance to such agreements might fade away if this particular problem is addressed.

Now turning from the use by actual visitors, I would also like to make a caveat in the general area of microfilm. To the extent that a national network might lead to greatly increased sending about of original copies of scarce though not rare books, I am very concerned about the problem of book wear. Certainly an alternative to sending books around is microfilm, and I think here specifically I would hope that any program of microfilming in lieu of loan would be coordinated with programs of microfilming for preservation.

There is a great problem, as I hope you are aware, of poor paper books. Ever since the introduction of wood pulp and other non-rag papers a century or a century and a quarter ago, there has been a severe problem of deterioration. This isn't helped by the fact that most American libraries are overheated and very dry in the winter. So we do need to conserve our original books, and there are proposals for microfilming for preservation. I can see where there might be a great deal of microfilming for purposes of library networks, and I would like to see these two types of microfilming coordinated.

Certainly it would cost somewhat more to microfilm a book for a preservation program, that is up to archival standards, than it would merely to provide a reading copy which might be considered more or less a throwaway. But my opinion is that in any such program of providing copies, when one

considers not only the labor of page turning, which is a very large factor in microfilming, but the wear and tear on the books, I would hope that the fairly modest additional cost of processing to archival standards could be absorbed rather than making throwaway copies at a slightly lesser cost.

Now, those are rather specialized points perhaps, but they did occur to me from my experience in the public service area and they might be relevant to a program such as your Commission might sponsor.

Mr. BECKER: Foster, from your experience dealing with computer applications, -- and maybe this is an unfair question -- could you tick off the one, two, or three major obstacles, national obstacles, that exist at the present time to computer progress in the library world?

Mr. PALMER: Well, I did in my written submission say that I think economics is more of a limitation than technology. There are many, many things that can demonstrably be done but they cannot be funded or afforded. I was speaking here of the use. I spoke of people going to the libraries, I spoke of microfilm. I didn't even speak of putting the text into machine-readable form. This is a very exciting possibility, but in my view it is as yet wildly uneconomic except in some very specialized areas.

Now, I think some things will be done in the medical area before they are done in the general area. For instance, the urgency is greater in medicine, the funding is better in medicine. The areas with which I have been personally concerned -- such fields, let us say, as history -- are going to be some of the last areas where such things as machine-readable full text will be available because it is so voluminous and you are not dealing with the larger proportion of new matter as you do with science and medicine, but rather with retrospective material. These areas have not drawn special financial support as medicine and science have.

Mr. LORENZ: You are not questioning the bibliographic machinery though?

Mr. PALMER: No. I think the bibliographic machinery is here, but I think the full text in machine-readable form -- the economics for that is very discouraging at the present time.

Mr. LORENZ: How about abstracting as an in-between step?

Mr. PALMER: Well, I think this is more attainable, but I think it will come first on a current basis in science and in medicine, where the relative importance of current and future material is greater. In other words, if you start putting abstracts in machine-readable form now, in five years in science you have got something. If you start doing this in history now, in five years you don't have much.

Mr. LORENZ: How do you assess the results of the INTREX project at MIT?

Mr. PALMER: Well, I think this is a tremendously interesting demonstration, but I think the scale on which it was done, the size of the library and the costs bear out what I say, that this will, to the extent that it is done, be done first on a fairly small scale in rather narrow areas where the material is concentrated in time and in volume and the support is good. I do not look to this as a really practical thing in such fields as history and so on in the near future.

Mr. AINES: Do you see any hope for COM?

Mr. PALMER: Well, yes, I think once you get over the hurdle of getting the material into machine-readable form, I think COM might be a very great saving over paper copies. But I think your big hurdle is getting the material into machine-readable form.

Now, in the written submission I did say something about capturing publishers' or printers' tapes. As you probably know, most books are now in the printing process going into machine-readable form, but at the present time it is very difficult to make further use of this material in most cases because of various technical factors. I do think that maybe there might be some

standards efforts here and possibly some development of a repository for material from publishers in machine-readable form.

Then, of course, this leads up to another very thorny topic, and that is copyright, and I am no expert on that; but one way in which this large body of full text in machine-readable form might come about over a period of years, is by input from machine-readable data in the publishing process.

Chairman BURKHARDT: Thank you very much.

This concludes the listed speakers on the public part of the program, and I want to congratulate those of you who spoke in keeping your remarks brief. We actually have got two and a half minutes left of the time.

We have Mrs. Tashjian here. There have been several references to the needs of children and I understand you are a really great authority on this subject. I wonder if you would like to take a few minutes to tell us what you think and what we might do.

VIRGINIA A. TASHJIAN
Newton Free Library
Newton, Massachusetts

Mrs. TASHJIAN: Well, I am really not an authority. I am an authority, perhaps, on children's storytelling and folklore, but may I comment on something apart from children's work, sir. Not that children are not important; they are, indeed, the most important thing in library work, but I have been much concerned about the fact that we are an information center and yet it is so difficult for us as public libraries -- and I speak now as a public librarian -- to impart that information to the public. It is so costly --

Chairman BURKHARDT: You are in the public library of Newton, Mass.?

Mrs. TASHJIAN: Yes. I wonder if this Commission ought not to make some effort to do something about making it easier and cheaper for us to use this country's postage. If it is possible for some of our legislators to send out

Information free of charge, and eighty percent of it is political, why is it not possible for us to use that same privilege? Our postage is phenomenal, and yet we, too, are an information source.

I would ask that this Commission do something to help us in that area. Actually, this does have something to do with children! There is a great deal of our information which goes out to children. Yes, I think the area of children is slighted in this report and I am terribly sorry about that, because over fifty percent, really, of most public libraries work within the field of children and, through them, with their parents.

Chairman BURKHARDT: Well, you must not be too concerned because this is a preliminary draft.

Mrs. TASHJIAN: Yes, I hope so.

Chairman BURKHARDT: And we have plenty of time to change it. This is one of the benefits of this type of hearing, to subject it to public scrutiny. We want to get this kind of input and criticism.

Mrs. TASHJIAN: I hope when you ask for input -- I am not ready to make any at this time -- I hope your school libraries and the school librarians and public librarians and, above all, those who teach children's librarians, the educators in the children's field, do get together and give some input. This is very important. We seem to slight them and they have a lot of influence on children. I am really not prepared to make any other statement.

PHILIP J. McNIFF
Director, Boston Public Library
Boston, Massachusetts

Chairman BURKHARDT: Mr. McNiff, of the Boston Public Libraries, is in the audience. Would you like to say a word or two to us?

Mr. McNIFF: Thank you very much, Mr. Chairman.

Chairman BURKHARDT: You have been here all morning, so you must have a

good notion of the scope and complexity of the problems that confront us all.

Mr. McNIFF: I have been very much interested in the various remarks that have been made, and also in the draft proposal which you have for networks.

Mr. Canham, one of our former trustees, is going to be speaking to the group and I don't want to impinge on anything he might be saying to you, but the question of the role of the metropolitan library did come up earlier.

I think we need to have concern for the role of the metropolitan library in any network that is devised. I think the programs must start at the grass roots in the local communities, because it is here in the local communities where you can identify the various problems in regard to the disadvantaged, whether educationally, ethnic or whatever the character of the disadvantaged state that the people are in. I think we need to have a total program of resource development, and this is one of the things that has not come today, when talking about the role of libraries.

We heard about the rural libraries and we heard about the services in our neighboring states to the north. In Maine and Vermont and New Hampshire, and I think one of the things that the Commission should address itself to is the federally-financing resource in each state or region of the country so that that resource would be immediately available and accessible to the people in the state.

I think it unrealistic to think in terms of depending upon a central library in the United States as a central lending library. I think our programs need to be divided perhaps into three categories: first, the need for bibliographic information; and here I would strongly support and urge the Commission to back the Library of Congress program for getting full funding for the impact program because this is not only of value to the research libraries or the large metropolitan libraries, but I think these services can be filtered down into the smaller libraries by network operations.

The second point is the need for regional resource lending centers which will upgrade the accessibility of resources to people for whatever purpose they need them.

The third area is reference and research resources, and I think we cannot depend on our private institutions or universities or our specialized libraries for this service because these are not always as successful as one would like.

Mr. Palmer pointed out some of the problems that are inherent in trying to develop greater access to the large university library collections, but when one considers that the normal life span of a person in the business or professional world where he needs access to information is a much longer period of time when he is in the formal education period of his life, one realizes that this is where the metropolitan library or the regional or state resource centers can play a vitally important part.

ARLENE HOPE
Library Services Program Officer
Office of Education
Boston, Massachusetts

WRITTEN TESTIMONY

I wish to express to the Commission my appreciation for this opportunity to bring forward some of the observations and viewpoints I have developed over the nine years I have worked with the Six New England States as their Library Program Officer in the U. S. Office of Education. Familiarity with the library programs of the six States and close association with the libraries of the Region have filled me with admiration for what they have been able to accomplish and with eagerness to spur them on to speedier realization of their still-to-be accomplished goals.

It is from the vantage point of regional thinking that I try to encourage the initiation of cooperative activities, because I am thoroughly convinced that some major library services can be dealt with cooperatively by this six-State geographic area, in preparation for national tie-in.

Therefore, for the purposes of the Commission's national planning document I shall attempt to concentrate on the first two of the topics suggested

by the Commission: national networking of libraries, and priorities for service, particularly as these relate to the New England scene.

National Networking of Libraries

In 1969 I prepared an article for publication in the *Library Journal* * on cooperative activities in New England. Emphasizing the proposal already set forth by Walter Curley in his planning studies for several of the New England statewide library development plans, I stated, "To achieve the goal of total library service for New England, it seems evident that one overall coordinating unit is essential. A Regional Center could become this focal point and could provide, in addition to network and bibliographic services, supportive activities for libraries, such as computer services..."

Since that date several important steps forward have been taken by New England library groups towards regional cooperation. Through the efforts of the New England Library Association's Regional Planning Committee, a New England Library Board has been created, with powers under the Interstate Library Compact Law to develop regional services. Their advisory body, the Panel of Counselors, representing all types of libraries in New England, is empowered to make recommendations concerning the whole range of regional services, and is currently urging that a regional service center, including interlibrary loan, be considered.

It is here that our regional concern broadens into national concern. The question does not seem to be whether or not a national network should be established, but how soon will it be ready for such a regional tie-in. Should we in New England move ahead with a local plan without any indication of what might be envisioned by the Commission as a national plan?

It would seem incumbent upon the Commission to produce as soon as possible some indicators of its thinking on the network development so that local planning can also proceed. The Commission studies were to be completed in January and March 1973. (Annual Report of the Commission, 1971-72, p. 30). If these give any evidence of need for a national network, a preliminary framework of the future plan should be prepared and issued now, not waiting several more years for the remainder of the hearings and their testimony. It would be better to present a guide for planning towards a national network which can be utilized now rather than four or five years hence.

Experience in tiny cooperative efforts, perhaps only between two libraries, shows that the whole gamut of library service cannot usually be encompassed simultaneously in one cooperative design. Rather, one element of service must be attempted cooperatively at a time. Nationally this will probably be even more true, so that, although a fully developed plan incorporating all aspects of user need and technological capability to respond to such need is the charge of the Commission, it is recommended that any segments of the plan that can be implemented separately be initiated promptly. Regional efforts can follow suit.

To sum up this topic, networks at the regional level exist or are imminent. The national plan for networks should be the Commission's first concern.

* When I was five; Half a decade of LSCA in New England, by Arlene Hope. *Library Journal*, October 15, 1969, p. 3622-5.

Priorities of Service

I have urged above that networks be given the highest priority consideration by the Commission. This does not assume however that I believe the researcher or scholar who needs a comprehensive collection should have priority in service over those unserved or inadequately served. The scholar usually has a strong motivation to use the library and its network, but the average citizen is not thus moved and can easily be deterred from pursuing his interests if he encounters any difficulty, however slight.

I should like to make the point that unless the library profession educates itself and the general public in network use, the establishment of a national network of sophisticated information retrieval will not be economically justifiable, as it will remain underutilized. It needs every citizen regularly using its terminals.

This must be a two-pronged effort, focused on the first immediate contact point of the network -- the over-the-counter meeting with the library patron. One effort must be directed to the training or retraining of every staff member in the network concept. Many librarians fear the unfamiliar new technology, may even be reluctant to have a telephone in a small town library or branch, may view such extended service as too much work rather than a source of customer satisfaction. You may hold that this contact training should be a local responsibility but I suggest that it will be the larger responsibility to develop staff training programs to insure successful network service. New England has recently had a six-State training program in outreach practices. Similar programs will have to be mounted to insure network acceptance by librarians themselves.

The other prong of effort must be directed towards both library users and non-users. A massive public relations program is vital to changing the image of the library from "something there" to a basic necessity for every citizen in his daily life. Again I see this as a nationwide re-education and stimulation responsibility into which local public relations efforts can be meshed.

Priorities in service, then, are not only to produce a better informed public who will make use of the service, but a better trained staff who will be capable and willing to extend network services to all.

Ms. HOPE: It is a great pleasure for me to be here and have the opportunity to talk with the Commission. I did indicate that perhaps you didn't need me today because you would rather hear from the general public, but I was asked to speak with you.

First I would like to give you my comments on the draft proposal, and since I have written out a little summary of these remarks, I can do it quite quickly.

I would like to say that I think the idea of a national network is not a new one, because we have been talking about this for, lo, these many years. What is new about this proposal is that for the first time an official national body is coming out with a strong statement in support of the national network. I approve of this, of course, because I had it as part of my recommendation in my prepared testimony.

I would like to comment on several specific points which I think other people have already brought out. It is apparent in the draft that the concern had to be spent mostly on the federal role and the state role, but we have heard already that there is a real omission in the paper thus far of the strong role that the city library should take and the involvement of the medium-sized and small-sized libraries. Also, the academic libraries and the school libraries need to have their inputs, too.

Now, in my testimony I assumed that a national network could become a reality because of the technology which is already in existence. I use the FTS (Federal Telecommunications System) system every day, so I know that there is a national communications network. I know that there are computerized programs that are easily used, so in my testimony I accept the fact that a network can become a reality. Therefore, I would like to point out two things that I think have to be a reality before the network can become very useful.

One of these things is the immense effort that must be made by the Commission and by all the libraries, and the immense amount of money that it will take to tell the public about this program. It has long been my feeling that we have not changed the image of the library because we have not told the public what we have and what we can do. You heard Ralph Nader say in that exciting meeting at Midwinter ALA that we need Madison Avenue techniques, and I believe this: We ought to have, for example, in this network, a little

subliminal line that keep saying to every person, "Go to the library, go to the library, go to the library."

If you don't instill this basic concept in the general public, in every citizen, you are not going to have any appreciable use of the network by the general public. I indicated in my testimony that I believe the scholar does not have to be urged to use the library. You heard that this morning very thoroughly from the professor from Bennington College.

The other point I would like to make very strongly is the fact that a network plan assumes that every librarian in the country is not only sold on the idea of a network but is ready, willing and able to use it, and this is not so. Many librarians are even afraid to use a telephone; they will not use the telephone to call up for an interlibrary loan. How much more is needed to train librarians in the use of a national network!

A good example of this occurred when I was working out in California. You may remember and may have read the description of the San Joaquin Valley Information Service. In the beginning, librarians were so unused to the idea that they could pick up a phone and call the Service and say, "Can you help me get this information?" that they were slow to use it. An intense training program was needed to stimulate librarians to use the network service that had been set up for them.

So I think those two points -- the network must indoctrinate the public and the network must indoctrinate staff -- have to be addressed before the network itself will either be utilized to any practical extent or be used at all.

Mr. AINES: Do you really think that the public can be "Madison-Avenued" into a library?

Ms. HOPE: I think that the public, or at least a great number of the public, can be "Madison-Avenued" in.

Mr. AINES: I think that is the first time we have used it as a verb.

Ms. HOPE: Well, you heard Mr. Sakey say that eighty percent of the people don't use the library, but I think a lot of these people will use a library if they are told what the library is and what it has.

Now, I may be confronted with the idea that once they get there they don't find what they want because the library is not adequate, and I have to grant you that, too. But how many people do you know who just say, "Oh I never use the library!" However, if they do get "Madison-Avenued" into the library, they may find materials they can use or, if the network is operating properly, the librarian will say, "I don't have it here, but I will try to get it for you."

Ms. WU: I would like to know the structure of your office. Just from your title I know you are the Library Services Program Officer in Region I. Are there other people working with you?

Ms. HOPE: I am part of the Office of Education in the Department of Health, Education and Welfare. I am the Regional Program Officer for the six New England states, which is Region I. There are ten Office of Education regions in the country, each of which has a regional library program officer like myself. We administer the Library Services and Construction Act Program and we provide technical assistance to the state library agencies. We also have involvement in some programs of the Higher Education Act.

The Program Officers in the region do not administer the Elementary and Secondary Education Act. This is administered directly from the office in Washington.

Mr. LORENZ: From your personal, professional librarian point of view and as a regional coordinator for this area, do you feel the libraries are ready for a more generalized approach to federal assistance for libraries, or do you feel the categorical grants should continue?

Ms. HOPE: You heard from a number of people this morning their pleas for the continuation of categorical grants. I support this right now because our work is not yet done. We have not gotten beyond the need for local support being concentrated mainly within the local area. In terms of reaching our national priorities, this little extra bit of money devoted strictly to library service can be used to try out something new and different, which a library has not been able to afford from its own budget. It might be a project within a single library such as the Boston Public Library Homesmobile, or within the state area, such as the Worcester Area Consortium you heard about from Mr. DeBuse, or an interstate program such as the Document Conservation Center you heard about and other interstate activities that we are just starting up. So I feel right now that we should not stop a categorical grant program to libraries. Ultimately, if there were enough money at the local level and at the state level to carry on the basic program, it might be more appropriate for the federal government to expand support for the national network and to pick up those special innovative programs which are so necessary but which the individual community or the individual state just does not have enough money to cover.

Mr. BECKER: Arlene, I would like to get back to Madison Avenue. I see a contradiction and would appreciate your comment on it.

While at the same time we may be trying to bring more people into the library, it seems to me we are continuing to erect barriers to service -- "we" meaning librarians in some cases -- because we are unsure that we can handle the work load. It is that kind of attitude. So we are not very aggressive about going out to find new customers. That is a contradiction.

Ms. HOPE: Yes, it is.

Mr. BECKER: How do you read it?

Ms. HOPE: I can sense the tightening up of the muscles when you suggest

to a librarian that it is time to go out for a big publicity campaign, for this very reason. She or he will say, "We are doing absolutely everything we can right now. We cannot stretch ourselves another inch," yet we all know that most librarians do try to stretch themselves beyond a normal capacity to perform.

I think the only answer is that at the same time as I am urging a massive campaign to get the public to come into the library, I also have to urge a massive campaign to get more funds to provide more staff, to provide better programs, to satisfy both old and new customers. It just has to be both things at once or I doubt if the Madison Avenue effort will be successful.

Mr. STEVENS: Arlene, is there any changing pattern in the willingness of special libraries in the New England area to assist other libraries in forming networks and providing their specialized resources through the public libraries or school libraries to people who need the resources of special libraries?

Ms. HOPE: That is a nice question and I think the answer is yes. You heard from Mr. DeBuse this morning how the American Antiquarian Society and the Worcester Foundation and the Worcester Art Museum are willing participants in the Worcester Area Cooperating Libraries consortium.

Now I was in the area as Regional Director for a short time and I knew those libraries. I think if I had had an occasion to ask for an interlibrary loan, I might have received it, but I had no concept at that time of involving these special libraries as full participants in a consortium such as now exists.

Also, we have good evidence of special library involvement in the fact that you are going to hear from a special librarian very shortly, Mr. Huleatt of the Special Libraries Chapter in Boston. Special librarians are represented on the Panel of Counsellors of the New England Library Board, so you see

the special libraries are entering the field of total library service which we are promoting here in New England.

ERWIN D. CANHAM
 Editor Emeritus, The Christian Science Monitor
 Boston, Massachusetts

Ms. MOORE: Our next witness is Mr. Erwin Canham. Mr. Canham needs no introduction certainly to a Boston audience. As you all know, he is editor-in-chief of The Christian Science Monitor and former president of the United States Chamber of Commerce and trustee of the Boston Public Library, three very important groups of people for whom he speaks. The chair would like to remind Mr. Canham that she served with him on a board about 20 years ago. I haven't seen him since and I would like to say that you must have discovered the Fountain of Youth.

Mr. CANHAM: Madam, you are much too kind. I would like to say that I return the compliment. It was an interesting experience.

I shall try not to bore you with reminiscences of my life with libraries. But I have been more or less intimately connected with libraries from my college undergraduate days to the present, when, as your chairman has kindly said, I am just rounding out three terms as a Trustee of the Boston Public Library. There was a time when I was a freshman in college that I was paid for working in the public library. I got a dollar a night, three hours' work, trying to maintain order in the high school reference library in Auburn, Maine; and this seemed to me to be lavish beyond the dreams of avarice, and I was very grateful for it.

The link between my private life and my professional use of the resources of libraries has been a very genuine and important one. But I am not interested in reminiscences and I am sure you are much less interested in them.

I am very much more interested in the future, and especially in what this

Commission is seeking to work out. As you know, and as others have told you far better than I can, here in Massachusetts we have worked out a regional library system in which, from the layman's point of view, from the trustees' point of view, an admirable start seems to have been made in making available to all communities in the Commonwealth the best in library resources. I have no doubt that this kind of regional system, like others, will be helpful to you as you make the quantum leap toward a national system. And I daresay that there are many differences between what can be done at the scale of the region and what will have to be done nationally.

We are all very poignantly aware and disturbingly aware of the fantastic growth rate of knowledge. Whether it be that scientific knowledge doubles every fifteen years, as some have calculated, or at a somewhat lower rate -- say once every twenty-five years -- there is no doubt that since the days of Isaac Newton the growth of knowledge has been very, very cumulative. No doubt you are more familiar than I with Fremont Rider's calculation that if the output of books continues to grow as it has from the middle of the 19th century to the middle of the 20th, the Yale University Library would in 2040 have about 200 million volumes occupying 6,000 miles of shelves, coming in at the rate of 12 million volumes a year.

This is one of the many exponential rates at which so many things which are examples of growth in our system have developed. I think this, as well as some other things, will have to flatten out before they reach the point of absurdity -- flatten out something like the curves called by the mathematicians the sigmoid. I love the word "sigmoid" and use it with relish. It is a kind of "S," and as the curve goes up and then begins to flatten out, I should suppose quite a number of our growth curves will have to assume a more moderate pace before we destroy ourselves and our society.

I am not preaching a no-growth society doctrine at all but am trying to

approach realistically, an expectation that the notion of exponential growth in many things, including growth in many kinds of publications and so on, is still under the influence of natural conditions and will begin to moderate. Already though, whether it does or not, and particularly in those respects in which it has not flattened, surely we face very acutely the problem of information glut.

I do not suggest, of course, that we know all there is to know about everything -- far from it -- as some respectable scientists in the 19th century believed we did. Of course, they were wrong. Some people as late as the 1930's were making some such statements. I am sure we will go on discovering some very important things, go on building up the stockpile of knowledge, but I hope the rate of discovery will calm down somehow.

The problem you are tackling, which is directly related to the handling of the stockpile of knowledge, is not only the assimilation and the storing of new information but facilitating access to it and distributing what we already know, let alone what we may be adding to our stockpile as time goes on.

All of us who want and need access to information should eagerly support what you are striving to do. You can help us escape, I think, from the frustration and the confusion and, indeed, perhaps the turbulence which can result from information glut. So I place great importance not only on the storage of information but on its codifying and distribution. More power to you. You can help to save us from drowning in a sea of information. You can teach us to swim and navigate. Perhaps the best way to say it is that you are building the boats which will keep us afloat as we are engulfed by the floods of knowledge.

May I now descend from what may be the grandiose to the mundane, and I hope to be quite practical, and as I do, let me confess to a conflict of in-

terest. If you want to stop me, please do so. I will be prepared to stop if you want me to, but I happen to be involved personally in the development of a major system of national data transmission. I am a member of the Board of Directors of a company known as DATRAN, Inc. This is a company being rapidly built up into a national network for data transmission. By the end of this year we will be transmitting data over the first link of the system, in Texas, and then soon will extend it to the major centers of the nation.

Ours is a digital switched system. The computer speaks to computer in digital language, which means that it will transmit information much faster, much cheaper and much more accurately than existing systems. Anything that can be put in a digital mode -- and I think that can be applied to all information just as in existing facsimile transmission -- can go over this network.

Using existing networks of analog form, 2,000 to 4,000 bits per second can be transmitted. By the Datran digital system, 1.3 million bits per second can be transmitted, and that is a very major difference.

Therefore, I suggest, with due respect, that before you commit yourselves to recommending the necessity of a new network, possibly a governmentally financed data transmission network, you look further into what will soon be available in a privately financed commercial system.

I shall make so bold as to suggest that suitable executives of the corporation on which I serve get in touch with your Washington office, to provide any information you may need from them in making your own evaluation of the situation, of the system and of the technology of data transmission, which is so radically changing.

As I say, I hope I am not out of order in this brief reference, for I believe that the transmission system by which you join the centers of knowledge is of very great importance to the economics and effectiveness of the plans

that you are developing. I conclude by reiterating my conviction that you are working in a crucial area. Knowledge has been called our "strategy resource." The future of our society depends on its wise use.

At the very end let me perhaps touch a slightly facetious note and point out that as a citizen of Boston, as a New Englander, one is singularly unselfish in applauding your efforts. The availability of knowledge, not only in libraries but elsewhere in the great educational institutions of this part of the world, has saved us from economic decline. With the departure of the textile industry, New England was severely hit. During and after the second World War, the growth of knowledge at MIT, at Harvard and elsewhere began to spin off into new laboratories, new companies, new manufacturing plants, new researches, until it produced the magic crescent of Route 128 and we were saved.

Now, in supporting you in generalizing much of this knowledge to all the rest of the country, we are carrying altruism pretty far. Of course, we could not bottle it up, even if we tried. Knowledge migrates. Ideas spread, even without electronic aid. Sometimes I think even ideas spread better by the tom-tom and the underground than by microwave systems. Sometimes that is the way it works, but there is no reason that we should not participate in the sharing of knowledge efficiently.

I am sure that your report, your recommendations, will be a major contribution to the well-being of our national society.

Mr. AINES: As an old-time reader of your paper -- and I will go back to that side of your discussion -- I certainly appreciate your words.

Very recently a study was made by the Organization for Economic Cooperation and Development in Paris. I am sure you are familiar with that, too.

Mr. CANHAM: Yes.

Mr. AINES: The study was made by an economist from Paris -- the Sorbonne

is his stamping ground -- who was asked to look at the number of people that would be involved in information processing, broadly speaking, for the companies involved in OECD to make predictions and to create national policies, if you will, that would respond with the requisite kind of educational and training systems.

He decided that in order to do this he would have to have a better fix on the quantity of information being developed. Since you mention this, I might tell you that his findings are very momentous because that logistic curve that you talked about, which there is another name for, some people believe has reached the outer limits. He denies it vehemently and has indicated that by the year 1985 there will be a 34 to 74 percent increase of knowledge, which makes it much more than the doubling factor that was mentioned, if this is correct. With this representation of the total community here and the knowledge in the community of the United States, there will have to be some serious engineering and reengineering undertaken in our knowledge-handling activities.

I mention this because I think the message of this gentleman ought to be gotten into the press somehow. It would be the strongest ally we have in the library information world if people understood that we are not necessarily just trying to improve the health of our libraries or worrying about our economic futures. We have a real problem ahead, and these projections show what that problem is.

Mr. CANHAM: I had hoped I would get some good ideas by coming here and already one is forthcoming. I have just been reading the chapters on this subject in Daniel Bell's current book, "The Future of the Post-Industrial Society," and it is he that talks with some reserve about the possibility of a sigmoid curve in the growth of knowledge, and quite possibly it could be that the distinguished scholar in Paris is right. But I have also been in-

involved in other recent researches in how to avoid being completely overwhelmed, being able to handle and cope with this.

Some people think that the knowledge tide will produce turbulence. In the ability to cope, we all know that the capacity to make decisions is sometimes inhibited by knowing too little and sometimes inhibited by knowing too much, and this is one of the dangers. Insofar as the kind of system you are thinking about can somehow aid in the codifying as well as in the transmitting of information, you will surely be making a direct contribution to this very serious problem.

I don't know. From where I sit, obviously I don't see how any of us can be any too confident about the rate at which the growth of knowledge is going to continue, but in my bones I would think that your savant in Paris is more nearly likely to be right than those who expect it to flatten out. Yet is it not true that surely some growth rates cannot go on forever in many areas of human life, including the population? Therefore, why should we not expect somehow some kind of moderation in the knowledge curve as well as others? I don't know.

Mr. AINES: Let me point out that it is not necessarily true. It is only new knowledge that creates this continued exponential curve, compounding the effect, but as we are moving into the data world, where transmission, the handling, is within the computers, where miles of magnetic tape are involved and storing up of bits of information, we are creating a new situation which this world has never seen.

The explosion of data, we feel, will follow the explosion of literature, and I don't believe there is a school in the country today that is preparing experts who will be handling data in that mode.

We have asked, for example, in the past how many people are trained to handle the information processes in the quest for environmental quality.

There are no universities that are training people for this type of thing. They must come from all other kinds of fields: engineering, science, library. But for the great needs that we are beginning to find in information areas, there is no practical, no academic schooling provided. Everything now is practical and we don't know whether in the long run this is the best way to go. This is starting to become the major way of creating knowledge in the future, so you can see the difficulty we will have because there will be literally many, many miles of tape that will accumulate in great new future libraries.

So the point then is that we are in a period of preparation, and I hope I will be able to encourage your own writing in these matters.

Mr. CANHAM: Yes, and I gain hope in the fact that we have learned to miniaturize and I hope we have learned something about how to codify as well as miniaturize and classify.

Mr. CUADRA: I am glad you relieved us of any guilt in our demand for more training. I think it is important to have competition of the sort that Datran and others are providing to drive the costs of communications down.

I have one question. You sell information, in effect, and I think, more than many organizations you treat it as a commodity rather than, say, as a resource. I wonder if you see any kind of dividing line between things that ought to be provided free to the public and things that ought to be paid for.

Mr. CANHAM: Well, surely there is not anything that is really provided free. It is whether or not you pay for it in an apparently concealed way. I wonder if perhaps you would tell me whether I am missing the understanding of the question. If you are talking about, say, the flow of news and the description of events in the world, information about events, news, and if the idea is that this should be a public service, I think that this presents considerable difficulty:

(a) We want and have not got as much competition as we would like, and

(b) If it is to be paid for out of taxes, this raises the question of who controls it -- a grave matter.

So I would think my answer is that I would like to have everything that the citizen receives identifiable in terms as to how he is paying for it instead of thinking that he gets it free. I would rather have all of us know that we are paying for something. We should disabuse ourselves of thinking that when we listen to the radio or watch the television it is free, and realize that we are paying for it in the toothpaste and some of the other less admirable things that are advertised.

So, no, I guess I would say as fully as possible I would like to have the price tag on everything we get and pay for it directly, rather than indirectly.

Mr. LORENZ: At the other end of the information scale, Mr. Canham, we earlier today heard a very discouraging picture from the City of Cambridge, where it was reported that 80 to 90 percent of the people had either cut themselves off from library access or were cut off from it. As a trustee of the Boston Public Library, would you comment on the relative emphasis that should be given to this problem versus the problem of getting access to the libraries for the more sophisticated user?

Mr. CANHAM: I regard this as an absolutely vital and primary problem. I don't know whether Mr. McNiff told you about usage of the Boston Public Library and its branch library system. I hope he did, because I believe that business is quite good and that there is quite an extensive and, I think, a growing degree of utilization.

Now, why there should be a difference between this and Cambridge, I do not know. Therefore, I could not answer, but I share the feeling that this is the ultimate test: how much of the rich value of the library is reaching

people and is thus having something to do with the values in their lives.

I would say, for example, there is no point in writing anything unless someone will read it and there is no point having it in the library unless somehow or other it enters into the life of someone and does something for them, even if it is just entertainment, which is an important part of life. So I think it is an important problem to which the utmost attention should be given.

I listened intently to the previous witness, who was talking about the promotional support of libraries. The phrase "Madison Avenue" is of course a condemning sort of phrase and I would not use it, but at the same time I do not think that there is anything wrong in libraries seeking whatever ways they find compatible with their role in striving explicitly to reach the community and in promoting their services. Indeed, we have to promote practically everything else, and there are legitimate ways of doing this, there are good ways and vulgar ways, and we have to find the right way to go about it.

But I agree that the problem of making sure people use libraries is important, perhaps the most important, in all of the range of topics that you are contemplating.

Mr. STEVENS: Mr. Canham, may I follow up on your comments regarding paying for services. The daily newspaper, with its conveyance of news, is paid for by subscriptions and advertising, at least in part. The New York Times is now finding that its past record is also a commodity. That is, the information of another record is still viable. I know that Mr. Sanger and Mr. Finland in your organization have collected materials and have now put them in microform and made them available as a question-and-answer service freely in the community here in New England, and I wonder if you can foresee that information source at the Monitor and other newspapers becoming a kind of retrospective well of information that is either free or available at a charge?

Have you thought at all about that in terms of future development?

Mr. CANHAM: Yes, indeed. I think that there are the two approaches you suggest. One, this could be developed as a kind of utility, as a kind of service for operations which need that kind of professional information. In other words, in a regional or local newspaper one would no longer have to seek to maintain all the range of activities of its reference library necessarily but could tie into a network, which the Times, I believe, has done quite a lot to set up. I think we would all be very much interested in cooperating in such a system, and I would not be surprised if it will be here one of these days as a sharing, not only for information media themselves, but, as you suggest, in whatever ways are feasible and useful for the public.

I have spoken of promotion. This might be a very good way for a group to promote itself. I think we are making emphasis on its service to the community by adding this kind of service to the regular printed word. I may add that I think in the next period of time, maybe not in this decade but a little farther on, I would expect the whole process by which news and related information, the normal newspaper content, is communicated to people, will change very drastically and take an entirely different form. It may well be through cable television and the printout; it may well be that it is at your console at home, where you dial up a package of information about business, a package about sports, a package about shopping and commercial packages, a package about national news, a package about international news and so on. This may well happen. These things are technically possible, as you know; the question of who is going to finance them, the question which Mr. Cuadra asked about, what is free and who pays, is, I think, very relevant to this whole range of change. A good deal of what a newspaper provides, as we all know, is a sort of invisible thing because while the advertising is not invisible, oftentimes people don't realize that what they pay for the paper is usually less than half of what it costs to produce, and that, therefore,

my theory of wanting everything to be identified is a little nullified by the daily practice of newspapers.

We, all of us, carry a little water on both shoulders perhaps in many issues, but anyhow if we are going to go into new modes of the delivery of information, it has got to be financed and will require, I suppose a stupendous investment. I don't see any reason in the world why the taxpayer should pay for this particular transitional change. When and how it will come about, I don't know, but this is part of the general picture which you asked me about. In other words, the role of the newspaper in providing information.

I would not be surprised if fifteen years from now newspapers will be news resources with a different kind of relationship. I cannot stop without saying something which I believe very emotionally and very profoundly, and that is that written language, the printed word, and not just the spoken word and not just the image, will remain a highly vital method of communication. You may be able to tell me who it was who said that the two greatest inventions of the human race were written language and money. Be that as it may, I don't think, with due respect to the distinguished savants who have said otherwise, I don't think that written language is going to cease to be a very vital part of communications. Therefore, I think that the newspaper in some form, printed and written language in some form, will be a very significant method of communication. I believe this because written communication, printed or otherwise, has the immense advantage of permitting the consumer to absorb it at his own pace, in his own way, rereading or stopping or having a nap or doing what he likes. This is a form of individual communication as contrasted with mass communication, in which the listener or viewer is to some extent at the mercy of the time factor and the pace of other people.

Therefore, I think the individualized communication of written language will remain important to the human race, and this is a good word for libraries

as well as it is for newspapers.

Ms. MOORE: Mr. Canham, we certainly thank you for your very erudite testimony and we invite your continued interest in the Commission as a trustee of the library, as a businessman and as a member of the Fourth Estate.

EDWARD V. CHENEVERT, JR.
 Chairman, Panel of Counsellors, New England Library Board
 Library Director, Portland Public Library
 Portland, Maine

WRITTEN TESTIMONY

Thank you for your invitation to submit written testimony on behalf of the Panel of Counsellors of the New England Library Board.

The six New England states (1970 pop.: 11,848,000) have established by interstate compact the New England Interstate Library District, the governing body of which is called the New England Library Board. The Board consists of the six state library administrators, or their deputies, as Compact Administrators.

The Panel of Counsellors, established in October of 1972, is a forty member body whose function is to give advice and counsel to NELB. The Panel has six representatives from each of the New England states, representing each of academic, school, public, and special library interests in that state; and, additionally, two Counsellors representing the lay library community in each state. There are also four regional *ex-officio* members of the Panel with full voting privilege: the President of the New England Library Association, the Executive Vice President of the New England Council, the Executive Director of the New England Governors' Conference, the Executive Director of the New England Board of Higher Education.

Library Development in New England

By geography, as well as by confluence of a diversity of library interests, New England has a very real potential for the development of better library and information services to its people -- when so undertaken on a region-wide basis. (Examples of such activities, such as NELINET and the New England Document Conservation Center, have already been described in previous testimony before the Commission, and elsewhere, and require no further enumeration here.) The need, as I see it, is for federal legislation and funds to promote, encourage and support regional undertakings.

The New England Library Board, by its very nature and composition, can play an important and meaningful role, both as a sponsoring agency and as a supervisory agency, with auditing and fiscal responsibilities. (As presently constituted, it can be the recipient of funds, such as from the several state legislatures, foundations, state library associations, trustee associations, and other public and private sources.) Federal financial support of the New

England Interstate Library District, in terms of basic operating budget, as well as for incentive and establishment grants, for regional projects, programs and services, would have a far-reaching impact on New England library development.

In your letter, you requested that I focus on one of six topics, representing areas pertinent to national planning not yet fully explored in other hearings. If I may, I prefer to address myself to the first two topics listed; namely, national networking of libraries, and priorities of service.

National Networking of Libraries

I disagree with some of the earlier testimony which infers a downgrading of state library agencies as the result of revenue sharing and loss of LSCA funds. In Maine, for example, revenue sharing, thus far, has had no significant impact on local libraries. On the other hand, the threatened loss of LSCA funds had a very beneficial effect on the Maine State Library! The state assumed responsibility for funding those on-going programs and services which had previously been funded under LSCA. And -- on the local level -- certain demonstration projects, previously funded by LSCA categorical grants via the Maine State Library, were assumed by local government since they had demonstrated their viability.

The point that I want to emphasize, however, is that any national planning document concerned with national networking of libraries should have at its matrix the state libraries of the fifty states. Disparate as may be the state library agencies in the several states, it seems to me that they offer the best hope of coordinating the diverse interests and efforts of the academic, school, public and special libraries, consortia and systems which prevail in each state.

Moreover, when a group of states by interstate compact, as in the case of the New England Interstate Library District, agree on a regional entity, then the national network should incorporate this level of organization within its structure.

In brief, I see the basic framework of a national network of libraries to be the fifty state libraries, regional inter-state library districts as they evolve, and the Library of Congress as the national library designate.

Woven into this basic framework, by contractual arrangements and otherwise, will be the participation of the federal library system; the large urban public and private research libraries, the highly-oriented special libraries, the newly developing technological consortia, etc., all of which have a unique contribution to make toward a total delivery system of library and information services.

Priorities for Service

I do not see the problem as stated topically in your letter, i.e. "development of service to the unserved vis-a-vis those who need access to definitive or comprehensive collections." Rather, the problem lies in available resources and skills.

For example, 16 mm. films are very effective with pre-school children and with senior citizens. Yet, in Maine, just two years ago, a Governor's

Task Force which studied Maine libraries concluded that if you took all the public libraries in the state (and there are about 250 of them), you couldn't put together one decent audio-visual collection!

Let me say that, speaking as a public librarian, given assistance in resources and skills, we can identify and serve the unserved, as well as find ways and means to gain access to more comprehensive collections. Such should be the concerns of the national planning document.

Mr. CHENEVERT: Mr. Chairman, members of the Committee, I am really wearing two hats: one as chairman of the Panel of Counsellors of the New England Library Board -- the panel is a 40-member advisory group which serves the six New England State Librarians, acting as compact administrators of the New England Interstate Library District -- and the other hat is as a public librarian and as the library director of the Portland, Maine Public Library.

I have been sitting here hearing about oceans of knowledge, and I know of 60 or 70 million items in the Library of Congress, and I know there are some 85 miles or so of shelving in the British Museum, and I was interested to hear an analysis by a mathematician who estimated that simply in science, medicine and technology, in those two or three fields alone, there are some million articles yearly and that probably there are already accumulated 30 million papers or authored articles.

I sit here and reflect that up in Portland, Maine, we have 1600 periodical titles and we get about 700 current periodicals and our library is a "biggie!" We are probably one of the largest libraries in Maine. If we took all the libraries in Maine and put them together, we would be lucky if we could give you 2 million books, or separate titles. When I think of that ocean of knowledge, I feel like a trout fisherman sitting on the bank of a stream.

So how can I get Maine people access to this whole big ocean of knowledge that you people are all thinking about? It has direct application to us. I try to look at it from my own point of view and from the point of view that you have in trying to put together a national program: that one of the things

that you are concerned with is planning and design of networks and so forth.

So I submit that one of the first things you have to do is to look at planning as a continuous process of revision and that you need a dialogue. If you are going to plan something, you have to get everybody involved in the planning. Let us go back to Maine: 350 miles from top to south and 200 miles wide and less than a million people. I serve the largest city of Maine, with only 65,000 people in it! We have got to plan and design our own things, and all that you can help us with, God bless you, but you need our input, not only now but later through the New England Library Board, with six representatives from each of the New England states.

You have asked a lot today about categorical grants and revenue-sharing. It is not an either/or question to start with. Fundamentally, I am a profound believer in revenue-sharing. I would much rather "eyeball it" with my local city manager and my city council; if the federal government will send some money back to the poor property taxpayers in Portland, Maine, I would rather go to them and ask for it than go to the federal government.

I obtained a \$30,000 bookmobile with facilities for the handicapped by way of federal categorical grant through the state library. I had to stand on my head to get that \$30,000. I put my blood into it; you have to learn what kind of jargon to use, you have to second-guess those that read the proposal. For example, "disadvantaged" flows all through my report. But if you went to a model cities meeting in Portland, Maine, they would throw you out on your ear! They are not "disadvantaged"; they are "residents of the model neighborhood." There is a vast distinction, let me tell you. So there is this whole business of playing the categorical grant game. One has to go through the process, you know, and I have to write the thing according to criteria. You are sitting there in the Office of Education or in Boston or in any other place or in a state library and you read my proposal and you

have your own perceptions of the kinds of things you are looking for. If it is minorities, I am in. If it is Indians, I am in. If I can slant it to help the poor blind person, in. I have to second-guess you to get that money. I would much rather have the federal money go back to the local community, sit down with the city manager and say, "Look, Buster, here is a good program and I want the dough." I don't always get it.

• So the point is: They are both very necessary at this stage in the game.

As for revenue-sharing, in all of Maine we have been lucky if we got \$25,000. I asked for \$80,000 for my library and at the last minute got \$11,300 towards operating funds for this bookmobile. So I got the bookmobile to start with by a federal categorical grant, and then partial operating funding by way of revenue-sharing. Now it is funded through the regular city operating budget financed by the property tax. So I am very ambivalent about categorical funds vis-a-vis revenue-sharing.

Mr. Lerner and I exchanged a few words outside this meeting about school-public library cooperation. Everybody talks about the fact that it is non-existent or it is lip service and so forth, but in Maine we do all kinds of school-public library cooperation. It gets down to utilizing federal money again. In Maine, we had a Governor's Task Force to study Maine libraries, financed by U.S.C.A. funds. They said, "If you took all the public libraries in Maine (we have about 250), you could not put together one decent audio-visual collection."

If you can't lick 'em, join 'em. Where was I going to get a million dollars together? I didn't have a film and didn't have a projector.

The schools get half the money: they get half the property tax locally, and half the state budget! They had an existing audiovisual resource center, originally built with federal funds, now funded by 11 school districts and run by an advisory committee of 11 school superintendents.

We obtained a \$30,000 L.S.C.A. grant and said to the schools, "We will give you the \$30,000, if you will let the public libraries use your audiovisual collection," and they agreed to that. The point is that it was seed money, this LSCA money.

Then you will say, "Okay then, Eddie, you are making a case for a categorical grant." Well, I am, but if you realize all that went into writing that proposal -- criteria, objectives, summaries, etc. -- it would have been much simpler to go straight to the state library and say, "Look, give me \$30,000 and I know how to pull off a one-and-a-half million dollar deal." So now we loan out the films and we use them with schools, senior citizens, preschool children, emotionally disturbed children and a cerebral palsy center.

We don't own a film. What do we do? We borrow them. Besides the school audiovisual facility, the Maine State Library cooperates with New Hampshire and Vermont; they have a cooperative pool of films, a couple of thousand films. We borrow them and lend them.

So there is teamwork and school-public library cooperation, at least in Maine, and cooperation is unselfish cooperation, whether you are talking about networks or anything else. Incidentally, that \$30,000 went out some time ago. Now the public library participation in the school audiovisual facility is locally funded at eight cents per capita, and we are funding a librarian at the center and we have the use of everything free because of this school-public library cooperation.

The other thing that I want to talk about is this business of what libraries are about and the role of the new technology. How does the new technology help the Portland Public Library? Let me show you: We have two professional cataloguers and four clerk-typists. We buy about 11,000 books a year. We get a lot of our catalog cards free through a federally-financed project at the New Hampshire State Library, or else we buy them from the

Library of Congress at thirty-five cents per pack. Soon, we hope to participate in NELINET, which you all know about. In time, I hope to provide cataloging not only for small area public libraries, but also for 143 school libraries, and we could perhaps do that for eighteen cents per pack, or whatever.

I am trying to say that the new technology will relieve librarians of manual tasks -- cataloging, processing, etc. -- so that they can go out and do the kinds of things they ought to be doing. I can see the time when I will have my fifteen professional librarians and seventeen paraprofessionals spending half of their time out in the community. Computers and networks will give us access; this helps librarians and creates transmission of knowledge to decision-makers and helps community people solve their own community problems.

Ms. MOORE: I don't want to ask a question. I want to make a comment as an old professional grant writer. You are the only person that I have ever known to put it into the words that I would have liked to have said.

Ms. WU: When you shared the audio-visual collection with the schools, did you have to pay anything to the schools?

Mr. CHENEVERT: No, ma'am.

Ms. WU: It is absolutely free?

Mr. CHENEVERT: Absolutely free. We put in some money and we said, "We will throw in \$30,000 if you let us use your facilities," and they said, "Okay."

Ms. WU: What about personnel, the staff hours involved in the processing?

Mr. CHENEVERT: Actually the money we put in pays for the librarian, the public library coordinator, who is stationed at the center to coordinate our public library efforts with the school system.

LYDIA R. GOODHUE
 Chairman, Board of Library Commissioners
 Commonwealth of Massachusetts
 Boston, Massachusetts

WRITTEN TESTIMONY

I am Lydia R. Goodhue, Chairman of the Board of Library Commissioners of the Commonwealth of Massachusetts. Our 5-member lay board is appointed by the Governor. Through the State Library Agency, the Bureau of Library Extension, we are responsible for library service at the state level and for administration of federal programs in the state. As such, we provide library leadership, administer programs, and are a regulatory agency.

Appended to this statement are four documents which guide us in our assessment of problems and in our long-range planning. They are:

The Arthur D. Little Report, a study of library service in Massachusetts;

The Erwin Report, a study of school library service in Massachusetts;

In-Depth Survey of Regional Systems, a study of the three regional public library systems in Massachusetts.

Long-Range Plan. The 5-year plan formulated under LSCA.

Assets

Before stating some of our problems, as requested, I would like to say what is good about library service in this state.

1. We have many excellent libraries - not only public libraries, but a wealth of academic and special libraries. We have large numbers of professionals among our librarians who are willing to take an effective role in library leadership. And we have a high level of educated library users, including many students.
2. Our regional library systems are good and improving. Our state aid program, with its minimum standards and its funding, has been a catalyst for improvement. Presently we are instituting a policy leading to eventual free reciprocal borrowing throughout the state.
3. School library service is improving; there was, alas, plenty of room for improvement.
4. We are reaching some of the unreached - the disadvantaged, the non-English-speaking, the handicapped, the institutionalized - but our successes are tantalizing because there is so much more to be done.
5. We are part of New England, an area which is already used to thinking in regional terms.

Problems

At the moment we are unsettled because of uncertainty as to our position in state government and because of the collapse of federal library funding. However, a year ago we anticipated both of these problems and filed legislation to improve the state library agency's position and also legislation to seek state funds in all areas funded federally in the recent past.

For the purposes of this hearing, the Board of Library Commissioners wishes to concentrate on the following problems and areas which provide opportunities for the future.

School Libraries

We would like to see a national policy to reinforce what is now in the schools in the way of library service. People conceive of schools as being supported entirely by local taxes and yet this is not working. There is not the local impetus and capability to deal with some things such as special education, reading disabilities, and library or media service. We would further like to see reinforcement of the idea that both public and school libraries are needed and that they must cooperate.

Federal Funding

We concede that states should do more in the way of library support. Nevertheless enormous strides have been made under federal funding and this progress could continue and be evaluated and shared if federal funding were at all dependable. As it is now, it is not possible to do any long-range planning. With a few notable exceptions, revenue sharing money simply has not gone to libraries. We have not successfully competed with the needs of public safety, sewers, etc.

Federal Planning

Regarding the National Commission's planning function, we would want to be assured that it is an effective part of the Executive branch and that the national leadership really listens to its findings. It is disheartening when the President impounds library funds, appropriated after intensive support of library enthusiasts from across the country. We hope that in the future the executive will at least listen to its own planning arm. Thus we hope that your planning will include a liberal dose of support of funded programs.

Regional Approach

Federal solutions are not always appropriate but, even where the solutions are regional, the federal level could encourage regional planning between states. You will no doubt have heard from the New England Compact and from NELINET. Our outreach leadership training programs have been exciting. We have a New England professional library organization. Perhaps the National Commission could encourage more in this line - something in the library field which is akin to the New England River Basins Commission in the water resources field.

Interlibrary Cooperation

Our most intriguing problem (and opportunity) lies in the area of coopera-

tion between libraries of all kinds. Ours is a comprehensive regional library system, but we could include more of other types of libraries. As our Arthur D. Little Study indicates, there are rich library resources in this state, but they are not cooperating. In part this is due to the lack of incentive, of funding. LSCA Title 111 funding for this is small indeed. But even in this area of networking there are hopeful signs. The Hampshire Interlibrary Cooperative is an established resource and the Worcester Consortium has made a fine beginning.

Spreading the Word

I should like to close by saying a word about the need to go into the new technologies. Certainly we need to plug library service into these exciting new techniques. The more sophisticated library users, indeed, will demand that we do so. But there is still a great deal of work to be done with the unsophisticated user and the potential user. Many people simply do not know enough to ask for the excellent present-day library service which is available right now to them. So, while we are concerned (as we are) with new techniques and fields, I believe we could all of us do a great deal more about telling people about the full range of library service which is presently offered.

Ms. GOODHUE: I promised in our statement to deliver four documents to you, which I will now do. In addition to that, because of the evidence, I should summarize what they are. They are our library planning study in Massachusetts, the state-aided regional public library system evaluation, the Massachusetts long-range program, and the plan for the development of state educational media services to local schools.

Now, in addition to that, I have discovered that you have an interest in revenue-sharing, so I am also adding a summary of revenue-sharing in Massachusetts and how the libraries have fared. I will leave that with you because that is a specific list of all the libraries that got revenue-sharing and whatever expense was involved.

However, I do want to say, just for the general information of everybody, that 75 Massachusetts public libraries received a total of about \$2.7 million in local revenue-sharing funds; roughly \$700,000 of this was for capital expenses, while \$2 million went for operating expenses.

And the kicker is this: We do not know how much of this money went for additional library service. Most libraries were able to report that their

receipt of revenue-sharing funds was just a kind of bookkeeping fact, that the town simply used the money for its regular budget items somewhere. This would also be a part of what I am giving you.

The last is simply a listing of the LSCA special projects of last year and the year before with an evaluation, as some of them have already been alluded to. I know you have questioned Secretary Cronin about these; we think they are fascinating, and I hope you do, too.

So there is possibly more than you would care to know about Massachusetts library projects.

Mr. LORENZ: You mentioned your uncertainty about your position in state government. What is this likely to be resolved into? Is this still pending, this decision?

Ms. GOODHUE: Yes, it is still pending. The reorganization plan which Secretary Cronin has sponsored is in the hands of the Recess Committee and will go to the next state legislature. We had long felt that the state library agency should have a highly visible position in the state government. So that is what we are seeking. At the moment it is a question of negotiating with him and with the legislature as to exactly what the nature of that would be. But I don't think it is going to be less visible. I think our trend is certainly toward a more and more important level.

Ms. MOORE: Are you now an independent agency or are you with the Department of Education?

Ms. GOODHUE: We are with the Department of Education. We were an independent agency. In fact, we were the first one in the nation. When there was a general reorganization in the state government, it was decided there would be only twenty departments, and so we were put in with the Department of Education.

Ms. SCOTT: You touched on the Arthur D. Little study. Can you further

explain why the libraries are not cooperating? You just mentioned in part that it was due to the incentives toward funding. Are there any other reasons given in the study?

Ms. GOODHUE: Yes. Well, I think that some of the professional reasons have been given today, and as a lay person I will take their word for that -- that in fact there are some librarians who just are not as cooperation-conscious as others, nor are there users that demand it in some cases. But I think, generally speaking, we have gone under the assumption that if the people are asked to share their resources, they should be given some reason to do so and it should not actually hurt their own financial picture.

Mr. LORENZ: As I understand it, both public and school libraries are under the jurisdiction of your commission; is that correct?

Ms. GOODHUE: Yes. As a matter of fact, it is not just those. We are not by any means a public, in-school library agency. Our concern is with all kinds of libraries. We, for example, have been dealing, as you know, through the federal program with county institutional and state institutional libraries and all networking, which involves special libraries, too.

Mr. LORENZ: Have you tried using your state aid for public and school libraries to provide an incentive for public school library cooperation?

Ms. GOODHUE: Yes, we have, and speaking of the state aid, we have put before the legislature, and it is still there, a bill calling for more funding for some of these other programs. At the moment the state funding is almost entirely for public library service.

Mr. LORENZ: What has your success been in getting public and school library cooperation through state-funded centers?

Ms. GOODHUE: We could certainly use more public and school library cooperation. One of the things which I said in the prepared remarks is that we really do think that we could use some help with the school library area.

We don't see the urge for reform or even for cooperation emerging from the local leadership, either the local school library leadership or the school committee leadership. In many instances we have discovered, for example, in service to people needing special education, that they have to be urged by some other means, such as state or federal funds.

Mr. LERNER: I would also like to ask you another question about funding of libraries. In your testimony you say in regard to school libraries that people conceive of schools as being supported entirely by local taxes, and yet this is not working. It is true, in fact, in most states that libraries are also supported by mainly local property taxes.

Ms. GOODHUE: That is true here.

Mr. LERNER: And, in fact, that is not working. Now, what are the alternatives?

Ms. GOODHUE: I think what I meant is that if the local funding is the predominant source of funding and then the local people were the predominant source of, say, change or improvement, all right, fine, that would be okay, but in this instance it does not seem to be working. I think that my answer to your question is that we have been able to accomplish things with the federal money in the way of leadership.

Mr. LERNER: Well, what I am really getting at is something more than that, but there are obviously federal funds that are coming into library programs. What I am really getting at is: Should in fact libraries be financed on a different basis? Let us say there has been some discussion of schools no longer being tied to the local property tax but rather on a broader level. Would libraries be helped by that situation or not?

Ms. GOODHUE: I think that more and more we have been turning to other modes, which is the word that I picked up today. For example, in the regional systems and with the state minimum standards and with perhaps the networking

at a local level, such as in Worcester and in our Hampshire interlibrary, which is not just one city but is several communities.

So that I would say that where the money is, is where the power is to effect a change. So it depends upon where you want to effect the change, and I guess what we were saying is simply that the catalyst for effecting change has not been emerging from the localities in many cases.

Ms. WU: From the revenue-sharing funds, did you allocate any amount to the school libraries? You said it was 2.7 million?

Ms. GOODHUE: Yes. The details of this report refer to the public library funds.

Ms. WU: You did cover the school libraries?

Ms. GOODHUE: Well, this would only be public libraries. We have a peculiar situation in Massachusetts, and I don't know if it applies to other states, and that is, that our school committees have fiscal autonomy, which means that they can set their budget and have their say within certain limits.

JANICE GALLINGER
 Librarian, Plymouth State College
 Plymouth, New Hampshire

WRITTEN TESTIMONY

This letter responds to your invitation to submit testimony to the National Commission on Libraries and Information Science prior to its New England regional hearing on 3 October 1973.

I spoke to Mr. Roderick Swartz during his visit to the New England Library Association conference last October; and since that time, my thoughts have not changed to any great degree concerning the importance of networks and various priorities facing libraries which might be solved at the federal level.

1. The network concept is undoubtedly an aspect which deserves the tremendous attention it has been receiving. However, there are problems facing smaller libraries which must be dealt with if they are to interact in the networks. If we truly believe in the concept of providing every citizen, no matter where he may reside, with equal access to needed information, then it is of the utmost importance that participation in networks be made possible in remote areas. The immediate problem is the ability to buy this service in communi-

ties which can barely support even less than minimally acceptable standards of library service. This applies also to small academic libraries in remote areas whose students cannot receive the full benefit of the education to which they are entitled without the same access to information as a student in a large urban university center. It seems to me that the responsibility of the federal government is clearly to make it financially possible for networks to be brought to the remote areas despite the fact that fewer numbers of the population are served in this way but because of the fact that their need for a substitute to local access to resources is overriding. The federal government should participate financially to a much greater extent than it has to date in supporting development of the networks if we truly expect them to become functional to the extent which we believe is technically possible. I do not believe it is possible to provide sufficient funding from private or local governmental sources; and until the federal government legislates and finances network programs, they will continue to be merely an idea which becomes real only to a very small number of people.

2. The federal government should financially support the development of computerized systems for using the data supplied on MARC tapes. OCLC has done a remarkably fine job in developing the technology to use the data supplied to it. However, the cost continues to increase while at the same time income to libraries decreases and cost of materials increases. I believe it is improper to continue to rely on the support of private foundations only but that the federal government should fund those programs which now give evidence of promise of success. We have been waiting a very long time for the full benefits of computerization to reach libraries and without sufficient financial support, which can only be provided by the federal government, programs can only continue at a slow pace and at greater long-term cost. It is my suggestion that OCLC enter into a contractual arrangement with the federal government to carry on its work; perhaps with greater funding it could move more quickly so that benefits could be realized at an earlier date. This library is an example of one which was participating at NELINET as an introductory member with the intention of continuing on a full-time regular basis until NELINET's arrangements with OCLC introduced such rapid and large cost increases that we were unable to make the financial commitment. We need very much to have the service in house instead of 100 miles away as we now "sponge" through the University of New Hampshire. However, we simply cannot absorb the cost factors as they now exist for it means not less but more staff in addition to the terminal fees, line charges, etc.

3. The old cry concerning the backlog cataloguing at the Library of Congress and the cataloguing priorities, time lags, etc., cannot be omitted from this testimony. As an academic library firmly committed to non-print as well as print sources of information, it is just as vital, if not more so, that all materials be promptly catalogued and processed and made available for public use. We have grown to rely on the Library of Congress cataloguing for print materials. We see no reason to add greater costs of processing for non-print materials because of Library of Congress' priorities. I shall not debate where the problem lies because I do not know, but I do believe it is not an insurmountable problem and that given proper direction and financial support non-print materials can be promptly and correctly catalogued with data provided for users in all kinds of libraries in the country. We contradict the very things we talk about when we urge libraries to provide non-print and then put the cataloguing obstacle before them. Why should noncommitted people open their arms and shelves to cataloguing problems and try to promote

user's interest in materials which they find hard to make bibliographically available to them? They should not. I believe this is a very serious responsibility of the Library of Congress cataloging service. If not the Library of Congress, then the Commission should establish another federal cataloging unit which will provide the service.

4. I have just read the testimony presented by Edmon Low on August 1 before the Senate Subcommittee on Patents, Trademarks, and Copyrights. It seems extremely shortsighted that at the same time the American Library Association endorses the philosophy of The Fourth Revolution in its testimony it shows concern only for copying of print materials. As a library serving an academic institution trying to make full use of all information sources and to encourage the use of them by faculty and students, the problem continually faces us of legitimate copying of filmed and recorded materials. The publishers are uncertain and the users more so. We recognize the need of the publishers to operate profitably, but we also recognize the need for reasonable provision for copying when sales are not reduced as a result but which in fact will result in additional sales long term. It is my feeling that the Commission should address itself to this problem in its fullest range of implications for libraries and see that library interests are not restricted to print materials only. In-house use, interlibrary loan, cable television are but three of the most common areas where copyright of non-print materials puts restrictions on use in the library world.

5. Lastly, I would hope that the Commission would do all possible to promote full implementation of the ideas presented in The Fourth Revolution which I know need not be repeated here. These concepts are not limited to academic use only, but there must be spill-over up and down the line.

As I review the six points you specifically invited comment on, I am unsure if the comments above are specific enough for your purpose. It seems to me that in every area the crux of the matter is funding. I believe sufficient suggestions have been made by a great many people as to means and methods, the literature is full of this; but none of it can be a reality unless there is money to make it so. This to me is the Commission's primary challenge.

Chairman BURKHARDT: Would you like to amplify the written remarks that you sent in to us?

Ms. GALLINGER: I have a few things that I would like to add. Last night I read the draft which you sent to us. Of course, I did not have terribly much time to ponder about it since it only came yesterday afternoon.

One of the thoughts that kept recurring to me as I was reading it was the human element involved. Because I reside in a northeastern rural area, I think I am probably more conscious of this than people in the urban areas.

What is the basis of the Commission's thinking, and what effort does the

Commission anticipate could be made to orient users in remote areas to take advantage of the possibilities envisioned in the draft, assuming there are terminals or centers for assistance within a 25-mile radius of their homes? I think this is a very real question. It does no good to have the technology if it's not physically accessible to the people. I don't know what thought the Commission has given to this for I see nothing of it in the report, which is why I raise the question.

Because I just read the report of the Commission on Non-traditional Study, Diversity by Design, and strongly affirm some proposals presented in the Carnegie Commission on Higher Education's report, The Fourth Revolution, I also thought as I read the draft that somehow there should be some consideration for overlap between computer centers and technology centers designed to serve education and those designed to serve libraries. The purposes of educational institutions and of libraries overlap tremendously, particularly as libraries expand more into providing continuing education products and public libraries are used as continuing education centers. The same bibliographic control source, or data base, for such packages might be used by both kinds of institutions.

This leads into the cataloguing problem of non-print materials which will form a great part of larger learning packages. I would like to expand on what I wrote in my testimony on this. For about five years the Plymouth State College Library has been attempting, with some degree of success, I think, to promote in a college setting the use of non-print materials as well as printed ones. We have recently become very discouraged because of the lack of availability of catalog copy with the result that an enormous amount of in-house original cataloguing must be done, for the material is simply no good to anybody if it does not appear in the catalog. There is no reason that it should not be as completely and equally available to all the users

as are books.

Presently, we have set aside other work in order to get some of these non-print materials out onto the shelves in response to complaints from faculty for materials that we have owned for about a year. You may say, "Well, she has a poor cataloguing department." This may well be true. On the other hand, in most cases, except for cassettes, catalog copy for the materials has appeared in the National Union Catalog, cards have been ordered from the Library of Congress, but we cannot get them! If you have ever listened to a cassette tape in order to learn its contents, you know this is very time-consuming. It is also very costly in terms of staff time, but it is the only way the cassette can be catalogued; you can only know what it says by listening to it. I think these are the primary points with which I would amplify my written testimony.

Mr. DUNLAP: In your testimony you stated that you were participating in NELINET and have become an affiliate of OCLC, at which time you were obliged to stop participating in NELINET because of expanding costs. One would expect almost the contrary to happen.

Ms. GALLINGER: I think perhaps our situation is not the ordinary one. Since 1968, we have purchased cataloguing service from the University of New Hampshire through a cooperative cataloguing unit at approximately \$2.50 per volume. This means that we have a relatively small catalog department and we have no staff to turn over to terminal maintenance because the existing staff is supervisory or particularly concerned with items for which cataloguing cannot be obtained from OCLC through computer access. In order to participate, we would have to add persons, in addition to the fact that I think -- and I don't have my figures absolutely 100 percent sure -- it was going to cost in January of 1972 approximately \$6,000; and by April, when we met at Dartmouth, it had gone up to about \$14,000. With the State of New

Hampshire's and our internal budget situation as it is, I simply could not make any kind of three-year commitment, which is what we were being asked to do, which might have to bear an equal jump in cost in a very short period and possibly more over the three years.

Mr. STEVENS: What should be the Commission's stand on copyright for non-print materials and how do you feel that the Commission ought to interpose itself in this heated debate in which there seems to be no middle ground for anyone who wants to retain his sanity?

Ms. GALLINGER: I think one of the current questions is whether the Commission should become a national agency or not. I think it should and as such that it should represent the point of view of all kinds of library use.

I don't think we can hide under the fair-use concept in the educational community, which schools have been attempting to do, but I do think that if the library world is to be represented by this Commission, then all kinds of materials that are suitable for use in libraries should be of concern to it. I think to limit its concern only to copying pages from periodicals or books is a very short-sighted approach.

For instance, assume we do have cassettes catalogued, assume that each member of a consortium owns a thousand cassettes and that these are shared by copying among the ten members of the consortium. Never will they each buy 10,000 cassettes so this is never going to affect the profit of the producer. There will also be replacements. Cassettes are only one thing.

There are films, film strips, and sound film strips, which are easily reproduced in video-tape format which could be broadcast perhaps within the library community. This is now something which cannot be done. I have just been through this with several producers and they are very adamant about it. Perhaps I should have been wiser and not asked, but we were trying to get answers. I think this is a particular service the Commission could provide.

because as public libraries assume educational responsibilities, this is the kind of thing they might do via CCTV but are now restricted. I think these are terribly important concerns, and I think there must be written into the legislation those things which are legitimate and which do not interfere with profit.

I don't know whether that answers the questions of what you can do except to make recommendations and testify, I suppose, be concerned.

Chairman BURKHARDT: You have made the case which has been made by the library community, but there is, as you may know, an opposite view. The very thing is, does it interfere with profit, and for that, where is the evidence, one way or the other?

Ms. GALLINGER: All right. I can only speak from my own experience. I would much rather buy twenty-five different packages than to buy twenty-five duplicates of the same package, if I have the technology in-house to duplicate the one, so I think that by having the opportunity to duplicate, in fact, my money would be spent to encourage additional production.

RICHARD S. HULEATT
 Manager, Technical Information Center
 Stone & Webster Engineering Corporation
 Boston, Massachusetts

WRITTEN TESTIMONY

The development of special libraries and information centers employed by business and industry closely parallel the emergence of American science, technology and business methods in this century.

It becomes exceedingly less feasible for the scientist, engineer or businessman to be able to sit at his home workshop or office in the manner of his earlier American predecessor to invent or market a better mousetrap.

The difference in this evolution is the necessity for information both timely and readily accessible.

Previous criteria used in identifying a special library or information center has been solely by its special subject collection. While this still

holds true, because of the parent organization's interests, the prime recognition is that these have been established and are associated with rapid identification and access to information resources outside the organization's library or information center as well. Everyday demands on such a special library require swift response, often, immediate or within 24 hours.

Early in the history of this century, the Stone & Webster Library participated in development of the Special Libraries Association's activity, then known as "Networks for Knowledge". It was particularly apparent then, and today even more so, that individual libraries could never hope (or wish) to amass complete holdings on a particular subject area. The early interlibrary cooperation or networking of libraries was developed during this early period with this emphasis in mind, as well as attempting not to duplicate each others' efforts.

Today we have what is often referred to as the "information explosion". The proliferation of published literature, while staggering the imagination, is further compounded as to its identity and accessibility by the same proliferation in abstracting/indexing services, parochialism by subject-strengths, mission-oriented indexing and services, and announcement services and sales, of which the Federal Government is the largest single producer, user and abuser.

The initial impetus for the bulk of research literature, undoubtedly begun during World War II, has continued since that time under funding by various Federal and defense programs. The Federal Government has been the largest sponsor and publisher (either direct or indirect) of literature of all kinds ever before in the history of man, yet has failed to provide effective leadership in solutions to order out of chaos, instead creating new information centers, publication sales offices, new agencies instead of correcting old ones and generally adding to the confusion. Even under the Freedom of Information Act, unless the material has been properly identified, it is not readily accessible to the general public.

Clearly what is needed is a new approach to future needs with regard to a national information policy, and one to which the Commission has a direct responsibility and duty which affects every American citizen.

In this area, I specifically note the present inadequacy to announce publicly, all relevant information contained or sponsored by the Federal Government which affects the design, development, and construction of facilities and systems which ultimately affect each and every American, whether it be in the fields of public safety, health, engineering design, education, transportation or just our "pursuit of happiness". The withholding of such relevant information or the lack of properly announcing it at the time (whether intentional or not) created a devastating effect in later years when this information becomes known as a result of hearings, news-media or litigation. The public right-to-know includes not just the individual citizen but appropriately to libraries as well, who have a moral obligation to fulfill in order to serve their clientele as effectively as possible.

None of the prior efforts by both the Congress and other investigatory committees over the past decade attacking these information problems have resulted in any significant changes to date. Whether it has been Interagency Coordination of Information under then Sen. Humphrey, The Weinberg Report,

Scientific and Technical Communication (NAS), or many others, few if any sought a general sweeping overall national information planning policy. For the most part the work of all these committees combined has been largely ignored. I would foresee the same pitfall for NCLIS unless the problem is met head-on, rather than attempt to nip at its heels, if a solution is to be made within our own lifetime. And unless the total goal is politically oriented as well as being logically correct, no Congress will consider or support such legislation.

Further development of present and proposed library and information programs and systems supported by the Federal Government and its agencies should be re-reviewed in light of an overall national information planning policy.

Recommendations

1. Establish a National Information Center, under which would be administered:
 - a. Library of Congress
 - b. National Library of Medicine
 - c. National Agricultural Library
 - d. All other federal agencies and information analysis centers

The major purpose of this change, which would require new legislation, would be to eliminate needless duplication of effort, provide standardization in the library and information field, consolidate Federal Government holdings, provide common access points to Federal information, provide publication of comprehensive subject oriented rather than mission-oriented abstracting/indexing and announcement services and provide effective leadership in the library and information fields through sponsorship, participation, and educational roles. The annual savings in eliminating duplicate services alone would be in the millions of dollars.

2. Establish Regional Information Centers as satellite operations to meet local regional and state needs, but utilizing the NIC on a network basis.
3. Provide Federal funding for libraries and information centers (public, academic, and special) willing to share their resources with the NIC on a network basis to avoid needless duplication of holdings or services. (Funding for this purpose would be on a reimbursable basis for services or contributions rendered, rather than as a subsidy of any type.)
4. Provide development, expansion of the necessary data bases of all Federal agencies and information services under one compatible system to which subscriber data terminal service could be obtained on a "call-up" service basis (i.e. charged as used). (This is presently available in the private sector.)

(Citation and availability data would be minimum objectives - abstract data desirable but not immediately essential. Document retrieval via data terminal service is still too early in development to justify cost.)

5. Initiate legislation (with Federal funding) to encourage all 50 states to develop similar state information centers under model administration proposed for NIC.

Present administrative practices with regard to adequate access and availability of state-held information does not presently exist consistently on a state-by-state basis. A matching funds program in this sector could have many beneficial results.

6. Initiate legislation (with Federal funding) encouraging local communities to develop adequate information service to their citizens through the public libraries and to provide for national minimum standards by law for public libraries rather than by voluntary standards as at present in order to receive funding on a matching basis.
7. Promote legislation which would encourage individual citizens, schools, libraries, businesses, and industry to utilize developing Cable TV networks as a means of gaining access to local, state and national information services on a chargeable basis and to promote development and standardization in this field.
8. Sponsor and/or fund educational programs in colleges and universities in all facets of library and information services.
9. Provide initial funding for development of new abstracting/indexing services which eliminate present duplication or inadequacies, and which would be self-supporting.
10. Provide the NIC, the necessary authority as a separate national agency to plan, develop and administer a national information policy. (The existing NCLIS already established could become the federal agency responsible.)

Summary

All libraries share in common many of the same basic problems such as space, equipment, personnel, and funding formulas. But never will they succeed at the present rate if they continue to duplicate rather than share information resources, or insist on independent processes and techniques when it has been performed elsewhere previously. Parochialism in a majority of libraries is evident as a dividing factor contributing to inaccessibility of information and knowledge.

NCLIS is our hope for that role in leadership which is sorely needed at this time.

Thank you for your invitation.

Mr. HULEATT: I am technical information manager for Stone & Webster Engineering Corporation. I am in charge of their library, which is one of the oldest special business libraries in the City of Boston, and certainly

one of the most active special libraries in Boston today.

Chairman BURKHARDT: Good. Now, you submitted testimony which we have all read, but perhaps you would like to enlarge on it or say something about it. I believe you received that draft statement of ours.

Mr. HULEATT: I would be delighted. First of all, I want to congratulate the Commission on what I feel is a step in the right direction about your proposal toward a national program, and I was very pleased to note the many similarities between my testimony and the program. It is long overdue. I think what has happened over the period of years and in a de-facto situation, is that we have created a Tower of Babel. I would visualize the system that we have today as sort of an old inner tube with hundreds of patches on it and the air still leaking out.

Certainly, one of the points that you made in your proposed program was utilization of the federal telecommunications system, which I must admit I did not think of, but I think is a tremendous idea. One of the things that faces us -- whether it is on a personal basis or in the field of business or industry -- is that every decision that is made is very much dependent upon the information that we have on hand. The lack of that information can create liabilities for us. I have some incidents particularly in mind, which I am sure that you have read about in the newspapers, when Mr. Nader was in Pennsylvania at the State Department of Insurance regarding the safety of nuclear power plants. I think you also read last year of a dam disaster in West Virginia which had to do with the construction of a dam built many years ago. We need complete information whenever we are going to undertake any task. It may mean that if we don't have that information, we are going to head in the wrong direction or it is something that ultimately we -- and I say that "we" collectively in terms of the American public -- are going to pay for.

The public is not concerned with our methodology. They are concerned with relevant answers and the speed with which we obtain those answers.

I entered this field more than fifteen years ago as a dissatisfied user because I felt that there was a better way that information could be obtained, and I feel that the Commission has that objective in mind as well. There has to be a better way to do it.

Now, certainly the biggest collector and collection of information, whether it be in libraries or information centers -- and let us face it, those two terms, "information centers" and "libraries" are hopelessly intertwined -- must be the federal government. It is recognized that, whether we want to call them national libraries or information centers or information analysis centers or federal agencies, presently it is a hodge-podge, whether they are mission oriented, or created under various public laws. There has to be some sense of direction in which we have to go.

Previous legislation has to be superseded by one public law, in my opinion, hopefully with the creation of a national information center. A national information agency is needed which would initiate, what I would term, a national information policy. This would have to be its own agency; it cannot be a weak sister to any of the existing agencies because there are so many vested interests, so many precedents established that would impede a real program.

I think that in the package that you have presented under this program you have considered nearly all of these. Of course, it has to be elaborated. There have to be specifics, but it has to be a logical conclusion, as I have stated in my written testimony, in order to gain any kind of Congressional support.

One thing that is very much "in" today, of course, is saving money; and the first thing that this program would do would be to save millions of

dollars. It is evident, and it is logical, that there has to be a natural order of progress, beginning with the federal government and then relating to state governments, and from there on to local communities. The federal government has to serve as a model for what will take place, and what the Commission is doing and will probably undertake, is to take the best of those systems, which may be presently existing, perhaps modify them and merge them into a cohesive program which would be applicable to all types of libraries and information centers, whether they be public, academic, special, school or whatever.

I see this as a general view. The special library, particularly, gets involved with all types of libraries. Sometimes we are called parasitic because we have a rather small collection, but we do get involved with federal agencies and we do get involved with public libraries and we are aware of their problems. It is very inconsistent from coast to coast.

Each day I telephone nationwide and probably contact twenty states in the course of each day by telephone to obtain information, not to mention other international sources that we draw from. In the business world one of the things which we must be presently aware of is the growing technology and advances from Europe and Japan. These people, particularly the Japanese, are quite aware of what information can do for them.

I really believe that if we don't take action within the next two years, we are simply going to be just literally edged out of the market. It is not just in business interests, you might say, but information in general. It covers all of the fields of knowledge, whether it be science, industry, or education, because libraries and information centers cover all of man's knowledge. That is quite a responsibility.

Chairman BURKHARDT: With this national information center that you speak of, or agency, you say it should have authority over the Library of Congress,

the National Agricultural Library and so forth. Would that involve transferring the Library of Congress from the legislative to the executive branch or not? Have you considered that problem?

Mr. HULEATT: It has to be something under a new public law which will not give any one of the three major segments of government a vested interest in it. I know that would be a rather difficult thing to do, but I think it has to be, to serve all three major areas of government.

Ms. SCOTT: Well, we could hardly expect Congressional approval for that measure, to put the Library of Congress under another agency or center.

Mr. HULEATT: Certainly Congress is going to be aware that there are inherent dangers in what I term a national information center from the point of suppression of information. Today I would say that Congress would be wary in putting all, literally all, of our eggs in one basket. If the responsibility is shared, this is a possibility, but certainly it should not be vested in any one single element of government.

Mr. CUADRA: I was impressed by your understanding of the scientific and military information system of our country. For two days I had the chore of explaining our system to an official delegation from the Soviet Union and they found some parts of our scientific and intelligence information system totally incomprehensible. And when we think about theirs, one of the things they thought incomprehensible was the role of free enterprise. I have a question about one of your suggestions, about the provision of data base services as one of the functions of this agency.

You recognize that there are a number of private companies already doing this. What would be the mechanism for transition, if there is one, from something that is now being done privately to something that, I gather, you would propose be done in public?

Mr. HULEATT: Well, when I say publicly, I mean on a cost basis. What

Mr. Canham was talking about was hidden fees, and we do pay for everything. Every system as proposed has to be on a pay-as-you-go basis. I don't believe in a 100 percent subsidy. You mentioned a program or a subsidy to get things started, but certainly the commercial services which are available are using the existing data bases -- you will recognize that when we started back in 1963 and the other agencies in 1966 and 1967, the usage went up. What about all the knowledge beforehand? What about all the agencies that have information that may not be on a data base? One of the areas that I am quite aware of that has neither been abstracted nor indexed or announced is the tremendous amount and bulk of information that the Atomic Energy Commission has on file. And unless you know that the information is there, you might just as well forget about it.

In data bases, one of the most time-consuming things that we get involved with is the search of relevant information for a particular project or a particular effort. The use of a data terminal would let us search that information in a much shorter period of time. It would also allow us the capability of a printout, that is, a hard copy which we can take with us, one which we can keep so that we don't have to keep calling into the data center for the information. But the data bases that are available presently do not even begin to encompass all the information that is available within the federal government.

Mr. CUADRA: Let me pursue this just one bit. If there is a data base that has already been made available through a commercial organization and they have invested in doing this, what would you do about that? Are you recommending that the federal government, in effect, go into competition with the private enterprise?

Mr. HULEATT: No. I mentioned a few minutes earlier that one of the things that I would assume the Commission would do is to pick and choose the

best of each. This would mean if there were already existing programs in the private sector utilizing the government data bases, and it could be proven that industry could produce this more efficiently than the federal government going into that particular business, yes, I say that the private sector should do this. You would have to do it on a cost-comparison basis. It is not just going to be in this particular area of data bases or services, since you got into this before on micro-publishing. You are getting into this in a number of government services in which private industry is producing information which is essentially federal information, and I would assume that this Commission would pick and choose on an evaluation basis which of those is least costly and most efficient.

Mr. AINES: A few years ago we ran what we called a national engineering information and data symposium in Washington involving all of the major groups concerned with engineering information. We, too, defined them both in terms of the industrial sense and the information community that supported it.

I can recollect that during that conference strong comments were made that engineers did not necessarily want to partake of the kind of data banks that the federal agencies were providing. Much to-do was made about the fact that information among engineers as reflected in the Rosenbloom Studies flowed from word to word, from mouth to mouth, if you will, and this indicated to us at that time that most of the engineering community was not really concerned as sharply as you are about federal sources of information. Has anything changed since that time?

Mr. HULEATT: I think the phrase used at that time was "technological gatekeepers," -- am I correct? And, yes, things have changed. You now have Atomic Energy Commission regulations. You now have Environmental Protection Agency regulations. You have Occupation, Safety and Health Act regulations.

We alone are spending 600 percent more than we were five years ago for in-

formation, and the end is not in sight.

All of a sudden firms that never were really concerned with environmental or public safety to the extent that they are today are only doing so, or have been "stimulated" to do so; let us put it that way. They had the responsibility before now, but they have been given some sense of direction. This is not a criticism of the industry; this is just a fact of life.

I think the word "ecology" means something more to us today than it did ten years ago. We happen to have more knowledge. Engineers are much more concerned today with what they design and build than they have ever been before.

Mr. AINES: Let me ask the last half of that question, if I might. The federal agencies pride themselves on the announcement and dissemination of their technical reports that they turn out through the National Technical Information Service; space, defense, documentation center, AEC -- they all have elaborate programs. Now, from what I read in your document, you are stating in effect that these are not successful systems.

Mr. HULEATT: I would not say that they are not successful systems. I am just saying that they are widely separated and incomplete. I would say that NTIS particularly is probably the agency to which I would funnel most of the future programs in terms of distribution and announcements of information. I would say it is probably one, in my opinion, of the better run agencies, one of the better run services that I see today in terms of announcements, in terms of distribution, in terms of organization, but NTIS does not get everything. What about GPO? What about the other federal agencies? What about the USGS? There is a tremendous amount of material in the distribution business of federal information and they are all doing it different ways, and NTIS is left way out in the field. They (NTIS) are not getting the responsibility to handle it and all that we are doing is patching

up a system and not creating something new. I mean in terms of our creating something with a single-mindedness of purpose.

Sure, these are improvements on existing things, but is it really that much of an improvement? NTIS is just a piece of it, yet it is frustrating to know where the information is, and yet it is not available for that agency. In fact, just two weeks ago I had to go to Rome to get a U.S. fisheries bulletin, which is rather ridiculous.

Chairman BURKHARDT: Well, thank you, Mr. Huleatt. We must move on, but I want to encourage you to send us your reactions and criticisms of that draft that you were talking about.

ELEONORA P. HARMAN
 School Library/Media Consultant
 Department of Education, State of Vermont
 Montpelier, Vermont

WRITTEN TESTIMONY

Here in Vermont the priorities for services are in the elementary schools. The greatest dearth of materials and services exist in those schools, which should have top priority. We need to do a lot of work with the parents of these little ones so that they, the parents, will see the necessity of supporting good local library/media programs in their schools.

We also have to work with the State legislators, and this is one area in which the Department of Education could and should work closely with the Department of Libraries.

Vermont's entire population is less than that of Newark, N. J., and is spread over an area of 9,000 square miles. This means that there is much territory between some of the small communities. Many of these communities are trying to maintain their own schools and public libraries, which, in turn, means that services from the Department of Education and the Department of Libraries are constantly on the move. We are trying to combine some resources and efforts of individuals in reaching these patrons, but limited funds make the work more difficult.

Several of the larger city public libraries and some of the university libraries have teletype services, which make interlibrary loans easier and more accessible. We are encouraging the small public and school libraries to make more use of such services in order to provide better local services. Federal funds have done much to assist these programs.

Chairman BURKHARDT: I would like to next call on Mrs. Eleanora P. Harman, the school library media consultant in the Department of Education in Montpelier, Vermont.

Mrs. Harman, how nice to have you with us. Did you want to comment further on the paper that you sent us or comment on that draft proposal?

Mrs. HARMAN: Thank you very much, Mr. Chairman. I did not receive your draft, unfortunately; I got it just a few minutes ago when I came in, so I have not had a chance to read it.

Chairman BURKHARDT: When you read it, please write to us about it, will you?

Mrs. HARMAN: Yes, sir, I certainly will. My chief work is with school children and when I hear people speaking in these great awesome terms of world trade and complicated electronic information exchange and retrieval systems, I sometimes wonder where the little kids are going to fit in.

Vermont is a state of some 9,000 square miles and the total population is 400,000. The greatest need for library services is in the elementary schools. We try to encourage the cooperation of the public and school libraries. This is helping out, but we still are in tremendous need.

As one who is deeply involved in the education of our youth and working with higher education and continuing education, I am most concerned that youngsters learn how to learn, so that when they finish their formal schooling they will be able to continue to learn, and I am not sure how we can give them these skills if we cannot provide good, total library services.

I can also see that possibly some network systems might help down in the pre-school level as a kind of preventive-medicine-type work.

I also agree with Arlene Hope, that if we are going to have a system, a national or a federal system, a great big job of education will be ahead of you people, all of us, in order to educate the public about this system. I

work with too many people who are still afraid to thread a 16-millimeter projector.

Mr. BECKER: When you speak of the deficiencies at the elementary school level, can you amplify that a little bit?

Mrs. HARMAN: Yes, I can. There are 353 elementary schools in Vermont, of which 72 percent have inadequate book collections, 93 percent have inadequate space, 79 percent have inadequate audio-visual collections and 95 percent do not have qualified librarians.

Mr. AINES: In your statement, what would you say is the number of hours that children watch television?

Mrs. HARMAN: I am sorry, I could not possibly make a guess on that. I have not seen any statistics and I would hesitate to say.

Mr. LORENZ: Do you know of any research done on why some children who read at an early age become life-long readers and other children drop out after they leave school? Do you have any insights on this problem?

Mrs. HARMAN: About the only thing I can say is that an awful lot depends on the individual youngsters. I look at my own two young people. We treated them pretty much the same -- read to them, had books and periodicals all over the house -- and one is a much greater reader than the other. So I cannot say that it is all parental influence, I cannot say it is all school influence. I think it is a combination of things. I am sorry, I don't mean to dodge the question.

Mr. LORENZ: No. It is a very difficult question.

Mr. BECKER: We just lived through a decade of federal aid through the elementary and secondary education act and I assume that money flowed to your state for materials, just as it did to some other states. Why then this very discouraging report in terms of deficiencies in Vermont?

Mrs. HARMAN: The elementary schools in Vermont have not had state mini-

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minimum standards. The secondary schools did, and in the state minimum standards for secondary schools, the libraries, qualified librarians and space were required for the schools to be approved by the state Department of Education. This was not true at the elementary school level, and so they have, let's face it, been neglected.

The ESEA Title 2 program has done, in my opinion, more for elementary school library services than anything that has been offered so far. It has made teachers and kids and parents aware of some of the needs and of the new things that are available, and it has made communities aware of what good elementary library services are.

Another problem is that the Department of Education has not had funding for more people on the staff to assist, especially in the area of audio-visual materials and services.

Ms. MOORE: When you say "a qualified librarian," will you tell us by what standards you judge a qualified librarian? Is it so many semester hours of training, or what is it?

Mrs. HARMAN: We have state standards for the high school librarians which indicate number of hours. By the way, these standards are at the moment under revision and we do not yet have state board approval on the new recommendations. When I say "qualified librarians," for the elementary schools, actually I am being a little optimistic because I think a lot of communities would consider a qualified librarian as one who has the basic library skills of cataloguing, book selection, administration, reference work and empathy with kids and teachers.

Mr. CASEY: You make a point that in small rural communities there are no well-qualified librarians for elementary schools. Do you now find that the same condition exists in the public libraries of those same rural communities if there are no professional librarians in the public library?

Mrs. HARMAN: That is one of the big problems.

Mr. CASEY: Has there been an effort by the Board of Trustees or by the Board of Education to hire one librarian on a part-time basis? For example, if the school library is open from 8:30 to 4:30, then there is a period where they might work on certain days of the week or on Saturday, or where now the public library is open all summer and so forth?

Mrs. HARMAN: Right. We are working on it. There are several communities now that are building new schools, elementary or sometimes grades eight through twelve, and they are giving serious consideration to having one librarian within the new school building that would service a school and a public library. We realize that this causes lots of problems and we try to get together with people. I have just held a conference at a new elementary school and was working with people from the public library, the public librarian and a trustee from the public library board as well as the school superintendent and a teacher. We were really trying to deal with some of the problems of combining public library services in an elementary school.

It is an area in which some of these small communities think probably they can bring up total library services, and I believe they can.

Mr. CASEY: That is your solution, I think.

Ms. SCOTT: Have you considered training the paraprofessional? What are you doing in that respect?

Mrs. HARMAN: Yes, indeed. As a matter of fact, some of the colleges in Vermont are now offering library technician courses, and these will be a big help. The University of Vermont now offers a Master's in Education with a major in library services.

Ms. MOORE: The State Department of Education in Vermont used to have in-service programs for teachers to give them training in library services. Do they still have that?

Mrs. HARMAN: Yes, indeed. As a matter of fact, I was just conducting one last night, just getting one started.

Ms. MOORE: Well, the reason I have great interest in this is that for nine years I taught those courses at White River Junction and Johnson City and other places.

PAULA CORMAN
 Director, Learning Resource Center
 North Shore Community College
 Beverly, Massachusetts

WRITTEN TESTIMONY

In New England information services illustrate well the saying that "the rich are getting richer while the poor get poorer". Rapid access to information, in spite of the proliferation of high speed computers, is either totally unavailable or prohibitively expensive. In this document, therefore, I would like to focus on the under-utilization of computer technology applied to bibliographic information retrieval in the New England area. This testimony will contain few charts and graphs (although these can be prepared for the eventuality of oral testimony if so desired); it will also be written in English for general consumption and comprehension rather than for the elitist few with their understanding of the jargon of the trade. This paper will contain a fairly brief summary of the situation as it exists today and will highlight a serious gap in the ability of users to access knowledge; it will also suggest a tentative solution.

Although New England is a part of the United States with access to possibly the most sophisticated amount of electronic brain power, its library users are still operating in the nineteenth century. While academic libraries are currently subscribing to many of the indexes to the literature, complex literature searches, necessary to support research, are still being performed manually and this is terribly inefficient. Literature searches formerly were quite easy to perform. One need only look at Wilson's Indexes to appreciate the utter simplicity of what a search involved. Contrast that, however, with the sophisticated techniques needed by the researcher today, whether it be the information specialist performing the search for a client or the client himself.

With the development of computer-applications to bibliographic search came the development of highly complex thesauri and lexicographic techniques. Furthermore, knowledge itself, whether chemistry, physics or any other discipline, has moved forward also so that by their very nature retrieval requires more sophisticated access techniques. This, together with second and third generation computers, created a situation whereby the literature and/or documents pertaining to a particular discipline were gathered into a corpus to be accessed as thoroughly as possible using vocabularies highly and speci-

fically related to the discipline itself; this ultimately resolved itself into in-depth searching (and not coincidentally, more of the researcher's time was required to achieve results).

Compounding this situation was the explosion of knowledge in the scientific and technical and, currently, behavioral fields of knowledge that has swelled these aggregations of knowledge far beyond proportions ever believed possible. With this situation as a backdrop, one is urged to walk through any of our academic institutions to see how this problem is being met, or is, as is more often the case, not being met by its libraries or information centers.

Data Bases and the State of the Art

Day by day, more and more data is being organized into machine-retrievable data bases. These include: ERIC, ENGINEERING INDEX, DISSERTATION ABSTRACTS, TAB, STAR, NEW YORK TIMES, CHEMICAL ABSTRACTS, TRANSDEX AND PANDEX to name just a few. The number of data bases presently in existence is, of course, a function of economics.

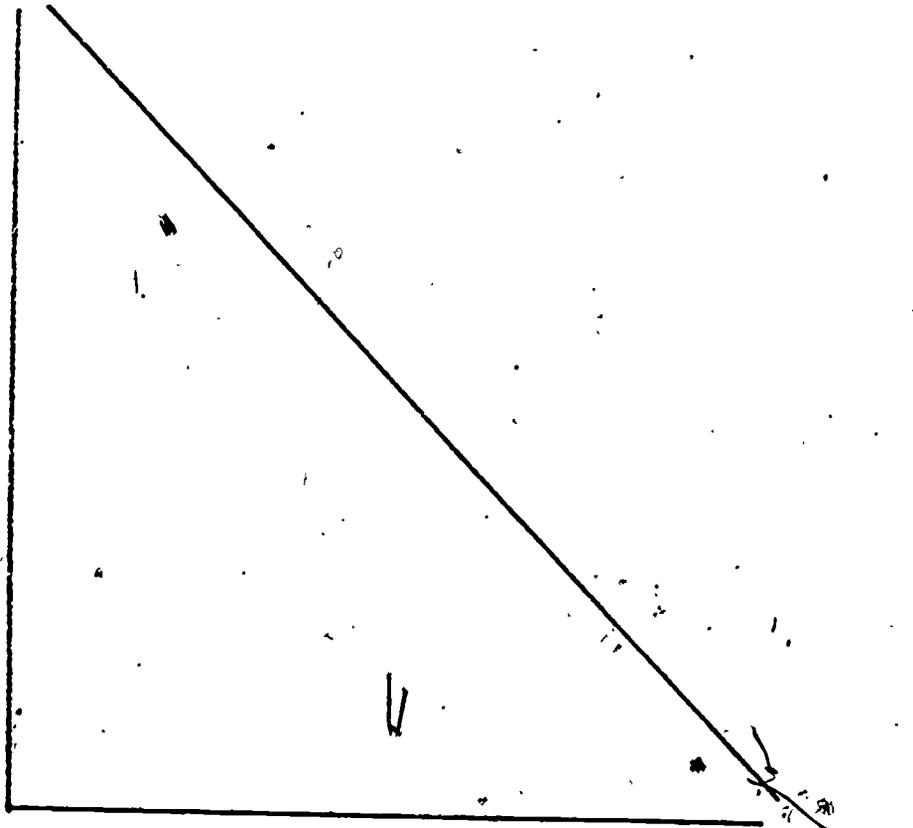
Most machine-retrievable programs contain the following components:

- (1) The data base itself, which may be made up of any number of records of variable length.
- (2) A large thesaurus or list of subject terms well thought out and carrying with them a high degree of reliability in terms of the number of accurate hits produced by using them.
- (3) Software either enabling a user to retrieve on it as is and to update the file as needed (if software and machine are compatible) or with some modifications. (Normally an institution will make every attempt to access such available software and make modifications as necessary. Not to do so results in large numbers of man-hours spent in reinventing the wheel.)
- (4) The tapes (or discs) on which the above are stored.
- (5) A set of bound indexes to the literature which may be incremented in monthly, bimonthly or quarterly configurations.

Since the formulation and organization of a data base is a slow and extremely costly process, a commercial firm will naturally not undertake the venture unless there is, understandably, a reasonable assurance of marketability. A fixed-cost curve is in evidence here in that the more purchases there are of a given data base, the cheaper it becomes to any one user. The optimum situation occurs only when the demand for the data base is large enough so that the fixed costs can be reduced by spreading them over a large number of purchasers (see Fig. 1). To encourage such demand, commercial firms will offer incentives to the user in terms of initial lower use-costs, package deals composed of two or three files and consultant services. In spite of these incentives, however, purchasing one or more data bases represents a large cash outlay.

Figure I

Dollars
P/Unit



Of Units Demanded

Machine retrieval is presently possible in either of two modes, batch or real-time, or a combination of both. The modes are:

On-site batch

On-line real time

Off-site remote entry - either batch or on-line

Using terminals, communication with the computer is carried over telephone lines. Optimum success in computer access presupposes that all components of the system are operational; that is, that Ma Bell, the terminal itself and finally the computer, are all working.

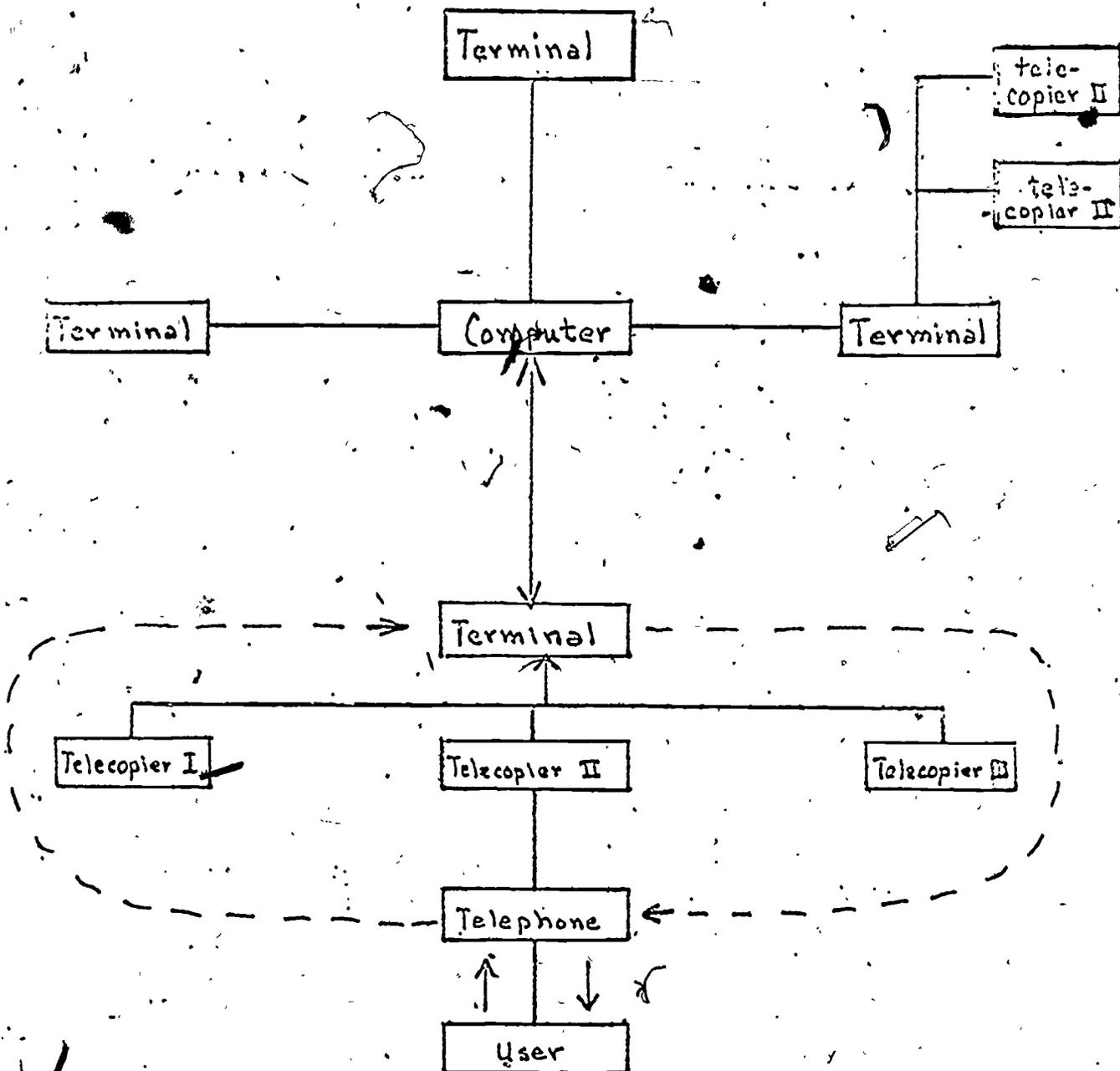
The system so far described, however, is still an elementary one. New methods of data transmission and new technology encourage an ever broadening circle of users all accessing the same configuration. For example, using voice-grade telecopiers would allow a central computer to be accessed indirectly by users who lacked terminals. Data transmission would be the result rather than direct communication of information. (See Figure II) Figure II describes a fairly widespread network of users all accessing a central computer. Plugging into the computer are a number of terminals. Into any single terminal we have a number of telecopiers which are activated by use of voice-grade lines. The user would send his request in written or verbal form over telephone to the interface based at the terminal. This person would then translate the request from the searcher's normal language to the language that is acceptable to the computer for searching on a particular data base. The search in its "negotiated" form would then be searched on to the computer in either of the two basic modes described previously and the results would reach the requestor using the same transmission techniques as the request. Thus it can be seen that a network can be put into place by installing a single centralized computer which ultimately would be capable of serving many users in a variety of modes. We will look again at this configuration as it might be put into place using a retrieval center that is already operating.

Costs

Should an institution concede that information retrieval or rapid access to information is desirable, it will naturally want to examine the costs involved in reaching this goal. But with the possible exception of ERIC, a federally-produced data base, the cost of purchase, mounting, updating, and retrieval is expensive. Should a decision be made to go this route, most of the cost is felt initially in what could be described as developmental. But even before considering use of a machine-accessed data base, an institution must first have a computer large enough to provide the considerable amount of core storage needed by the software for retrieving on these packages. And then the question arises about the usual costs normally associated with a computer of this order:

- (1) Does an institution really need to own a machine this large "just for research"?
- (2) Is there enough of this kind of retrieval needed to justify the added cost of such a large machine?
- (3) What about space, personnel and other on-going costs allo-

Figure II



cated for just this type of program?

Speed, of course, presents a cost factor that must be examined and so, assuming adequate core, an institution must weigh the costs that would permit rapid retrieval versus a slower machine with longer CPU time allocated for this function. But the amount of core storage and speed are only two of the problems. Decisions must be made between batch mode and an on-line real-time retrieval mode. Again as the amount of advanced technology increases, the costs also increase so that an institution ultimately must face the final question: Is convenience worth the dollar amount that must be sunk into information retrieval?

One only has to look at the sorry state of the budgets of higher educational institutions to be able to answer this question. The answer is, of course, a resounding "No". Let us examine some of the reasons that contribute to this negative attitude.

Due to the considerable expense involved in this type of information retrieval, even at a subsidized level, educational administrators must carefully assign a value to the procurement of information. Putting it most bluntly, the concept of opportunity costs normally does not enter into their thinking. Monies are, of course, allocated to salaries as a necessary part of the operating costs of the institution. On the other hand, monies to support faculty bibliographic research are spent over and above salaries and in the eyes of the administrator, there is nothing to show for it. Dr. Daniel Wilde, Director of the New England Research Application Center, points to the contrasting attitude of the private sector served by his center. Industry, he claims, perceives immediate pay-off from an investment in research whether it is visible in product or in staff development which ultimately results in product development or innovation. To this end, he has discovered that industry will pay a high dollar cost for information.

But what does information actually cost? Let us use Dr. Wilde's installation as a fair example.

NERAC, as it is called, is an outgrowth of NASA's information system. Having amassed a significant number of data bases to meet the information needs of its own staff, NASA decided to make this information service available to education at a subsidized cost and to the private sector at the actual cost. It set up six regional sites throughout the country, each capable of serving a large segment of users. NERAC is based at the University of Connecticut at Storrs. It is housed in a portion of a building, has its own computer, and is run by a staff of 13 full-time employees who are computer programmers and operators, subject specialists, and those who are considered administrative support. NERAC presently accesses seven data bases in-house with two more being contemplated for the Fall. Presently mounted are:

NASA
DOD
NTIS
ERIC
CHEMICAL ABSTRACTS
METAL ABSTRACTS
WORLD ALUMINUM ABSTRACTS

Of these, the first four are government-produced, the rest by private industry or by NERAC itself.

Dr. Wilde states that annual operating costs for the center run to approximately \$75,000. This figure includes computer rental, personnel and cost of file updating and maintenance (approximately 3% of the total operating expenses). The cost of a NERAC search is derived by dividing the cost of the center by the number of searches performed annually. At this point a search for a private firm will cost the user \$300 and to educators or educational institutions \$75 which represents the subsidized cost. Thus applying Dr. Wilde's logic, it becomes quickly apparent that an increase in the number of users would result in a lower user-cost per search.

Dr. Wilde also feels that the demand curve is reflected in the cost of purchasing the data base itself. With a wider dissemination, Dr. Wilde feels that lower costs could be passed on to the purchaser. But where are users going to come from so that a lower cost can actually be realized? And, at the same time, who is supposed to support the present high costs until such time as the volume builds up sufficiently to reach this goal?

A second area resource center - NASIC - hopefully will be in operation by next year. The problem, of course, is that it will most likely access only scientific data bases and that it, too, will have to charge for information.

What is being woefully neglected by NERAC, NASIC and any other project is this alphabet soup is the lack of non-scientific data bases. Indeed ERIC does exist, but few of the social scientists other than educators have any tools such as this available to them on computers. And, of course, it is well known that if any money becomes available for information, it is mainly allocated for the support of scientific research.

It would be difficult to find a research-oriented or academic library that does not subscribe to at least one of the indexes which form a part of a machine-retrieval data base. On the other hand, the number of colleges which have actually mounted any one, or more, of these is very small MIT's projects as well as MEDLINE at Harvard are well-known. On the other hand, only one of the six state universities in New England is making computer-accessed bibliographic searching a component of library operation or information retrieval. Another facet of the picture appears interesting as one looks at the fact that with state support, grade-school educators and administrators as well as adjunct support staff currently have computerized accesses to ERIC - in the southern tier states only - while their counterparts in the three northern tier states have nothing. Faculty at the University of Connecticut, of course, have access to NERAC which is based on their campus and yet neither faculty nor students at other state schools have anything at all.

The lack of numerous retrieval facilities for higher education is obvious. On the other hand, throughout New England in many special library situations, easy access to either in-house or off-site corporate computers has encouraged the proliferation of data base machine retrieval. And although industry obviously can see its way clear to supporting this service to meet corporate goals, a real or imagined onslaught on the computers and subsequent high costs has obviously led them down a path where the information is still unavailable to university-based or college-based researchers.

Therefore, to all intents and purposes, gains made in industry, because of costs innate in the process, are not to be replicated in education; and while it has never been documented, common sense makes us realize that the more research is hindered in the universities, the less opportunity there is for industry to convert research into profit-making products.

Solutions

Therefore, I feel that what is needed here is a break in this stalemate and as I see it, the only solution would be in government support of widely-accessible computer retrieval. Using the NERAC model and also incorporating many other data bases not presently being run by them, it should be possible to present an installation that has wide enough appeal to generate high volume low-cost use of the system. Such a model would permit schools without large computer-capacity to still provide researchers with rapid low-cost or no-cost data. Opportunity costs would accrue to the institution in that faculty and library staff would not spend the hours they presently do to find desired information. Industry would potentially reap the benefits in that the flow of pure research might be increased and that the results would pass more readily over to them.

With the administration's current emphasis on state-control of such institutions, I feel that the money for such an installation should be based in the individual state and directly reflect the needs of that state. I feel that the kind of duplication that presently is being supported in Connecticut is a criminal waste of taxpayers' money in spite of the fact that retrieval is still an extremely costly luxury. On the other hand, other states are less fortunate and it is true that the state universities and colleges are poverty stricken in the extreme. Therefore, I could see a grant being awarded to each state to bring up and fund such a unit. Line costs for telephone access to the computer could in some way be lessened since the distances would potentially be less than intra-state access and then everyone would have at least the same opportunities for learning and research.

Ms. CORMAN: I would first like to tell you that you have sitting before you an extraordinarily worried librarian. I am worried for a variety of reasons, not the least of which is the summary of your proposal that I received just recently. I think the idea of networks is of tremendous importance, and from what I have heard sitting here today, I know we have to acknowledge them and we have to begin to work along those lines, but I am worried because, first of all, if the money comes into the state, I really feel that it has to have some kind of controls in place; otherwise, the networks that are up and working out can tend to get overridden and I feel that the networks that are up and operative are obviously meeting a need within the state.

For example, the state colleges and community colleges and the state university have banded into a network whose acronym is something called MCCLPHEI, which stands for the Massachusetts Council of Chief Librarians of Public Higher Educational Institutions, and even that is a mouthful. This group has gotten together and started working for cooperative acquisitions and cataloguing, but it does not go far enough. On the other hand, it is meeting a need and this is where I would like to see the money that comes into the state, if it does come in. I would like to see it strengthened, this kind of organization.

I think your program, as I have read it so far, does not go far enough, and I am about to voice a heresy here. I would like to see the use of libraries extended to people who never go near them. I feel that we have talked about the importance of the printed word but we have to recognize that in many of our communities today we have a large group of non-readers. They are not threatened by television -- that is not threatening to them -- and, therefore, I would like to see an allocation of funds within the state going to strengthening the concepts and the abilities of the cable television networks, the electronics that come out so that these people can become educated, can become viable resources within their own community but without being threatened themselves. I feel that is happening right now.

I worry about the fact that there are multiple kinds of information that people need and that, in the course of a super-sophisticated system that might come up, the very basic survival needs of the under-educated, of the underserved, are going to be overlooked. I would like to see something put into place in your considerations that takes cognizance of this.

I worry about the education in the library schools. I feel that that has to be upgraded. I have in my college many people coming to me for jobs who are being prepared to be librarians of the 1900's. They are absolutely has-

sled, as has come out here before, by the concept of using a telephone basically, and an electronic charging machine or something can send them into a tailspin. I feel that our library schools unfortunately, with very few exceptions, are still preparing people to work in the kind of library that is not automated, that does not have a prayer of getting automation, that is undersupported and, therefore, has to make do with the very basic, simple charging equipment. I worry about those students and the libraries in which they are going to be employed.

I worry also when you talk about the multistate concept. I feel that there is need for regional systems and, as I indicated in my testimony, I think that this is important. On the other hand, realistically -- and I think it is time we address this -- once the money comes into the state, it is going to become a political football, it is going to get disseminated to the people who have the largest and loudest amount of voices being heard. Librarians, I think, are terrifically dedicated people, but if I were a politician and I had to serve somebody, I would worry about the sewer in the neighborhood, not the library, because that is what is going to get me my votes and, therefore, I can see -- and I have had experience in working with networks on a multistate basis -- that money became a political football to the point where the network has to fold up and just drop out of sight.

Other than that, however, I think that the ideas that have come out today and in your testimony are tremendously interesting and I would like to see them go further.

Chairman BURKHARDT: Well, I would hope that a number of your worries would be removed when we go more deeply into this draft of a national plan. For instance, I was unaware of the apprehension you seem to have, that our national plan as now suggested would supersede any of the networks now in operation simply because it would be the plan we suggest. I think one thing

we had in mind was that you grow up from the bottom and use the networks that are now working and tie them together. Now, maybe I misunderstood the document but that is the way I understand it.

Ms. CORMAN: I did not see your plan as superseding them, but I was afraid that some of these existing networks would, because of dollars, be superseded and you would use a pragmatic approach to this.

Mr. LORENZ: Well, actually if the money came to the state level, would there not be a likelihood in terms of the democratic process, that it would be the existing systems that would have the largest clienteles that could bring their voices to bear on the state decision, rather than something new that would have no existing clientele?

Ms. CORMAN: That is just the point. It is the existing ones that would have a voice, and what about the other ones that are not being addressed or perhaps inadvertently will not be addressed by the plan, since I think we all recognize that it can only go so far and we have not possibly touched all of the needs.

Mr. LORENZ: I think I misunderstood your concern then. I thought you were concerned that the existing systems would be ignored and new systems would be created.

Ms. CORMAN: I think that would happen to a degree.

Mr. STEVENS: Paula, I wonder if, aside from the comments you have already made, you would talk just a little bit about the community college library as a component of a network in an area or as a borrower and a lender in a network. We haven't heard from community college librarians in the course of the hearings, and perhaps the North Shore Community College has some general things to say about the community colleges in networks. Maybe you could share those ideas.

Ms. CORMAN: I would love to, Chuck. I think the community college

system in the state is an interesting one because it provides the nucleus of a network. Right now there is a grant that is operant within the state where the community colleges will be getting together with the public librarians of the communities who are serving or feeding in students to these community colleges, and the outcome of this grant hopefully is an attitude of mutual cooperation. The community college takes its responsibility in the community extraordinarily seriously. They want to be accessed. They are a community resource; they are being funded by the state and, therefore, they should be open, not only with regard to courses and an open classroom, but the library and the learning resources of the institution, should also be open.

We are trying to see how. I have just finished developing a proposal to see a regional concept within Essex County, where North Shore is located, so that the community college can in some way augment the limited resources of some of the very small public libraries there.

The community college resources are now open to all of these libraries and the people who use them are welcomed into the institution.

Of course, the community college in my area functions with the community colleges around the state, so that there is an interaction between these institutions -- cooperative lending, cooperative borrowing, and hopefully down the pike, cooperative cataloguing will go on so that we will make better and more efficient use of the resources that the state allocates to us.

Mr. AINES: Last night while reading all of these papers, I was also reading another publication called "Challenge to Leadership, Managing in a Changing World," by the Conference Board. It has just come out and probably has just now become available.

You will be interested to know that they were writing about the community college and its place in the educational scheme. I will just read one statement which should please you: "The community college has become the most

truly democratic of institutions of higher learning in America."

Explained in here was the reason for this, the fact that it is going to people needs rather than trying to emulate the universities of old. I think that I would like to tie it now to your comments, which seem to go to a different direction entirely, being concerned about the use of data banks and their underutilization. What do you think we ought to do about trying to increase the amount of use of the systems that get cheaper by greater use?

Ms. CORMAN: I wish I had a simple answer for that. I think that if they could become free, the use of them would increase to the point where, if a charge had to be made to access these data bases, the charge would be nominal or minimal. Again we get back to the concept of education. Until my administration and my college is aware of the value of information, I will never get any money strictly allocated for computer access, let us say, to these data bases.

It is cheaper, according to my administration, for my reference librarian to sit there and spend six hours on an information search. There ought to be some way of breaking this stalemate, and in my testimony or my written testimony I am afraid I didn't hit it too hard because I haven't got the solution. This is where I think the problem originates, so I think you have got to start at the educational level and there has to be an infusion of money from some place so that it becomes demonstrable: the importance of the information to the faculty, to the students, to the administration itself, who still do not use the library. In this way we can build up the usage so that we have a cost effectiveness and a break-even point -- maybe not a break-even point, but at least it becomes less expensive.

Mr. AINES: But do you think these specialized data banks, which have only a limited appeal for certain types of installers or engineers or scientists, would be the way to build up that confidence? Are these not

too restrictive in their potential for a large group of students and university professors?

Ms. CORMAN: I think it depends on what data bank you are referring to.

Mr. AINES: Take the chemical information data, CAS.

Ms. CORMAN: Okay, I can agree with that. I can't see any community college students using chemical abstracts or something like that. On the other hand, I can see my faculty wanting to use ERIC, and we have not got it now, unless I pay out of my library fine money. I think that is criminal. The people in the social sciences have no access whatsoever. I cannot afford something like the New York Times computer service, and we have to do manual searches there for faculty and students alike. I think if the students were inculcated to using a data base for whatever they needed, they would become the potential users in the future and would demand this from their libraries.

Mr. CASEY: This is a two-part question. The first point that you made was that library use should be extended to those who don't go near libraries, and one of the ways of bringing the library to them was by means of CATV. So my question is: Give me an illustration of how a library might bring its resources to someone via CATV.

Ms. CORMAN: Well, let me say that when I see this happening, I see it via an intermediary and that would perhaps be a video cassette. So, therefore, I would request from my local resource center -- and I distinguish that from the word "library" because I am wondering if the word "library" is not becoming an outdated term anyway; we are resource centers -- I see my user coming to my resource center and requesting a video cassette, and that is plugged in somehow with an electronic attachment on his set. I see my local library disseminating information, survival information, for people who are least likely to come into this institution and ask for it.

My Puerto Rican mother does not know of the resources available in my

library, whether it is a public library or a community college library, and she is not going to come to me to ask for the very fundamental survival information -- what to do when her kids get busted, for example. Therefore, I see CATV and the library giving her this information, telling her the information sources already available in her community.

Mr. CASEY: And she gets this over CATV on her home receiver? Is that the point?

Ms. CORMAN: I think she gets it either way, if she has the money, and I submit the people will have the money for the cable television; this is an access to them. Of course, we have a problem of getting people to tune in that channel, but at least we have got a wedge in the door.

Mr. CASEY: Or otherwise they come to this resource center and see this receiver on in this particular building?

Ms. CORMAN: Yes.

Mr. CASEY: So, therefore, they are coming to us to some extent.

Ms. CORMAN: They will come, yes, but this is an initial step. I think it takes an awful lot of guts to come into a library.

Mr. CASEY: The other point is, you see, if we expect to receive information on a home receiver via CATV, that presupposes we will pay a monthly fee, which is a philosophy contradictory to our public library type of service. If you want this CATV service, you have to buy it, in a sense, whereas, in normal public libraries we give out books without any charge. So there is an inhibiting factor in the use of CATV.

Ms. CORMAN: You are quite right about that. In the proposal I alluded to earlier, we foresaw a network being created around a community college that would in turn (with a large infusion of money, I might add) set up electronics satellites within the various communities which would again be open to the public, since we are a community institution, and within that

electronic satellite there would be the capability to use the cassettes and, of course, they would be free of charge to the community.

Mr. BECKER: I was just going to mention to Paula that in Casper, Wyoming, they do have a CATV application which goes from the home to the resource center and back again. It does require that the individual subscribe to CATV in his home, but if Channel 3 is his CATV station, there is a requirement in the franchise in Casper that public institutions have the right to transmit over Channel 3 at certain times of the day or all the time -- I don't know; whatever it may be -- so that an individual in his home could telephone for a resource and ask for something. He could ask over the telephone or involve a response that was graphic in character, a map or picture or a couple of pictures, and in his telephone he would be told that he could get the information over Channel 3 and he has a chance to see it.

Ms. CORMAN: May I just say that in Tulsa, Oklahoma, there is a model system pretty much like that, Mr. Becker, whereby the individual communicates by the touchtone system to a teacher who is teaching, so that this is not very far down the pike.

Chairman BURKHARDT: You still have to pay \$7.50 a month in order to subscribe, and your Puerto Rican mother is not going to have that money.

Ms. CORMAN: I absolutely agree with you. However, if there were electronic centers -- and I know that sounds Orwellian -- if there were centers out in the communities, not in a formal institution -- in the church or community group -- I think there is an outreach program that has to go to reach these people and then possibly some of this dissemination could go on.

ALAN D. FERGUSON
 Executive Director, New England Board of Higher Education
 Wellesley, Massachusetts

WRITTEN TESTIMONY

BACKGROUND

This Board, created in 1955 as the official agency of the six states of New England for the development and conduct of interstate activities related to higher education, is by its very nature sensitive to the essentiality of widely accessible, economical, accurate, and modern information services for the post-secondary academic community.

It was through the aegis of this Board that, in the mid-1960's, one of the first interstate computerized library technical processing and bibliographic information networks was started. Now in the mid 1970's this is a thriving and growing enterprise serving over 30 of the major academic and public libraries in New England, and through them nearly a score more of associated libraries.

Comments by Ronald F. Miller, the staff director of this network, the New England Library Information Network (NELINET), are part of this statement. Mr. Miller will be present at the October hearing in Boston and would be pleased to testify.

More recently, this Board was selected by the National Science Foundation to develop a capacity to make machine-readable science research information accessible to science research personnel on a wide regional basis, using the library as the point of access. This three-year development project is being undertaken with the close cooperation of the Association of Research Libraries, the Massachusetts Institute of Technology and several other agencies deeply concerned with the matters of the Commission's interest. Known as the Northeast Academic Science Information Center (NASIC), this project will do its pilot development work throughout the entire northeastern region of the nation. Comments by William R. Nugent, director of the project until very recently, are part of this statement.

These two activities address directly two of the Commission's topics of interest as set forth in Dr. Burkhardt's letter of 16 July, 1973, relative to the Commission's hearing in Boston. They both are related to the concept of national networking of libraries, as well as to the utilization of new technology to promote improved (and expanded) library service. From our experience and ongoing activities we have great interest in the concept of regional resource centers, knowing that these will prove to be the most cost-effective way of delivering and expediting expanded access to and use of information desired by library clients.

Responses to
 Commission Questions

Mr. Ronald F. Miller, Director of NELINET, has responded in his attached statement to the Commission's specific questions in the matter of the relationship between libraries and government. Mr. Nugent's attached statement

also relates to these questions, but in a less orderly way. A few additional comments may be pertinent, particularly with reference to the community of academic libraries.

As the entire business of storing and making written and audio-visual information accessible to users moves into the electronic technology era, it is very clear that the Federal government should provide leadership without dictation, and support without creating dependency. It has not done this adequately. Federal legislation is necessary to serve as the keystone upon which state and local planning, initiative, and support can build. Only Federal legislation will provide the measures of encouragement and support for "pure research" into library and information systems research and development. The private sector will not do this, nor will the state governments. A decade of major Federal support is needed to develop library capacities to meet the information demands which libraries should satisfy.

The inter-connection of academic libraries is advisable for several reasons, among which are the expansion of access to information wanted by but not available to local clients, the great cost economies realizable through cooperative acquisitions, specialized holdings, and shared cataloguing procedures, and the modernization and updating of processing standards which result from cooperative activity. The costs of electronic communication dictate a large user base if local expense is not to exceed local capacities to pay for information services. From the view of this Board regional interconnection should precede national. The technical and managerial complexities of a national network would be sufficient to suggest moving to that objective slowly. In our experience the interconnection of regional networks might well serve as a national network, and even then there would be important library elements which would require special arrangements, e.g., the Library of Congress, large research centers such as Harvard, MIT, the New York Public, Columbia, and Yale.

State governments must bear important responsibilities for academic library networking in that they must bear the major cost element for the public institutions. Increasingly they may be called to carry some of such costs for the private sector. If regional networks are developed they must bear a share of the administrative costs for the agencies which manage these. As in so many other enterprises, state responsibility should be for administration and management rather than for research and development. The development of state-wide plans for both minimum and optimal library services to state citizens would be useful indices, but these would, of course, include public library services as well as those of academic libraries. From the academic side, responsibility for this planning and for implementation should rest with the state coordinating or operating boards of higher education, and should, probably, be subject to review by the Section 1202 commissions mandated by the 1972 Higher Education Act Amendments.

(Testimony of William R. Nugent, Northeast Academic Science Information Center)

The Northeast Academic Science Information Center, NASIC, is being developed as a cooperative science information center to serve the Northeast science research community. NASIC's mission is to provide a regional means of access

to existing computer-based information resources and information centers in the United States. University libraries will be the interface organizations, aiding academic researchers in the use of NASIC services.

NASIC's development is being funded by the National Science Foundation, and it is expected to become self-sustaining on a non-profit basis, subsequent to the sponsored development period.

Three problem areas confront the establishment and operation of regional information centers such as NASIC, and it is believed that NCLIS could aid the nation's academic research and library communities, by sponsoring enabling legislation and appropriation in three areas:

1. Establishment of Federal Operating Grants

Most federal money in information systems is directed towards research, development, experimentation, initiation of trial systems, etc. Most federal support is and has been in the nature of "seed money", and funds for system operation have been largely non-existent.

One result of this federal policy has been the establishment, trial, and subsequent dissolution of new information systems, as a result of the absence of operating funds.

While NASIC is being developed to be independent of external subsidy, by virtue of marking up the direct costs of its services sufficiently to sustain NASIC operations, there is a serious question of whether it is desirable that an organization of this sort should be required to charge "commercial-type" rates to its academic clients. We believe rather, that the providing of these services at direct cost, or below, has considerable social benefit to the nation. Therefore, we propose that the following policy and legislation be advanced by NCLIS:

- 1.1 Federal funding agencies concerned with science and/or information, such as the National Science Foundation, should be empowered to support the operation of science information centers as well as their development.

2. Establishment of Federal Grants to Information Institution Centers

Libraries and related information distribution centers have evolved through United States history from being "membership organizations", to being "free libraries", to becoming with the advent of relatively high cost computer-based information services, once again "membership organizations" wherein information services are once again restricted to those able to pay for the information services provided, either on a per-service or annual membership basis.

It is the NASIC view that far greater social benefit obtains with the "free library", especially in the special case of academic research. It is incontrovertible that academic R&D has become a major driving force of national scientific pro-

gress and of measurable growth in the GNP. Therefore, we believe that the usual commercial measures of user dollars being exchanged for supplier services should not obtain, and cannot be the basis for the expanded academic science R&D the nation needs.

Therefore we propose that the following policy and legislation be advanced by NCLIS:

- 2.1 Federal funding agencies should be empowered to support the information distribution centers supporting academic science R&D. Specifically we encourage federal financial support for academic libraries, such support to be earmarked for the purchase of computer-based science information services for the libraries user communities.
3. Establishment of Uniform Royalty Policy for Commercial Research Services and Copyright Exemption for Academic Research Services
 Science information centers, information analysis centers, and similar organizations must be enabled to assemble and disseminate the world's knowledge regardless of source, and without singular negotiation with each copyright owner. Proposed Policy and legislation:
 - 3.1 Information organizations need a federally sanctioned uniform royalty policy to deal effectively with commercial clients for information services, and should have federal exemption from U.S. copyright restrictions when providing information services on a non-profit basis to universities and other non-profit R&D organizations.

Mr. FERGUSON: Mr. Chairman, ladies and gentlemen, again I am pleased to have this chance for a few minutes to chat with you.

As you know, perhaps, from the materials that I have submitted in writing, of which you have at least an abstract in front of you, I am not here as a librarian; I am not even here as an information specialist. I am here as the administrative director of an agency which, I suspect is probably doing more in the information science business than any other single regional agency in the country at the moment. It is not very much, but it is more than anyone else is doing to develop interstate regional delivery of information and expanded library services through the network.

Our agency, as I believe one of my colleagues testified this morning, Mr. Ronald Miller, is the official agency of the six New England states chartered by statute, ratified by the Congress, to assist these states on a cooperative basis to deliver improved educational facilities and opportunities for the citizens of this region.

Some years ago, through the prodding of librarians, the agency undertook to sponsor and provide the necessary support services for the development of interstate library cooperative activities, primarily relating to bibliographic service and technical service capacities which has resulted in what today is known as the New England Library Information Network.

This is a small but, I believe, extremely healthy organization with several members of it who have in fact testified today before your Commission, with some still to come.

We have recently, through the support of the National Science Foundation, entered into a new and different but expanded activity along the same lines. This is a large project whereby we hope to develop a regional and, this time, northeastern United States involving ten states and not six, academic science information center.

Now, I had mentioned in my testimony in writing that both of these activities address some of the Commission's immediate concerns. I cannot talk to you about the details of what should or should not be service to individual users, but I would underline and underscore the testimony given to you in writing and perhaps verbally this morning by Mr. Miller, that we are, in our organization, at the stage of development where we are not concerned about technology except its costs, but we are concerned to learn more of user habits and the user's relationship to the library as an information access point.

Our organization, as you can tell by its title, is primarily mandated to work with academic libraries, academic post-secondary libraries. Within

the library information network we have responded to the requests of some public libraries in New England and they are active and thriving members of the services which are available to them through this interstate library network operation.

Turning to the statement which the Commission itself has issued concerning this hearing, my remarks will be brief and then, if I may, Mr. Chairman, I would like to ask the Commission a question.

I am very sympathetic to the concept of national planning, as I said in my written testimony, but I do believe the Commission, at least in its written statement which I have read, underestimates the potential for achieving your national goals through the medium of the interstate regional agencies such as the one that I represent. I believe, if it were further investigated by this Commission, it would be found to be an agency which would be useful. I happen to believe, perhaps because of partiality, it is probably essential as a step toward your national effort. I believe the Commission underestimates this type of potential and I would place more hope here than the Commission now sees, and I would worry less about the peril which the Commission says it fears.

I agree that building a national library network on a state-by-state basis is probably a self-defeating enterprise. So I urge the Commission to seriously investigate interstate regional arrangements and I think it is very obvious to you that the word "regional" is undoubtedly confusing. Some people call it "citywide," some people call it "townwide," some people call it "within the state." When we use the word we are talking about interstate activities, but there are three of us in the country, as you well know: the one I represent, the Western Interstate Commission, located at Boulder, Colorado, and the Southern Education Board in Atlanta. Between us we serve the higher education interests of 32 of the 50 states. I would hold that this is not a bad bloc to begin with and I feel

that you would find a great deal of capacity through these three agencies for cooperation in the development of the standards which are so essential, as we have found through the long laborious years and countless hours of conversation that we have had to undertake to establish the New England Library Information Network, and which we are now undertaking in the Northeast Science Information Center.

My question, Mr. Chairman, is: Why, other than the statements which have been made about concern, in an ad hoc activity such as ours, such as the OCLC in Ohio, such as the other networks growing out in New York State and down in Texas and practically everywhere you can look -- why you object or why you place such little emphasis in your statements on the use of regional boards, whether it be our board or the southern board or any other conglomeration of state activities and as a step toward your national objective?

I get the impression, from reading your statement, that you have hopes through your various researching and hearings of being able to establish a master plan which will somehow leapfrog over the local and state and the few existing regional arrangements which exist; and I said in my testimony that the managerial and logistical problems that this will encompass are so massive, -- and I say this from six of our small states in New England -- that I shudder to believe that the actual implementation could be achieved in anything less than a decade.

So my question to you, ladies and gentlemen, is: What is wrong with interstate and regional operation?

Chairman BURKHARDT: I will ask the chairman of the committee that was responsible for producing this first draft to address himself to that question.

Mr. BECKER: I think that it was not a conscious or a deliberate, intentional desire to omit it, but having heard Ron testify this morning and now you this afternoon, I feel that it is something that we very definitely

should include, and I am glad that you both brought it up.

Of course, the traditional way in which money has funneled from Washington has been to the states, and it has been the states who had formed interstate compacts and had created regional activities, using "regional" as you define it. I would be interested in your reaction to the way in which money could flow that would be different from having it flow from Washington to the states -- I mean for the development of a national network.

Mr. FERGUSON: Well, I have no formula, Mr. Becker. I think our grant from the National Science Foundation is very obviously one example in response to your question. The Foundation has turned to this agency in the hope that a capacity to touch base with six states and to form a bridge between the official governments and the post-secondary educational institutions may accelerate the development of the activities with which they have already been engaged at separate campuses for the past year, because the pace of local development has been too slow. No one who is concerned with these matters is going to live long enough to see anything of a network developed at the pace at which single grants or single state grants would operate. We don't know if we are going to be successful nor do the people in Washington, but if funds are flowed to the states -- and here is another problem in which perhaps our board is not directly concerned with the Commission's concerns -- there is clearly a dichotomy between public libraries and academic libraries. You talk of funds flowing to the states. My knowledge, which is admittedly limited, is that these funds that you are talking about are funds for library development, and I am talking about funds which relate to the development of independent, most often autonomous, institutions of higher education which somehow must be developed into a network. You have the same problem very obviously if you try to deal with 50 state library agencies, as we do when we deal with the 250 libraries of the higher educational institutions in New

England.

You would, in this Interstate region, have to face the problem of an existing New England Library Compact that has never been implemented and is waiting for somebody to pump some life into it. It is ironic in a sense that a Commission as general as yours, charged with the improving of academic library facilities, should come along and be an actual implementer of an activity of all six states, whereas the existing Library Compact lies dormant.

Mr. LORENZ: I thought that the New England Library Compact received aid from the six states.

Mr. FERGUSON: No, sir. Well, there is a board that has now, in the past year, been implemented, the New England Library Board; in terms of motivation, they certainly want to implement the compact, but the source of funds, as I understand it, are federal funds which come to the states. Now, as these dry up, as has happened recently, so dries up the New England Board.

Chairman BURKHARDT: Mr. Ferguson, in talking about this national program, which includes a network, cannot one make a distinction between the funding channels and authorities that receive the funds and the mechanisms and instrumentalities that are going to compose the network? They don't have to be exactly the same.

Mr. FERGUSON: I think that is quite right, Mr. Chairman.

Mr. BECKER: Mr. Ferguson, I ran into another Commission in Washington called the National Commission on Intergovernmental Relations, and they are very concerned with the whole notion of regional relationships to the federal structure. They are studying the local and financial consequences of a different pattern of financial relationship between the federal government and the groups of states. They are working with the Council on State Governments, with the League of Mayors and so forth.

Mr. Ferguson: Yes, I am familiar somewhat with that. We tried some years

ago to institute a training program for public officers as middle management personnel working with local and state and county levels, and we were concerned about the enabling legislation for this commission. So we had looked somewhat into that.

Mr. LORENZ: Are you aware that under the Higher Education Act, Title 2, that the center for research libraries in Chicago did receive assistance with the approval of participating libraries? I wonder if you have tried this methodology for your board?

Mr. FERGUSON: No, we have not. We are up to our ears in work at this juncture. We are only at the stage where we now have enough confidence to feel that we should go into what we call informational science.

Mr. AINES: You asked a question actually of the Commission. You also pointed out in the document that the federal government should provide leadership without dictation and support without creating a dependency. These are not necessarily two statements which can be tied together very easily.

Mr. FERGUSON: I realize that.

Mr. AINES: Those of you that are familiar with our history with the Chemical Abstracts Service and the building of mechanized information capability should recognize now that there are forces in the Office of Management and Budget which pretty much preclude anything that looks like support for the development of systems of this type. So the point that I have made here is that we in the Commission are looking for legislation to provide a firmer foundation than perhaps research grants which may come and may go without any guarantee.

Mr. FERGUSON: Yes, I realize that and I appreciate that comment.

LAWRENCE SOLOMON
Director, New Bedford Free Public Library
New Bedford, Massachusetts

Chairman BURKHARDT: Now we have a little opening which has been created by someone who is ill and I want to ask Mr. Lawrence Solomon if he is here. I could give you some time, Mr. Solomon, now, if you want to take it.

Mr. SOLOMON: My name is Lawrence Solomon and I am the Director of the New Bedford, Massachusetts, library. I have spent some time today looking at the draft proposal of the Commission and I heard a lot of testimony, some of it about the detailed aspects which primarily affected a person who happens to have been reading it from their point of view. The main thing that struck me about the draft was that you opened the door, but then closed it or paused on the threshold and did not go any further.

I think what I am telling you, ladies and gentlemen, is that you do not go far enough.

Perhaps we should consider that the major libraries in the country are not in any sense any longer local libraries -- you think of the Boston Public Library, the New York Public Library, the Chicago Public Library. These are in no way local libraries; they are dependent upon a wide community throughout the state and very often throughout the country for use of their collections.

In this sense, I think the major libraries of the country, both public and those in higher educational institutions, should be considered as a natural resource and should be relieved of their dependency on local funding. Perhaps this Commission should consider a federal funding of the major libraries of the country, both public and those in higher education, on the basis that they are a natural resource and just as important as other natural resources which we are now working very hard to conserve, and perhaps this support could be based on the basis of matching state funds and some other

formula that would insure that they adhered to the demands of the area in which they were located. This financial support perhaps also should be contingent upon open access, and participation in regional or national networks. You would then establish the basis that you have so ably presented in your draft, that you would have a national network and you would be involving leading libraries and the library leaders in the regional networks and a statewide network. You would then be able to capitalize upon existing regional networks, of which there are several, some more active than others, some needing some encouragement, some just waiting to do great things.

I would suggest, to insure that the regional networks adhere closely to the demands of the region, that somewhere along the line a regional council be invited into the act, perhaps of an advisory nature, which regional council would have representation to a national council which would act in the same capacity to whatever national and administrative body there was.

I have heard various proposals, and one of them that came over very strongly was that the Library of Congress be empowered to be the national coordinating and directing agency; in line with their other activities in the library field, both in public, state and special libraries particularly, this would seem to fit in. The national advisory council, so set up, would be, I believe, advisory but have considerable political power because it would be based at the grass roots of the local and regional levels.

I would suggest that possibly the state and local funds thus realized could be used to set fairly high standards for local libraries, which would be necessary for them to participate in this regional network. You would then leave the way open for local support, participation, contributions, modifications and adaptations to suit local circumstances, and yet you would provide the avenue for strengthening of the regional networks and the communication of ideas and of information internally within the regional networks.

A network could be worked out among the regional councils and the library leaders of each area.

DAVID L. WEISBROD
 Head, Development Department
 Yale University Library
 New Haven, Connecticut

WRITTEN TESTIMONY

I thank you for Chairman Burkhardt's invitation of July 2 to submit written testimony.

I am writing as an individual who has been professionally involved in electronic data processing in libraries for some eight years, all of them spent at Yale University Library, which as you know is a large research library within a privately endowed university. The Yale University Library has a number of uniquely strong collections and, I feel, is properly regarded as a research resource of national importance. My concern is mainly in regard to the application of electronic data processing technology to facilitate the bibliographic (and other) information handling problems of libraries. I address myself here particularly to topics 1, 5, and 6 of the Chairman's invitation to submit testimony: (1) national networking of libraries, (5) utilization of new technology, and (6) The Library of Congress as The National Library This letter, of course, represents my own opinions and not those of the Yale University Library.

I believe that under the pressure of continuing economic disadvantage the present de facto national bibliographic system will be unable to keep up with the increasing demands placed upon it, unless a coordinated computer-run system can be developed. Such a computer-run system will have to fulfill not only the functions presently performed, but also others not presently performed. The MARC Production Service of the Library of Congress and the Ohio College Library Center are the first major examples of successful production systems serving general libraries (the word production is used here in contrast with experimental). The Medline service of the National Library of Medicine is a production service, too, but it serves a special community of libraries. We are just presently entering a period in which we will have operating the first production models of some of the elements that will eventually unify to become a national computer-run bibliographic system. This system will probably consist of components of heterogeneous design tied together through standardized communications interfaces. Some of these components will be networks organized on state, regional, institutional, or professional bases; other components will perform functions for the nation as a whole, e.g., the MARC distribution service of the Library of Congress. It is important now that different designs be tried in various systems in order to have an early and effective sifting out of the good from the bad, the useful from the frivolous, so that this required national computer-run bibliographic network may be synthesized primarily on the basis of actual experience, not intuition.

A number of technical problems relating to the electronic processing of bibliographic data still remain to be solved:

to devise a means for the multidirectional exchange of MARC (machine readable cataloging) data -- not just unidirectional flow outward from the Library of Congress;

to clarify, and then to solve, the problem of generation, dissemination, and use of authority data in machine readable form, complementary to MARC;

to produce economical multi-font displays, both in "soft" and "hard" copy;

to extend the benefits of electronic data processing technology out from the back rooms of the library, where EDP has been used so well to expedite technical services, into the front halls of the library to perform public service more directly benefitting the library patron. This very general problem subsumes many important sub-problems, such as (1) the requirement for high system reliability at reasonable cost, (2) the identification and definition of the most useful access points to the bibliographic files, and (3) the human engineering of a query/display mechanism useable by the general public without the intermediation of trained library staff.

From these features, and others, it is not difficult to conceive of establishing a continually up-to-date National Union Catalog (NUC) data base in machine readable form, centrally kept with public access through multiple access points (e.g., author, title, series, subject) and containing at least prospective records from a certain data forward, if not retrospective data. Such a data base would expedite and enhance the present functions of the NUC, viz., the dissemination of shared cataloguing information and the expediting of interlibrary loan through the dissemination of holdings information. If this NUC data base were accessible on-line, the impact would be especially great, particularly on interlibrary loan: the electronic communication network that provided remote access to the NUC data base could then also serve as a message conveyor for the actual interlibrary loan requests themselves.

In my opinion, the role of the federal government in this enterprise should be:

to increase its financial support for heterogeneous prototypes of regional (and other) bibliographic networks, in order to expedite the competitive development of the best approach(es) at this critical point of time. It is through multiple attacks on the above mentioned problems that their most effective solution will be found. A technological "solution" should not be forced from the top;

to recognize the full importance of the national bibliographic services performed by the Library of Congress and to fund them adequately, including trial interfaces with various regional (and other) networks.

That proper application of electronic data processing technology can

have radically beneficial effect on the nation's libraries has now been clearly demonstrated in a few, specific areas. The potentials for further improvement are just beginning to become clear -- fortunately, at a time when these improvements are needed.

I thank the Commission for providing me this opportunity to state my views, and hope that you will feel free to call upon me for any further information I may be able to provide.

Mr. WEISBROD: I would like to thank the Chairman and the Commission members for this opportunity to come before you. You have received my written testimony which, of course, represents my own personal view on some problem areas -- not necessarily the official view of the Yale University Library.

My orientation is rather more technically oriented than the testimony I have heard so far this afternoon.

I regret not having been able to read the Commission's draft report which did not arrive at my desk before I left to come here, so I will give you my comments in writing at a later time.

Chairman BURKHARDT: I wish you would.

Mr. WEISBROD: I do have some additional concerns to bring before you. One is that I have just had the opportunity to begin to read carefully a report of which I trust the Commission has a copy: "National Aspects of Creating and Using MARC/RECON" (RECON Working Task Force. "National Aspects ..." Edited by John C. Rather and Henriette D. Ayram. Washington, D. C., The Library of Congress, 1973). I assume you have it, because there are a number of recommendations in it addressed to the Commission. I would like to say that I certainly agree with them; and as far as I have read, these recommendations are essentially similar to or complementary to the suggestions in my own written testimony.

I would like just to note that considerably less than one-half, and probably less than a quarter, of all machine-readable cataloguing being created in the United States today is originating at the Library of Congress.

The rest is taking place somewhere else out in the field, and there is a pressing need to get it all together, quite literally.

I see as necessary a series of evolutionary steps progressing toward a national bibliographic system of increased effectiveness. One step in this direction -- a preliminary step that might precede any of those recommended in the "National Aspects ... MARC/RECON" report -- would be the establishing on a trial basis of a centralized MARC collection-and-dissemination operation, perhaps (but not necessarily) at the Library of Congress. This would enable trial processing to take place at the various recipient libraries of the resulting merged MARC tapes.

This recommendation is magnetic tape oriented, even though I expect that the ultimate national bibliographic network will be linked by electronic communications links on at least one level. We will probably see this network develop on more than one level, in that the network would continue to disseminate bibliographic information through centrally produced hard copy (e.g., books, microfiche) as well as through electronic communications links. I don't expect the National Union Catalog as a printed document to disappear entirely and be replaced solely by a network of wires. What I have in mind is something like the system at the National Library of Medicine which uses a single data base both to produce a hard copy publication (the Index Medicus) and to operate an interactive information retrieval system (MEDLINE).

Earlier in the day we heard both Mr. Canham and Mr. Cuadra express some interest in the question, "Who pays?" We also heard allusions to the expectation on the part of some that the federal government should cover all costs. I believe that many librarians feel -- and I know that many at Yale do -- that they would be willing to pay real money to the Library of Congress to allow LC to increase the portion of its cataloguing output that is transcribed into machine-readable form. This actually would be not without precedent. The

early PL-480 arrangement, I believe, called for participating libraries to contribute financially toward the cost of the program.

These have been just a few, rather disconnected, comments, supplementing my written testimony, which I hope was somewhat more coherent. I would be happy now to answer your questions.

Mr. CUADRA: Dave, you made a comment in your paper about multi-directional exchange of MARC records. Were you thinking of anything analogous to the ERIC System where the cataloguing is in some sense decentralized or shared among institutions, or what did you mean by "multi-directional"?

Mr. WEISBROD: I'm not intimately familiar with the ERIC system but my impression is that it entails a kind of delegated responsibility through which it is determined ahead of time that certain fields of interest are going to be covered by certain clearing houses. That is not what I had in mind. My concern is one that is shared by a number of people who have been getting together as a working group (with transportation paid by the Council on Library Resources) to address the problem of building a comprehensive national bibliographic data base in machine readable form. The people are drawn from institutions, such as Stanford University, the University of Chicago, and the Washington State Library, all of which are either producers or consumers (or both) of computer services which exploit bibliographic information in machine readable form. Their concern is that right now, except for private bilateral agreements, there exists no way for any of the others, i.e., for library A to distribute its machine readable cataloguing to libraries B, C, and D. This is the kind of multilateral exchange in mind.

The RECON report, of course, is oriented toward pouring it all into a funnel of national scope and having it come out in a computer-produced printed NUC, perhaps followed in time by a supplementary MARC distribution service; if you will, a "machine-readable NUC." And I certainly hope that that will

come to pass ultimately because uncontrolled multi-lateral exchanges may tend to be duplicative and expensive. Let's get back to my suggestion for a centralized MARC collection-and-dissemination operation. One might call it experimental, but the word "experimental" has a suggestion of hypothesis and verification useful to see either multi-lateral exchanges or a kind of unfiltered centralized exchange such as I just described, which would entail merging with no attempt at "laundering" (such as the laundering the NUC office now performs on the main entries of the items listed in the NUC), just to learn what individual libraries can do with each other's machine-readable cataloguing. This operation would be a trial or model in the same sense as the MARC Pilot Project, in which we sent out tapes to sixteen libraries just to see what would come of it.

There was a conference that Mr. Becker chaired (the Conference on Inter-library Communications and Information Networks, sponsored by USOE and ALA, Almie House, Warrenton, Virginia, 1970 September 28 - October 2), and there was a technical subcommittee that met in the course of that conference that was concerned not with the organizational or financial aspects but the technical aspect of putting it together. And many of us in that group felt that competition was a good way to sort out the good ideas from the bad. The national bibliographic network will comprehend regional networks of varying design. Consider, for example, that the BALLOTS system (at Stanford University Library) does not look like the OCLC (Ohio College Library Center) system. The intent of this statement is not to praise either system, nor is it to denigrate either one. These two systems reflect very different design concepts, oriented toward different goals, and it's only by trying them both out and seeing what users actually use that you gain an idea as to what really is important to provide.

Now, it may be possible for someone to plan a series of coordinated

trials. As a parallel one may note that between the fall of 1957 and now, space exploration has taken place with a series of intermediate steps coming along. We didn't send a man to the moon first off. We had to develop a number of stepping-stone-like technological plateaus, many of which represented a duplication of design, a trying of competitive approaches, some of which were wasteful and some of which were not. But I certainly would not have liked to be the first guy going to the moon if there hadn't been a Mercury program before Apollo, and I don't think we ought to do that to libraries either.

Mr. BECKER: Dave, as you know, there are diverse ways in which bibliographic data is being placed into machine-readable form today. Washington State has chosen to go straight down the MARC path and do it exactly the way the Library of Congress does. OCLC has departed from MARC to a certain degree. The UCUC (University of California Union Catalog) cataloging, CALAN-1 up in Canada have been modifications of MARC but have not hit it right on the head.

There has been expressed, both in your informal meetings and elsewhere, the need somehow or other to settle on one way to go because it is going to be of benefit not only to the organizations that are involved in it now but to everyone else, the aim being to increase the critical mass of machine-readable data that the nation possesses. This takes enforcing. That is the enforcement of a standard. There is, at the present time, no administrative body responsible for doing this. In the interim, what are the possible ways of avoiding going down different paths and of making certain that we stay on a single track for the benefit of all? Have you any wise words on that subject?

Mr. WEISBROD: Not very many. That problem certainly existed before the invention of computers. The problem of whose submission to the National Union Catalog looked nice and whose didn't, I am sure existed before. But the computer does make the problem more intense.

We do have one model of a solution at the Ohio College Library Center, where peer group pressure seems to be a very strong force. There was one library that had very consciously taken what we might call a maverick approach toward completeness of bibliographic records, which, after being subjected to enough hammering away by other member libraries, reversed its position. I do not know whether the membership of the Ohio College Library Center would have kicked that library out ultimately. I am pleased to say that it didn't come to that. And I would hope that that kind of mechanism would tend to be the operant one in the future. That is in response to the enforcement question.

In response to the standard question; the question is, "What is the standard that you are trying to enforce?" One aspect of this question is the matter of completeness. The degree of completeness (or fullness) required of a catalog record depends on the functions for which it is intended to serve. It may develop ultimately that we will be able to admit catalog records of varying degrees of completeness into the "national data base" -- whatever that may turn out to be -- with the degree of completeness dictating which ones of the many possible functions the record can be used for. The question of completeness of cataloging seems to be one to which trials of the sort I described earlier will be important, as librarians tend to be more clairvoyant than the general population.

A second aspect of this standard question is the matter of record structure. Here we are on very firm ground with the American National Standards Institute (ANSI) standard Z39.2, which very clearly defines the structure of records for bibliographic information for interchange on magnetic tape.

The third major aspect of the standards question is that of content designation, i.e., what data elements shall be represented by what codes.

The critical work here is that of the Library of Congress, in its MARC format publications (for books, serials, maps, etc.). These publications have been adopted as standards by the American Library Association (on 1968 January 10, at the Midwinter Meeting in Bal Harbour, the ISAD Board of Directors unanimously approved the endorsement of "the MARC II format as a prospective national standard"). Although this adoption was a major step forward for American librarianship, these publications are by no means fixed forever, but are undergoing evolutionary development as our experience increases and our needs change.

Mr. LERNER: I am surprised to see as one of the major technical problems the production of multi-font displays and hard and soft copy. Why is that a major problem? I would think that point size or size of copy would be more meaningful, and I do know that there are machines which can in fact produce multi-font displays with a number of types of input.

Mr. WEISBROD: I am not an expert in this field, but certainly most computer line printers would not have a character repertoire at a single moment in time without changing the print train to both the Roman alphabet and seriffac. You have to go to a fairly sophisticated typesetting device for you to get that.

Mr. LERNER: I know of the Harris 2200 or various machines like that which could do it.

Mr. WEISBROD: You are not going to have either one of those with a local terminal in every library, are you?

Mr. LORENZ: Some months ago, Dave, we heard about the embryonic research libraries, a new kind of consortium of New York, Yale, Harvard, Columbia, I believe.

Mr. WEISBROD: Yes.

Mr. LORENZ: Is it too early to say what might be developing among this

group that might have significance for a national network plan?

Mr. WEISBROD: Since I am not designated an official spokesman of that group, I would rather avoid that question except to say that a planning study is presently under way. It is a three-month planning study which began on July 15. We expect it to terminate on the 15th of this month. The chief planner is Joseph A. Rosenthal who is the Associate University Librarian at UC Berkeley, and it is hoped that about a month after the planning study is over, he will have a report for the four librarians, and I cannot try to second-guess what is going to be in that report.

Ms. WU: Would you suggest that in the future when the federal government is funding the libraries, will you consider the policy in your first paragraph? You have it down as the poverty problem. Would you consider the poverty area the first priority to get the funding or to give more money to the poverty area?

Mr. WEISBROD: I was referring just to the general area of cutback of funds for libraries. I wasn't referring to the depressed areas. I realize that there are many aspects of the national problem of libraries and library priorities, and I would defer to the wisdom of the Commission and not try to suggest any priorities of my own.

JOHN LAUCUS
Director of Libraries, Boston University
Boston, Massachusetts

WRITTEN TESTIMONY

Thank you for the opportunity to submit written testimony to the Commission.

First, I should like to urge the Commission to concentrate its efforts on the Library of Congress' role as a national library. LC has been as innovative and responsive to this role as has been financially possible. But the responsibilities grow geometrically in progression, especially in the recent anxiety over compatible automated records for library network use:

Some of LC's programs, such as Cataloguing in Publication, are funded by grants from the Council on Library Resources and the National Endowment for the Humanities. It seems to me that such grants should be used to enlarge and speed up the program, and regular government funding to keep it going, there being no question as to the value of this program to libraries and publishers alike.

The National Program for Acquisition and Cataloguing and the Shared Cataloguing Program have so improved the early availability of cataloguing records (doubled output since advent of NPAC) that libraries have been able to provide service on their holdings more quickly with no additional staff or, in some cases, a reduction in staff. Had it been possible for LC to implement its card printing and distribution faster than its budget and the exigencies of government offices allowed, the card service and resultant savings would have been more dramatic.

While MARC has expanded from its records of English language monographs to include motion pictures, filmstrips, slides, and the beginnings of French language monographs, the further development of MARC for other languages and other media is obviously needed as well as the development of peripheral services. The annual report for 1972 expressed a need for funding to provide automated name reference information in LC's catalogs and for distribution in various forms. The projected eighth edition of LC subject headings should be speeded up so that the necessary reexamination of the entire system of headings for philosophical and terminological updating can be accomplished as soon as possible and displayed in a greatly revised ninth edition.

The most urgent area of all is in serial publications, where several things are happening: the development of the ISBD-S, the National Serials Data Program, the MARC Serials Distribution Service (newly catalogued or re-catalogued items, no retrospective in the near future), and the demand at the grass roots level for a national machine-readable union list of serials. The NSDP is assigning ISSN's and "Key Titles," but has only about 700 records for its data base. Administered by LC, but including the NLM and the NAL, the NSDP still "seeks outside funds insofar as possible." Libraries must demand increased support for one or both (MARC Serials and NSDP) systems; or some combination and compatibility. The alternative is to face the expense of local conversion of serial records with the attendant problems of entry reconciliation.

This problem of serials requires much study before the best solution can be reached, and there are many competent librarians whose knowledge can be used in an advisory capacity. Identification of this problem as a national concern with funding to conduct the study necessary to develop a system which incorporates the best of all methods seems to me a real priority.

The remarkable fact, I believe, is that the Library of Congress has been and is able to do and serve and respond as well as it has in so many areas. Its reward should certainly be the constant concern of the library world for the health and prosperity of the Library of Congress in its role as the National Library.

Second, I should like to plead that the Commission take what steps it can to support the repeal of the Tax Reform Act of 1969. Nationally, donations of self-generated manuscripts to libraries have virtually halted. Until

the 1969 Tax Act was passed, an author who donated his manuscripts, letters, or other papers to a tax-exempt library or university was entitled to take a charitable deduction equal to the fair market value of this property. The 1969 reform law "accidentally" deprived authors of the right to take charitable deductions for such contributions.

H.R. 3152, introduced by Hon. Wilbur Mills, calls for a fifty percent restoration of the tax benefit. S. 1367, introduced by Senator Frank Church, and passed, would allow a fifty percent benefit. This latter bill was defeated in the House. H.R. 2152 and H.R. 697, introduced by Hon. Ogden Reid and Hon. Edward Koch, call for full restoration of the tax benefit. The American Library Association in testimony submitted to the House Ways and Means Committee has supported this move for full restoration. S. 1510 and H.R. 6764, introduced by Hon. Jacob Javits and Hon. John Brademas, call now for a seventy-five percent restoration.

The situation is at the present time too fluid. The diversity of repeal bills submitted suggests that too little is likely to be accomplished in the direction of repeal until libraries, universities, the Authors League, and writers themselves draw up a uniform repeal bill and lobby with Congress for its passage. The Library of Congress reports that its manuscript donations dropped from 283,528 items in 1969 to zero in 1972. Columbia University Libraries have reported a ninety percent drop in manuscript donations.

Neither institution will accept manuscripts on a deposit basis; the Boston University Libraries do. Thus, our own statistics are not as dramatic, although we too have lost collections, and additions to collections, due to the current tax law. Authors are holding on to their papers, awaiting a change in the law or anticipating the sometimes futile hope of selling their materials in the open marketplace. The only ones to gain from the tax law have been the manuscript dealers. (I would assume that additional revenue generated by this law for the Federal Government has been minimal.)

It is not only a question of an author's papers being unavailable for scholarship, and scholarship in general eventually suffering from this, it is the more basic fact that papers retained in a private establishment are subject to theft, water, dampness, fire, dry-rot, vermin, excessive heat, foxing, destruction, loss. Unlike a book - no matter how rare - no other copy of a manuscript is likely to appear once gone. Repositories preserve for posterity. The current law is diametrically opposed to that.

Again, thank you for this opportunity. Congratulations on the work of the Commission to date, and best wishes for future success.

Mr. LAUCUS: Thank you, Mr. Chairman.

Earlier today the question was asked, "What are the needs and wants of the library user and what does he deserve?" In my experience, what a user wants when he comes to a library is a specific piece of information in book or other form. A user's wants are generally immediate. He wants his infor-

mation or his book right now. The user's need for the information is generated by some force. In a personal situation, this may be a self-generated internal force: the desire for educational self-enrichment; or it may be an external force; for example, the pressures of the best-seller lists or of the Today Show to read a book while it's still new.

In a working situation, whether the work done is profit-oriented or scholarly, the user needs the information in book or other form for the completion of some task. In an academic situation, whether it be at the elementary school level or at the doctoral level, he needs the information because he has been required in one way or another to get the information.

What the library user deserves, I think, is a library system which will provide some guarantee of satisfaction of his needs, a system in which someone, somewhere, will identify, collect, catalog, preserve and give access somehow to information which will be needed either at present or in the future.

No library can provide guarantees to satisfy a user's wants on an immediate basis, because either it may not own the information which the user is seeking the piece containing the information may have been preempted by another user. No library, even one with an encyclopedic collection, can afford to acquire or house every piece of information potentially useful to every member of its direct community, as the Commission's draft report points out. Further, if I have the library's only copy of the book, you can't have it right now, and the Commission can do nothing about that.

This inability to satisfy user wants immediately is unfortunate, partially because in many cases the library's users are also the library's financiers, taxpayers, academic administrators or business executives.

Two points made earlier today: First, that many large research libraries do not know what they have in their own collections. I agree with that point and would expand it by saying that many small working libraries

do not know what they have in their own collections. The phenomenon of the incomplete catalog and the phenomenon of the cataloging backlog are, unfortunately, far too common.

The second point was that librarians, faced with handling increasing masses of materials, tend to think in mechanical terms. I agree with that point also, but I would modify it by adding that librarians tend to think mechanically so that they can make information available to human users as quickly as they can.

The potential functions of the Library of Congress as mentioned in the Commission's draft -- among these, expanding machine-readable cataloging, expanding the MARC data base retrospectively, distributing bibliographic data on line, expanding the work done on serials -- show that the Commission recognizes the need to think mechanically for the human purpose of getting the information to the user and freeing librarians in the field for other service activities.

The question was asked this morning about the pitfalls in establishing inter-institutional cooperation. One major pitfall which was mentioned is in the attitudes of the librarians considering cooperation: the fear of change, fear of loss of autonomy.

I think another major pitfall is in the attitudes of the users whom librarians are trying to serve through cooperation. I quote from a non-scholarly periodical, Esquire, an interview with the founder of one of the term paper factories:

"I started Term Papers Unlimited when I had a paper to write and ran all over Boston looking for books. Do you know how many libraries there are in Boston? I was struck by the inefficiency of the process. For six hours of reading, I had to spend three days on the MTA. So I figured if a student could hire someone to

do the research, he could save himself a lot of time. Students have a lot to do and are not going to learn anything running from one library to another, looking for a bunch of books, half of which will be charged out or missing anyway.

"Last year the presidents of half a dozen colleges here in the Boston area met to discuss what to do about the term paper problem, by which they meant me. Now these are college presidents who have 50,000 students on the sidewalks ready to burn down the libraries, and they never got together before. So if they are getting together now, they must be in a panic."

I would point out that for a network of any type to succeed, the users have to believe in it. Library users and library financiers are going to have to continue putting time into getting their books and their information, and they are going to have to realize that no matter how effective an information network or a lending service is established at whatever high cost, they will have to wait. Their wants to get their information now likely will not be satisfied, although their needs for the information through a system hopefully will be. Any survey in any educative process which this Commission undertakes will have to make library users and library financiers realize this. I think that librarians deserve that. Thank you.

Mr. STEVENS: John, I would like to go back to the first point you mentioned, the idea of what the user wants, and I know you spoke to it from what you said you observed in your academic community.

I wonder if from that observation point you could speak to the idea of our understanding better what the user needs for information when the user himself can't define his problem or can't define his needs -- and that I know happens on the academic campus as well as it does off the academic campus -- and what the library can do about helping the user to define his needs. Are

we really in the business of some rudimentary effort, remedial effort with the user in order to help define those needs so that in turn we can fulfill his desires and create a library situation in which he achieves what he wants through a system?

Mr. LAUCUS: Yes. The concept of the reference interview, as I learned it in library school, being done by librarians with students, with library users, prior to the user's appearing in the library is feasible, and I think this can be done and is being done in some academic libraries.

I know that our own reference people are spending time with incoming freshmen, trying to educate them on the use of libraries.

Mr. STEVENS: The reference interview, then, is being used in teaching the user how to ask a question. Is that the key?

Mr. LAUCUS: Even prior to his appearing as a questioner. That is the reference interview without a reference question.

Mr. LORENZ: Just as a point of information, I am glad to report to you that the Cataloguing in Publication program is now going forward with appropriated funds. The Library of Congress usually uses grant funds for study and research development phases and then beyond that goes for appropriated funds, and we were successful in the Cataloguing in Publication program in using that cycle.

Ms. MOORE: Thank you very much, sir, for your testimony, and we invite your continued interest in the program.

WILLIAM N. LOCKE
Foreign Study Advisor, Massachusetts Institute of Technology
Cambridge, Massachusetts

WRITTEN TESTIMONY

This is in response to your kind suggestion that I submit written testimony to the National Commission on Libraries and Information Science prior to

its New England regional hearing.

Let me first introduce myself. I am William N. Locke, residing at 25 Berkshire Road, Newtonville, Massachusetts 02160. My education was in the liberal arts at the Phillips Exeter Academy and Bowdoin College with an emphasis on foreign languages, culminating in a PhD. in romance philology from Harvard in 1941. I taught French at Harvard, Radcliffe and M.I.T. for a number of years. After two years of psychological warfare service in Europe I became Head of the Department of Modern Languages at M.I.T. in 1945. Eleven years later I was asked to be Director of Libraries, which position, I held for sixteen years, taking partial retirement and my present position as Foreign Study Advisor in June, 1972. During my years as a librarian I was active as an officer and on committees of the Association of Research Libraries, the American Society for Information Science and the International Federation for Documentation.

To turn to my testimony, I should like to address myself to No. 6 of your proposed topics: The Library of Congress as the National Library; its responsibilities and authority. First may I point out that the formulation of this topic finesses the fundamental question which should be asked: Should the Library of Congress become a national library? Then there is the curious use of the definite article which disestablishes the two fine existing national libraries, in favor of the Library of Congress as "the National Library."

In the following I shall discuss the conditions under which the Library of Congress should be made a national library and responsibility for bibliographic control of U.S. and foreign publications.

The Library of Congress has provided both direct and indirect services of great value to the American people since it was founded in 1800. Inter-library loan and photocopy were early and valuable contributions. The legislative reference service has a particular impact on the legislative branch and on legislation which may ultimately affect the life of every citizen. Less known to the general public are its bibliographic services. These have been of great value since card distribution started in 1910. There are few major or even medium sized libraries in the country which do not have LC cards in their catalog and LC bibliographic publications on their shelves.

Some people feel that the Library of Congress could be strengthened and provide better leadership and more services if it were made a national library. Nationally and internationally the name change would add dignity and status to the largest library in the U.S. and one of the largest in the world.

There is another point of view. As LC has grown bigger, it has grown unwieldy. The Center for Research Libraries has had to be set up to handle storage and loans of uncommon books, foreign theses and certain journals. It is now proposed that we need a number of similar regional lending libraries. More and more the contributions of the Library of Congress to the library world* are primarily bibliographic.

Unfortunately, it seems that as long as the Library of Congress continues in the legislative branch and owes its first allegiance to the Congress, its bibliographic services will not be designed to meet the library and informa-

* For convenience "library world" is used to include libraries, information services and the public they serve.

tion needs of the rest of the country. Its cataloguing and classification schemes are designed primarily for internal use, as are the Marc projects and shared cataloguing.

There may be an exception in the case of shared cataloguing but it is hard to tell how far LC has led and how far it has been pushed by the American Library Association and the Association of Research Libraries. Time after time the library professional associations have urged the LC to take steps which would benefit the library world and have supported its requests for additional funds before Congressional committees only to find delay after delay when it comes to carrying out the plan. This is true of plans for expediting cataloguing. Another example is the "cataloguing-in-source" proposal of the late 50's to have LC catalog card copy printed in each book. This foundered on LC's refusal to cooperate, though nothing could have been more effective in speeding the putting of books on the shelf and cards in the catalogs of libraries all over the world. "Cataloguing in publication" which is similar but less useful to libraries is now being tried.

In still another case eight years ago after five years of study and detailed recommendations by an ARL Committee, LC agreed to undertake "a national program for the preservation of deteriorating books," but it now appears that LC has reneged on that promise.

We have a fine example of what a national library can be in the National Library of Medicine which has provided outstanding leadership and service to the medical libraries and the medical profession. Through its photocopy service, then Medlars and now Medline it stands out far ahead of the rest of the world in applying modern technology to bibliographic and text access for a nationwide and even worldwide public in the health sciences.

Let us consider a model of an ideal national bibliographic situation. Every publication is catalogued before printing, perhaps part of the copy-right procedures. The process is coordinated by a National Bibliographic Center with the cataloguing being done by different research libraries across the country. The catalog copy is transmitted to the National Bibliographic Center's data bank and from there it is quickly available by modern technological means.

The simplicity of this model is appealing. Nothing in it is untried and it can easily be extended to other countries. The difficulties are the usual ones, vested interests and shortage of money. When the need is strong enough, vested interests give way and the money is found. In this case LC would need to be divested of its half hearted interest in bibliographic service to the library world. The cost of the proposed decentralized cataloguing operation would certainly be less than that of the present centralized plus decentralized cataloguing that still goes on with endless duplication all over the U.S. Access networks comparable to those of the Ohio College Library Center would have to be paid for but the rapidly growing success of OCLC and similar services indicates that this would offer no serious difficulties.

The National Bibliographic Center combining the bibliographic activities of LC, NAL and NLM with those of the National Technical Information Service would give complete coverage, not only of monographs, but also of serials and technical reports. It would provide the kind of service orientation which the library world needs.

The administration of the National Bibliographic Center could logically be put under the National Bureau of Standards but in view of the trend toward withdrawing federal support from public services, the library world is undoubtedly going to have to pay for bibliographic services received. The choice will be to buy them from commercial suppliers or run them ourselves. The device of a semi-public corporation should be considered, following the pattern of public interest and public service in Comsat, the Public Broadcasting Service and the Post Office. With a Board of Trustees drawn from Government, the library world and the public, some financing might be provided by the Federal government.

To return to the Library of Congress, the decision whether it should become a national library would seem to hinge on the answer to one question, can it be turned around 180 degrees so that its first loyalty is to the library world and service to Congress has second priority? Putting it another way, can one realistically expect Congress to accept this change in priorities for its library and vote adequate financing?

If the answer to these questions is "yes", then it is possible but still not necessarily desirable, to transform LC into a national library. Even if this is done however, it is far from certain that a nationwide bibliographic service should be attached to it.

If the answer is "no" LC would be a national library in name only - not a useful concept. And in that case the Library of Congress should clearly concentrate on providing service to Congress and acting as a research library for the Washington area but no longer attempting to supply the bibliographic needs of the library world. The National Union Catalog could be incorporated into the National Bibliographic Center data bank as far as desirable. LC's processing departments could be substantially reduced in size thus solving their chronic space and manpower shortage.

Real bibliographic control of all published material in the U.S. is not a new dream, it is an old nightmare. Bibliographic services need to be coordinated, expanded and redirected towards the goals of maximum service. After many years of waiting it is clear that LC cannot or will not take up this challenge. Private industry is helping with some services, regional organizations with others. With the help of the Commission the research libraries of the country will have to take the lead in planning and executing a solution.

Mr. LOCKE: I might comment briefly on the draft statement which I received in the mail the other day, if you would like. I will not make editorial comments, but I would be glad to hand a copy of the draft with some editorial comments on it to any appropriate person. I will only make more general comments.

Ms. MOORE: If you will hand that to our Chairman, Dr. Burkhardt.

Mr. LOCKE: As you can see from my rapid turning of pages, I have very

little to add. On Page 5, however, there is one comment that I would like to make. In the middle of the page at the end of the second paragraph there is the statement:

"However, others are already experimenting with inter-active computer time-sharing networks for data retrieval, and still others are investigating future use of electronic communications for the routing of whole books and documents from one place to another as an alternative to mail."

I think this, at present cost, is expensive. If you can get free communications networks, it won't be. But it will be time-consuming with present technology. It takes a long time to send an 8 1/2 by 11 page over telephone wires. You would have to have microwave links, and this is very expensive. But, of course, if somebody else pays for it, it's fine. I have some information on that subject in an article that I wrote, "Computer Cost for Large Libraries", which I am sure is available to the committee. I have a copy here if you would like.

Now on Page 8, as a further comment I would like to suggest deletion of the second paragraph. I think it's incomplete, and I think the last sentence is wrong. I see no reason to believe that we "have more knowledge and data within our own borders than any other country." I suggest that this is an unnecessary insult to other countries.

On Page 10 under "Organization," perhaps I will just read the note that I have written at the bottom of Page 10:

"Whatever solution is found, short of putting this (and "this" is the new operating organization) in the legislative branch, which would be wrong, there will be a building conflict of interest between this organization and the Library of Congress.

See Page 13."

And that refers simply to Page 13, which is on the role of the Library of Congress. My statement bears on that topic:

I believe there is a conflict between two statements on Page 12, the first sentence on the page and the second indented paragraph below on the page.

The first sentence says that the Federal Government would fund those aspects of the program of common concern nationally, et cetera, and the States would fund libraries within their own jurisdictions.

The second indented paragraph below on the page says "financing the State share of its obligation to the national program and State library development according to formulas which take the entire state population into account."

Perhaps there is no conflict, but it seems to me possible that there is.

I also would suggest that in that second indented paragraph the formulas that are needed are weighted formulas, to take into account the type of population distribution within the State. If you have different ethnic groups, if you have industrial versus agricultural states, the needs obviously are very different.

That ends my substantive comments on the draft, but I would like very much to transmit to you my editorial comments which are one or two per page; and for a draft, that is really very good. I think the draft statement is excellent, and I would certainly support it.

Chairman BURKHARDT: *You have a rather, shall I say, atypical view of the Library of Congress as far as we have heard, at any rate, and I think you raise a number of questions. If I understood it correctly, you are saying the LC is not now a national library or certainly not the national library in any de facto sense and that a lot has to be done in order to make it the national library; I guess on that part we would agree pretty well. But you are concerned about whether it should be made the central biblio-

graphical reference place for the country and be responsible for various other functions that we would think of as being done by a national library if we were ever to have one.

I would like very much to have Mr. Lorenz, who must have reacted very definitely to what you had to say, put some questions to you and perhaps have a little controversy going.

Mr. LORENZ: I don't want to get into a controversy, but I would say that from my direct knowledge, Bill, you have grossly underestimated the amount of coordination and communication and cooperation between the Library of Congress and the other libraries of the country. I think there is practically no program that we plan or develop in which we do not have extensive discussions with the major libraries and librarians of the country, particularly through the Association for Research Libraries. With reference to the development of standards, for example, I would say this is certainly true; we work very closely with the American Library Association as well.

And in terms of some of our most significant programs which we have planned cooperatively, I would say the national program for preservation and cataloguing has almost unanimous support of the libraries of the country. The Cataloguing in Publication program to which you refer is now not only being tried but is an ongoing program with Congressional appropriations and making great strides. And in terms of the preservation program, our funds that we are getting from the Congress for preservation purposes have increased remarkably over the past ten years. So I think you have just generally underestimated what the Library of Congress is doing and hopes to do more of in the future.

Chairman BURKHARDT: Would you not also say that in one sense at least it is an exaggeration to say, as I think you do, that the services to Congress have priority? Of course the legislative reference service has a

priority and it is the Library of Congress in that sense and very much so, but one cannot say, as far as its budget is concerned and all of that, that Congress puts the largest sum of money in for that service. I think in toto the legislative reference service is what percent of your budget?

Mr. LORENZ: Less than 10 percent.

Chairman BURKHARDT: The remainder is for other things such as MARC and various services that go further than the Congress or even the government; right?

Mr. LORENZ: Yes, of course.

Chairman BURKHARDT: Well, I want you to respond to these things. If you think we have got it wrong, we would like to know.

Mr. LOCKE: I understand John's position. John has a job to do, and he couldn't very well take any other position even if he thought differently. But don't think that I think he thinks differently, because I am sure he doesn't.

Nevertheless, it would hardly be possible for a member of the staff of the Library of Congress to come here and agree with what I am saying. This is a very uncomfortable position for me to be in. I realized in writing that document that it would not be popular among my friends on the staff of the Library of Congress or many of the former employees.

Mr. DUNLAP: Former friends.

(Laughter)

Mr. LOCKE: With some of my former friends on the staff of the Library of Congress or other places.

I, however, reflected a long time before writing that paper, and I would be happy to hear any further objections, but I remain unconvinced that my position is wrong. For one thing, there is one very fundamental consideration that bothers me here. It is so trite that I hesitate to raise it and

yet trite things are often trite because they are true.

No man can serve two masters. As far as I am concerned, the Library of Congress should be either a national library or the Library of Congress, not both, and it should see its role as a national library that is responsible to the nation, not through Congress but through the libraries and the National Library system, because the libraries of the country are the agents of the users of libraries, and the national library should be the agent of those agents. It should be an agent directly responsive to the needs of the users of the libraries, not filtered through the members of Congress who have too many irons in the fire, too many things to specialize in any one thing.

The library profession is a very complex and difficult one. I was only 15 years in it, and many people would think I didn't learn nearly enough in 15 years. I think so, too. Nevertheless, I am aware of the difficulty and complexity of it. But I do feel very, very strongly that it will not do to have Congress holding the purse strings for this directly, particularly if the name is still Library of Congress. This is a very bad situation. If the name disappears and it is called the National Library, then it will be better.

Chairman BURKHARDT: Congress holds the purse strings on everything.

Mr. LOCKE: I realize that very well, but the administrative departments are a lot freer than the legislative, freer of direct control than the legislative departments.

Chairman BURKHARDT: I don't want to get into an argument with you. We have a number of people who also want to question you: Mr. Dunlap and Ms. Scott.

Ms. SCOTT: My concern was about your statement on the preservation of deteriorating books. John has spoken to it. What further would you recommend that the Library of Congress could do beyond the program they already

have in effect? I am with the Smithsonian Institution. We also have an interest in preservation.

Mr. LOCKE: What I am concerned about is that it has taken so long to get the program started, and there isn't any visible sign yet of a program which was planned very carefully years ago and which may now be rolling; but like many things done in the world, they take a long, long time. And one frequently wonders why they take so long, whether it is a lack of interest or lack of money -- which reflects a lack of interest -- or whether it is a matter of priority. I don't know what the cause is, but I do know that there were definite promises made many years ago -- I stated the date and I can't remember it -- and these promises were repeated in similar form a good many years later after ARL had set up a new committee and restudied the whole question. I suppose this new committee and restudy was necessary, because nothing had happened during the interim of a number of years. And I just wonder whether it is going to happen again.

Mr. DUNLAP: I had one minor point. I appreciate your right to say what you think, Bill, about the Library of Congress. I happen to disagree with you. I think they do a very splendid job.

Mr. LOCKE: I hope you read the second page of my statement. I think they do a very good job, too.

Mr. DUNLAP: I am a former staff member and worked on some of the things they have done. I worked for some years in the manuscripts division, and the Library of Congress certainly deserves credit for many things. They didn't do it alone but spearheaded it and provided the style necessary for the prescribed manuscript collections, and they got the job done.

One little editorial note on your statement on Page 2 where you say as LC has grown bigger, it has grown unwieldy and that the Center for Research Libraries had to be set up to handle storage and loans of uncommon books.

would submit that this is not historical. MILC, the predecessor of CRL, was set up by the presidents of about a dozen mid-west universities primarily as a depository library.

Mr. LOCKE: Yes, but I didn't refer to MILC. I referred to the Center for Research Libraries. I think its function is now quite different, and it is being taken over by ARL because it has a different function. It no longer serves only the mid-west library area.

Mr. DUNLAP: The MILC was transformed into CRL but not with regard to CBT yielding the function at LC.

Mr. LOCKE: I have heard much criticism of the inability of the Library of Congress to provide interlibrary loans; that LC does not handle foreign theses any more; that they have all moved to the Center for Research Libraries. This to me is an important area because I have been in an academic library. LC doesn't have a lot of the journals which are in CRL. Little by little it seems to me CRL is taking on a number of functions that would belong to a national library.

Mr. DUNLAP: I don't deny it has taken on some of these, but you state that CRL had to be set up to handle some of the things that it is now doing because LC had grown to be unwieldy. I just dispute that.

Mr. LOCKE: Maybe it was an unfortunate way of presenting it. Perhaps I have clarified my opinion in this discussion.

Mr. LERNER: I think Mr. Locke has one point that we have all been overlooking, and that is that the process by which the Library of Congress becomes anything is a legislative process and a political process, and it seems to me that we have not thought through the politics, quote-unquote, of all of this before we move any further. That is my only comment.

Mr. AINES: I don't know whether I am trying to get you off the hook or not in my question to you, but in your last statement you suggest that, with

the help of the Commission, the research libraries of the country will have to lead in planning and executing a solution, a solution dealing with bibliographic control. How realistic do you think this is?

Mr. LOCKE: This may or may not be realistic, but I feel that the research libraries of the country and the Library of Congress have been convinced for many years of the need for better, more complete bibliographic control. It is impossible, I would say, to be in the library business and not realize how central this is to the operation of any library or information facility of any kind.

One of our big problems is to know what is being published and where you can get it. So the research libraries are very eager to assist in anything that can be done to improve bibliographic control and access. I did not mention access but, of course, that follows on: as soon as you have got the control, then you need the access.

So that's why I feel that the research libraries should be called upon even more than they are to work not only with LC -- I haven't mentioned the two national libraries but I would like to, because we have two national libraries, and I was particularly offended by this use of the term the national library when we have two which are outstanding, particularly the Medical Library. I think the National Library of Medicine has done some extraordinary work which LC could have pioneered in.

Incidentally, the National Medical Library is an example of the sort of relationship I would like to see between the other national library, if you will, the third national library, and the professional groups and the users of the country. The reason the National Medical Library has been successful is its very close working relationship between itself, the medical libraries of the country, and the doctors of the country.

Now I am posing, I think, an extremely difficult and perhaps an impossible task for any general national library to have this sort of close working contact with all the other professional groups, except agriculture, of the country. Yet

this is the real way to get understanding of user needs and user support, which means money to run an information service and libraries.

Chairman BURKHARDT: On your point about consulting the research libraries, you are no doubt aware of the report on research libraries that was made by an ACLS Committee for the Advisory Commission on Libraries. This committee was composed almost entirely of research librarians, and their recommendation was to turn the Library of Congress into a genuine national library, calling it The Library of Congress, the National Library of the United States, and then adding functions and all that sort of thing to it. But the research librarians did not go so far as to recommend that sort of status that you are recommending, possibly because they felt it was unrealistic.

Mr. LOCKE: It may be unrealistic.

Chairman BURKHARDT: They had been asked for their opinion and their planning, and their planning is there. I am sorry to say that the report is now seven years old and nothing much has happened to the recommendations, but nevertheless they are in the picture.

Mr. LOCKE: It is difficult for the Association of Research Libraries to make any recommendation which would make the Library of Congress unhappy because the Library of Congress is a member and is well represented by former staff members.

I might say that to me one of the most striking successes of the Library of Congress -- I have noticed this ever since I have been in the library business -- is the loyalty of former employees.

Ms. MOORE: I was a member of the old Advisory Commission, and I recall this argument going on in that Commission about our recommendation. It was not because of any fault we found with the Library of Congress at that time or now, but in discussing it then, we were concerned about the pride of Congress in the Library and that they would not take kindly to it being a national library, and that is something that hasn't been brought out today.

Mr. LOCKE: That is part of my point. That is why I think that unless it becomes a national library in fact and not only in name, the traditions are going to be too strong.

You see, I feel the working relationship between the national library and the research libraries, probably the Association of Research Libraries, should be a working relation not of the superior to the inferiors, which it is today in many ways. The Library of Congress in many ways calls the tune. I often feel that for LC consulting ARL is a formality; that decisions are made first -- and I am going way out on a limb now, and I am sure people from LC would like to argue on many matters where this is undoubtedly true -- nevertheless, there is always a feeling that I sense in meetings of ARL that when the Library of Congress speaks, everyone is careful what they say because, obviously, LC is a very important, very large organization.

This should not be the relationship between the national library and the major research libraries of the country. There should be a relationship of equality there. They should meet on a footing of equality in order that the best ideas can be put into effect.

Mr. CUADRA: I don't think you are the type that is cowed by having atypical views, but I would just remind everyone that the young fellow who pointed out that the Emperor's new clothes were somewhat different than had been perceived also had an atypical view. I think the questions you have raised are very legitimate and cannot be evaded and I hope that this Commission will be able to push for some answers on them.

Mr. LORENZ: I would like to clarify for a moment what Ms. Moore said in terms of Congress' attitude toward the Library of Congress. Since nine-tenths of what they appropriate for the Library of Congress is for national library services, I think that you should understand that most of their pride in the Library of Congress is in terms of its national library services and not what they derive from the Library themselves in terms of their own reference and research services.

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In terms of the preservation program, Bill, I hope you are reading our most recent annual reports because these do reflect the tremendous strides that we have taken in the preservation field. We now have a laboratory of over 30 people doing research and development in this area and a large restoration program. So I hope you are keeping up to date with what is going on.

Mr. LOCKE: There is a little difference in definition of terms here between what you are saying and what I was saying. I wasn't referring to restoration but to a program which was recommended by ARL twice after very careful study including many specialists on how to preserve single copies of rare and disappearing books, books that are falling apart.

Could I take a moment to answer Carlos Cuadra's very kind comment? As I said earlier, I wrote this report with considerable trepidation because it is never easy to take an unpopular view, particularly if one feels he may be called upon to support it before a group of people. And I realized full well that I was letting myself open to criticism, public criticism. On the other hand, I did feel that it was desirable that this view be presented, and I would not have presented it if other librarians had not taken similar positions with me in discussion. I am sorry that no one of this persuasion among the library community has testified before you. If so, I am sorry that I, like the boy who saw the Emperor's no-clothes situation, am a minority of one. But what Carlos has said makes me happy that I wrote down what I had in mind and presented it to you.

Thank you very much, Carlos.

Chairman BURKHARDT: Thank you very much, Mr. Locke, and I hope, as I said earlier, that you will send us your comments on the national plan.

Mr. LOCKE: With pleasure.

WOLFGANG M. FREITAG
 Librarian, Fine Arts Library, Harvard University
 Cambridge, Massachusetts

WRITTEN TESTIMONY

Thank you for your letter of 10 July 1973. I am honored by the invitation from the National Commission on Libraries and Information Science and its Chairman to express my thoughts on some of the current needs and problems that libraries and information services face in this country today. I also appreciate the opportunity that you give witnesses to focus on one of the six areas of concern stated in your letter.

I have chosen item #3 on your list: Criteria for designation of proposed national and regional resource centers as the topic of my testimony.

Before addressing myself to this topic I would like to identify myself as requested when submitting statements to a hearing in letter form.

I am the Librarian of the Fine Arts Library of the Harvard College Library (1964 -), Lecturer on the Fine Arts and Member of the Faculty of Arts and Sciences. I have been in the library profession for over twenty years, most of these at Harvard where I have had varied experience in cataloguing and classification, as head of a science library and as Associate University Librarian for Resources and Acquisitions. I am interested in education for librarianship and have taught as a guest at library schools and have been co-chairman of a federally funded Institute for Training in Librarianship (Buffalo, 1969). I have been a member of the American Library Association (Chairman, Art Subsection 1968-69, Chairman, Subject Specialists Section 1971-72), and the Special Libraries Association. I am a member of the College Art Association of America, the International Association of Music Libraries, and I am a charter member of the Art Libraries Society of North America (ARLIS/NA).

My educational background is in literature, music and art; my chief interests are the history of ideas and of scholarship. My graduate degrees are from the University of Freiburg i.B., Ph.D 1949 and from Simmons College, S.M. in librarianship, 1956.

Since my most recent experience has been as director of a special subject library in an academic institution, a library, however, whose impact reaches far beyond that specific institutional setting because it serves indeed *de facto* as the art reference and research library for the whole New England region, I may be permitted to speak *pro domo* with constant reference to the role of the Fine Arts Library of the Harvard College Library in the Fogg Museum. It should be clear, however, that other libraries covering different subject specialties do exist and have similar problems and that what is said about the need to establish networks and regional fulcrums is also applicable to areas in the sciences, in business, law, etc.

If one takes a look at library service in the visual arts in the United States today, one realizes that of ten outstanding libraries, three are museum libraries (Art Institute of Chicago, The Metropolitan Museum of Art in New York City, the library of the Cleveland Museum of Art); three are subject

special libraries as components of university library systems (Columbia, Harvard, New York University); two are integral departments of large public research libraries (Library of Congress and New York Public Library); and only one is an independent research institution (The Frick Art Reference Library in New York City). This stands in contrast to the situation in Europe where every country has one or more independent central libraries covering the field. I mention this because it would be much easier to link independent research libraries into well functioning service and bibliographical networks than is possible in this country where art libraries have very different administrative and financial bases.

There is, due to a lack of organization, no easy way of discovering how many museums have strong libraries or which public library systems include strong art collections. A survey to assess this situation is now being undertaken by a committee of the Art Libraries Society of North America, the new professional organization of art librarians. One fact however, emerges: While in some cities, two or three (at least four in New York, three in Washington, D.C.) strong art libraries, busily building up their collections and competing with each other for private and/or government funds, are located at only a stone's throw distance from each other, other culturally wide awake or emerging cities have no collections of similar quality.

In Boston the situation is still different. The Boston area has a few very strong art reference libraries (The Museum of Fine Arts, the Boston Public Library, the Boston Atheneum and Harvard's Fine Arts Library in the Fogg Museum). Of the four the Atheneum is a private subscription library serving only occasionally a visiting scholar or two, the Museum of Fine Arts Library is considered chiefly as a tool for the Museum staff and serves the public only incidentally (even if its premises are too small and its services are not organized to accommodate numbers of serious students), the Boston Public Library collection, which has a strong base, has suffered great neglect over a number of years and only since it has been moved to new quarters in the Boston Public Library Annex recently completed, does it give some promise of developing into a serviceable reservoir of art books for the art historical community. Until it does, however, the Fine Arts Library of Harvard University, as the most accessible and strongest art reference library, serves as a public resource. As an academic library of a private institution it receives no public support and no reimbursement for the services it renders to faculty and students of twelve other area colleges and universities, to private research scholars and to the public at large. It becomes increasingly difficult to defend this liberality, considering the fact that the library has been forced to curtail its services to the Harvard community by reducing opening hours and paging and eliminating inter-institutional interlibrary-lending. In the near future it may have to eliminate all service to those who are not members of Harvard University. This library is over-extended.

This description of the art library situation in the Boston-Cambridge area is not given primarily to call attention to the plight of our library but because the situation, namely one art library serving a large spectrum of the community while several other libraries in the vicinity are continuing to build up their collections to serve a very limited clientele, is probably typical for many a city in the U.S. The library that takes the brunt of use may be a public, a museum or a university library. This situation is bizarre and wasteful and can only be explained historically by the fact that private, municipal, state and national library resources were permitted to develop in-

dependently of each other with no attempt made at coordination.

Privately financed art libraries have, it should be noted, one great weakness. They have not been able to create a tradition of private patronage. Wealthy people interested in the arts give works of art to museums, they do not usually support art libraries. J. P. Morgan established the Morgan Library in New York as a museum of the book, not as a working reference collection, and so did the other great book collectors who were also art collectors. It is significant that of the world's great independent art research libraries, only one, the Henry Clay Frick Art Reference Library, developed in the United States, whereas in Europe names such as those of Sir Robert Witt, Abby Warburg, Bernard Berenson, or Jacques Doucet are closely associated with the independent research libraries which they founded.

I submit for consideration by the National Commission the following recommendations:

I. Establish Regional Central Art Libraries

In each geographic/cultural area the Commission should effect federal and state support that would permit one of the existing visual arts libraries to broaden its function to become the official public research and reference library for the area. For instance, in one place an existing museum library could replace or absorb the appropriate section of the public library, a developing art history department in a university might want to apply its library funds to strengthening a nearby museum library instead of building up a library of its own, or the public library art division might de jure become a museum and/or art department library. Serving all levels of readers from grade through graduate school, art historians as well as artists, amateurs and professionals, recreational and educational needs, the organization of the Museum and Library of the Performing Arts in New York City could serve as a model for such a three-level service concept.

II. Encourage Greater Inter-Library Cooperation

The Commission should authorize studies to determine the degree of cooperation possible between different types of art libraries (public, academic, museum) and procure financial assistance to emerging systems that would

1. produce regional union lists of art serials and union catalogs of art book holdings;
2. develop cooperative acquisitions programs aiming at only minimal and carefully planned duplication of resources;
3. make resources available to each others' constituencies and develop advanced print and pictorial tele-reference and communications systems.

Progress in these areas must be carefully measured and pitfalls avoided. Possible pitfalls lie, again, in the great differences between art libraries with regard to their financial bases. No cooperative is going to work if the parent institutions of the cooperating libraries do not also agree to at least

some degree of subject specialization, and it is most important that all partners adhere to this division of interests and responsibilities over a period of many years. We have seen library collections in colleges and universities where faculty turnover and the lean years of financial support can be "read" from incomplete runs of serials and broken sets of major source publications that appear in parts.

In this country librarians, much more than any other professional group in academia have been willing to work together, to share and to experiment. On the whole they have done much more than the universities themselves toward pooling resources and sharing them as well as their responsibilities. Unfortunately, their best efforts have all too often been thwarted by university deans and academic vice-presidents. Deans and department chairmen love to start new programs of instruction and research for which their own libraries are utterly unprepared while a library, perhaps 100 or 200 miles away, may have most of the resources to support that particular program. These conditions are often the result of a "star system" of faculty recruiting and competition -- no longer justified in my opinion in terms of the financial situation most colleges and universities are in today and the predictable decrease in enrollment -- in building up strong programs in overlapping or even identical fields. Cooperative book selection and the establishment of centers of gravity for special fields within the larger area of the visual arts would help prevent such occurrences in the future.

A prototype for a cooperative scheme as outlined in the above paragraph does exist in the ARLO (Art Libraries of Ohio) network whose headquarters are in the Fine Arts Library of Ohio State University in Columbus. The scheme which has recently lost some of its support (it was originally funded by a grant from the Library Services and Construction Act, PL 89511) should be permitted to develop further and could, indeed, serve as a laboratory for similar projects in other geographical areas.

III. Promote New Bibliographical and Documentation Services in the Arts

The field of art has expanded tremendously during the past two decades and the public for art has grown proportionately including more scholars and students as well as more general readers than ever before. Whereas fifty years ago iconography, aesthetics, sociology of art, and similar fields were considered mere auxiliary disciplines, these have now become integral segments of the field itself. Conversely, while art history had been considered as a self contained discipline it is now seen in its relationship to the other humanities, social sciences and sciences, notably in relation to philosophy and psychology, social psychology, history, theology, literature and anthropology. This has opened up entirely new vistas for the art historian who is calling for new and different bibliographical tools for his work, and it brings scholars from other disciplines to the art library who are looking here for kinds of information available in the printed and visual collections that traditionally were of little or no interest to the art scholar.

Present library catalogues are very imperfect instruments with regard to subject analysis, especially with regard to the needs of these new groups of users.

And yet, libraries are a service industry for the provision of informa-

tion. Every item of information required should be provided within the shortest of periods. Libraries must become more active in making their resources known in some depth to the would-be user.

The time has come for some subject special libraries to undertake the creation of new tools such as augmented catalogs that contain entries not only for monographs and periodicals but also for articles in scholarly journals and for individual chapters in books, for art historical information found in newspapers and other non-specialized forms of publication. The profession badly needs a central repository in this country for domestic and foreign exhibition catalogs and auction sales records for which new and better bibliographical controls are also badly needed.

One area in which the Commission could perhaps become active by initiating support is the interdisciplinary cooperative abstracting and indexing of the current runs and retrospective files of general-interest cultural periodicals. Several special libraries representing different humanistic disciplines could attack the problem jointly. Obviously, when indexing retrospective files of general periodicals from the point of view of several subject disciplines, one should not have to turn over the same mass of material again and again. The bibliographer member of a team whose task it is to abstract or index articles for the field of art history should not throw back into the ocean of data the material that is of potential interest to a sister discipline. To give a practical example: the art bibliographer should forward immediately to the music bibliographer those materials -- usually iconographic data -- which, although they are of slight art historical importance, the musicologist wants because they illustrate the history of musical instruments or shed light upon earlier performance practice. In the cooperative scheme which I envisage, the work load would be divided according to the desired chronological coverage. The art indexer would cull from the publication on which he is working the relevant art historical information as well as materials that may be relevant to other subject fields. He would proceed to code specific art historical information for direct input into his own bibliographical data system, but he would also gather and transmit in standardized machine readable format, information picked up on other subjects, such as music, literature, film, drama, or history to those centers which have taken on the responsibility for the documentation in those respective fields.

The result of the activities described in the above paragraph would be reflected in a number of standard indexing/abstracting tools for the various disciplines and permanently stored in a data bank with the capability for producing on demand special subject bibliographies on an individual basis.

IV. Develop Visual Resources

The building up of strong central collections of visual resources for art: photographs, slides, films and video tapes in conjunction with the designation of center libraries is just as important as building up the collections of printed materials.

V. Centralize Archives

The Archives of American Art, since 1970 a Bureau of the Smithsonian Institution in Washington, D. C. with area offices in Boston, New York,

Detroit and San Francisco, should be the official repository for all letters, diaries and business records of all American artists, art scholars and art dealers, thereby relieving the nation's art libraries from the need for establishing such archival collections on their own. The AAA should be amply funded to continue its oral history program of interviewing living artists and art scholars and it should be put into a financial position to publicize its holdings in the form of catalogs and indexes, newsletters, etc.

VI. Create Master Collections of Exhibition and Auction Catalogs

The Center for Research Libraries in Chicago or the new research library of the National Gallery of Art in Washington, D. C. (which at one time during its planning stage had been dubbed "The National Art Library") should de jure become responsible for collecting in this country one copy of every art auction and exhibition catalog that can be obtained from anywhere in the world. I suggest that the CRL take responsibility for the auction sales and the National Gallery for the exhibition catalogs.

I hope that the foregoing will be of some use to the National Commission on Libraries and Information Science in its deliberations during the New England regional hearing on 3 October 1973. I would like to add that some of the points I have made were expressed by me earlier in the two articles.* I am indebted to John Coolidge, Professor of Fine Arts at Harvard University and former director of the Fogg Museum for stimulating my thoughts on the need for one strong art library for each city or region through his article "American Art Museum Libraries: Past, Problems and Potentials" written fifteen years ago and still pertinent today.**

* "Art Libraries and Collections," in Encyclopedia of Library and Information Science, ed. by A. Kent and H. Lancour, I (New York: Marcel Dekker 1968), 571-621; "Wanted: A New Index to Exhibition Catalogues," College & Research Libraries 30: 540-43 (Nov. 1969)

** Special Libraries 50: 119-122 (March 1959).

Chairman BURKHARDT: You have been waiting for a long time; I hope you have not been too bored.

Mr. FREITAG: Not at all. It has been a real education for me. For someone who occupies a somewhat secluded niche in librarianship, this has certainly thrown me back into the mainstream and I am very grateful for the opportunity to explain some of the points that I raised in my written testimony and their meaning.

Chairman BURKHARDT: Let us first identify you. You are the Librarian of the Fine Arts Library and lecturer on fine arts at the Fine Arts Library of Cambridge?

Mr. FREITAG: Not Cambridge, Harvard University, and that is a point to which I will come in the course of my testimony. I will not repeat anything that I have said in the paper, but I will just emphasize one or two points.

While most of the speakers today were chiefly concerned with the role of the library as a social agency, which I agree should have the chief consideration of the Commission, mine was a rather esoteric topic, namely, the typical special research library as a worthy candidate to become the central regional library for a given subject, in my case, the visual arts. And in my opinion, the visual arts lend themselves particularly to the brief incorporation into a regional network because, unlike science and technology or medicine, the visual data of which we are custodians do not lend themselves to electronic transmission, at least not for research purposes, to the degree to which medical and technological data can be adapted.

So while I want to commend you on the realization so convincingly expressed on page 4 of your proposal, namely, that a national network involves the co-joining of general and specialized libraries and information centers -- to which I say "Amen" -- I do see some problems in there with regard to the visual arts and with regard to research libraries in particular.

To my mind the problem that exists in the co-joining of libraries of different financial bases can also be phrased as the question of how does one overcome the danger of splintered efforts in a country that has this mix of endowed private and tax-supported public library information systems. The private are endowed university and college libraries. Some so-called public libraries, like the research wing of the New York Public, are endowed and then we have other cultural agencies which are endowed, such as museums.

There are corporate industrial libraries of which Mr. Huleatt spoke in his own field of engineering, and then there is the public sector, namely, the public colleges and universities, public museums as well as libraries of other state and municipal agencies.

This mixed library economy I think, is a problem and I don't have the answer to it.

Another point that concerns me very much I have alluded to on page 5 of my letter. I am surprised that none of the other speakers from academic libraries has zeroed in on this problem. It is the lack of support in collection-building, that is, in emphasis on special areas of scholarship or knowledge that academic libraries should do but in which they have not been supported, by and large, by the people who hold the purse strings of the parent institutions.

As I sit here, I quote myself: "In this country, librarians, much more than any other professional group in academia, have been willing to work together to share and to experiment. On the whole, they have done much more than the universities themselves toward pooling resources and sharing them as well as their responsibilities. Unfortunately, their best efforts have all too often been thwarted by university deans and academic vice-presidents. Deans and department chairmen love to start new programs of instruction and research for which their own libraries are utterly unprepared, while the library perhaps a hundred or two hundred miles away may have all the resources to support that particular program. These conditions are often the result of a star system of faculty recruiting and competition -- no longer justified in my opinion in terms of the financial situation most colleges and universities are in today, and the predictable decrease in enrollment -- in building up strong programs in overlapping or even identical fields."

Cooperative book selection and the establishment of grants for special

fields within a larger area of the visual arts would help prevent such occurrences in the future. This is another problem to which I have no answer, but to which I think an answer should be sought in the deliberations of the National Commission.

Still another area to which I have once-alluded but which I have only sketched very lightly and which therefore needs some "fleshing out" here is where the raison d'être of the special library as a resource center, to be so designated in any network, would come in -- the need to collect and preserve intensively what I call the "gray" media of publication. Applying this term I am referring, of course, to the visual arts, but there are other subject areas of publication which have the same problem. The printed record may not be fully described bibliographically. I am speaking of items such as museum bulletins, flyers put out by museums, the hand lists that they give to people who enter certain galleries so that they can find their way through a sequence of rooms, the show and exhibit invitations from small museums and commercial galleries as well. These materials are seriously neglected, except in a very haphazard way. They should be used in the building of dossiers on living artists, people who have one show, maybe no more than this one show; others who gain fame and have to be watched; or take all the little announcements which have to be collected and preserved toward the day when you can deliver these people, so to speak, to the discipline of art history for "further treatment"; that is, to be kept in this form until the first monograph is published.

This activity cannot be carried on by the national libraries; it cannot be done by the large encyclopedic research libraries. As an example here, I will mention only one. And I do not want to offend the representatives of the Library of Congress. But, they have not succeeded, for instance in cataloguing as well as the bibliographical and iconographical interests of the

profession of art scholarship demand it, the exhibition and auction sales catalogs.

What with the four research libraries compact threatening or beckoning -- I don't know which -- in my institution we are surely going to be forced to accept, even more than we have up to now, the cataloguing of these materials by the Library of Congress. Whereas, for instance, all the large, independent museum art research libraries have steadfastly neglected to adopt the Anglo-American code, we and art libraries that are part of systems have had to succumb to it at least for the main entry. Well, I don't want to go into details, but it is the question of main entry that is important here.

A real hope is, for instance, the capability of some of the network computers, such as OCLC's to print information - that is catalog data stored in it - out in different formats. I think that is a real possibility which special libraries might be able to utilize. They could use pre-packaged catalog information and still adhere to their own principles of entry.

This is all I have to say. It is obvious, of course, that all the visual resources are also a category that is very much on my mind. By this I mean photographic archives, naturally. We have special problems of preservation, of conservation, with slides and films, and now, of course, also with video tapes.

In conclusion I would like to suggest that the National Commission should in all its work make sure -- we look with great expectations to them -- that any assistance to cooperative regional systems or national systems is not counterproductive in terms of the needs of individual segments of the scholarly community.

Mr. LERNER: Mr. Freitag, you do not mention in your paper, nor did you just now, what I would call the clearinghouse function of the physical cataloguing of works of art. Does that exist today? And, if so, in what form?

Mr. FREITAG: Well, this is another area in which library documentation joins with the discipline of what has been called in Europe museography or archeography, that is the description of individual works of art in the museum collections with the aid of computers. The ideal system would indeed consist of a network of registrars' files of museums where you would have, in addition to the description -- the museum-like description of the work of art -- also references to the literature that deals with the piece, so the library documentation would be joined to the museum documentation. This has been the goal of the museum computer network that was started six years ago and which still exists. Although funding has been decreased, that has been the ultimate goal. Because basically art libraries are here -- I mean to repeat a truism -- to create the "museum-without-walls", they extend the range of your galleries and your collections.

Ms. SCOTT: You speak of two collections here under the National Collection of Fine Arts and National Portrait Gallery. The Archives of American Art is located in and served by that library. You say that they should be in the collecting oral history program?

Mr. FREITAG: Yes.

Ms. SCOTT: They are now.

Mr. FREITAG: They are doing that, yes.

Ms. SCOTT: They are not being catalogued, however.

Mr. FREITAG: Well, they should be.

Ms. SCOTT: Or not made available.

Mr. FREITAG: No. I think all I am doing is making a plea for funding, for more support. I think they are doing exactly the right thing for American art, and there is also one concept in the Archives of American Art operation which could be adopted by other documentation enterprises that are not too voluminous. I think that is a consideration, but the main collection is in-

deed housed in but not part of the National Portrait Gallery, although both are bureaus of the Smithsonian Institution, and a complete copy on microfilm of that Archive in Washington, D.C. is available in the four regional centers, one of which is in Boston and one is in San Francisco. The other one is in Detroit, which was the birthplace of the Archives of American Art, and there will be one in San Francisco very shortly and it may exist now; I don't know. I understand there will be one in New Orleans too; that is a very important effort in this field.

Ms. SCOTT: Would you like to extend your remarks on the National Gallery of Art? You dubbed it the "National Art Library." Do you see anything significant there? I mean any particular rôle?

Mr. FREITAG: I think it is too early to say. I can only remind you that the library of the Victoria and Albert Museum in London was conceived as the National Art Library of Great Britain. I know it was conceived that way, I know that when the Advanced Study and Research Center for Visual Arts in the new research building of the National Gallery was discussed, there was talk of making its library the "National Art Library," even by transfer of collections from the Library of Congress.

Mr. DUNLAP: I was interested in reading in your paper the paragraph pertaining to the Archives of American Art. It was new to me. I wonder why you argue that the Archives of American Art should be the official repository for all letters, diaries and business records of all American artists, et cetera. I think it is important that the papers be preserved, and more often than not in the locale with which a man is associated. I see there is no repository between Detroit and San Francisco, and I would rather hope that Thomas Hart Benton's papers would be in Missouri.

Mr. FREITAG: Well, I probably didn't express myself clearly enough. If

here is a microfilm copy in the national center, that would certainly suffice.

Mr. DUNLAP: You say "should be the official repository."

Mr. FREITAG: Oh, I think it should be open to receive any additional material and I think it should also prevent too restrictive a policy on the part of some of the owners of the original material, because right now the catalog which has just been published of the resources of the Archives of American Art contains a number of collections that are known to exist as parts of the Archives of American Art but which cannot be described in depth because there are restrictive policies.

Mr. LORENZ: I understand there have been discussions, if not a decision made, to turn the art catalogs at the Library of Congress over to the National Gallery of Art Library. Have you heard about this?

Mr. FREITAG: No, I have not, sir, but I think that would be a very good move. I have suggested in the past that they be collected at the Center for Research Libraries or that the exhibition catalogs should be centered at the National Gallery and the sales and auction catalogs at the Center for Research Libraries because those are not only of interest to just the historians but to the economists as well.

Mr. VELDE: I was wondering if you had any problems too with no tax exemptions for papers.

Mr. FREITAG: My library does not go out to collect manuscript archives. We do have however as our "archives" one diary of an American painter and three legacies of art scholars. But those have landed in my lap more or less by default, because these gentlemen are neither former members of the Harvard faculty, in which case their writings would have gone into the University Archives, nor were they former directors of the Fogg Museum, in which case their writings would have gone into the archives of the Fogg Museum. Nevertheless they were given to Harvard and I have them, but I am not adding to them.

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WRITTEN TESTIMONY

The intent of this statement is to briefly describe the major concepts of a national information service network and how it could be implemented. Our viewpoints will be presented in three major sections:

- I. Problem areas as we see them.
- II. The long-range solution, which appears impractical and unworkable at this time.
- III. An interim solution; a workable alternative.

I. PROBLEM AREAS

For the purpose of this statement, we will address the following two generic problem areas.

1. The inefficiency inherent in the existing systems and procedures for storing, retrieving, and disseminating needed information -- especially scientific and technical information, although the principles apply equitably well to other classes of information. Essential to our thinking is that information in many spheres, particularly technical information, is a vital national resource which the Government has a legitimate interest in fostering, preserving, and making maximally useful.

2. The inability of the user, especially the information seeker who works for a small or medium sized organization, to access the information he needs, on a timely basis, to perform his job in an effective manner.

On a national level, we have an unplanned, ad hoc, decentralized, uncontrolled, and incompatible myriad of independent information facilities and services. Collectively, it is obviously inefficient and costly -- and these costs are consistently rising. To many users, especially those who are reluctant to recognize information as a commodity that must be paid for, some of these costs are already prohibitive. Inefficiency abounds because of duplication of holdings and effort; plus the painful fact that much needed information is lost or virtually not available to many users.

The information user in the small to medium sized firm has a more serious problem than his counterpart in a larger organization. Among the factors that influence his use (or nonuse) of information are:

* The opinions expressed do not necessarily represent the views of GTE Laboratories.

1. Typically, an underfunded and/or understaffed library, or no library at all.
2. Lack of knowledge as to what information resources are available or how to tap them.
3. Inconvenient access to those information resources he does know about.
4. Inadequate time and/or funds to investigate even the major information resource alternatives.
5. Reluctance to ask outside sources for information for security reasons (e.g., R&D users don't want others to know what subject areas they are currently pursuing).
6. Intermittent and changeable needs, precluding his subscription to many information services.

Even though a local librarian may be available, there is such a multiplicity of information resources (steadily growing) that the response to the user's request is often incomplete or too late to be useful. Faced with all of these problems, the usual decision is to do without the data, or to call a colleague who may be able to provide leads.

Some idea of the extent of the information resources available is shown by the five references listed in the bibliography. Reference 1 describes 160 Federal libraries holding comprehensive, research collections, or other unique collections. Reference 2 describes 142 machine-readable data bases for bibliographic holdings available in 1971: 97 produced by 62 organizations in the U.S., plus another 45 generated in ten other countries. Reference 3 describes 833 organizations in the U.S. and Canada that provide or maintain an information system or service. Reference 4 shows that an average of 1.5 million items have been added in each of the past three years (1971 to 1973) by 30 abstracting and indexing services. Reference 5 describes some 1500 data files from over 600 organizations worldwide, covering only the social and behavioral sciences.

II. LONG RANGE SOLUTION

A majority of our nation's workforce is concentrated in industries where the input of information has become an important (sometimes critical) ingredient to success of the enterprise. Assuming our economic and technical growth is, to some extent, dependent upon the success of these enterprises, it is important to see to it that the information they need is available for their survival in a worldwide marketplace and to avoid wasteful use of national resources (man, material, machinery, and money). We believe the concept of extending federal subsidies to a wide range of information services, carefully designed to encompass and penetrate the user community, is unquestionably in the public interest.

With these thoughts in mind, we are suggesting the long range establishment of a government-sponsored national information service network. Such a concept is not new; it is easier to suggest it than to describe how it will work. Nevertheless, we will attempt to define, in a broad sense, how we think it could work effectively and how it might be implemented.

As shown in Exhibit 1, five functional (not necessarily organizational) elements are envisioned: Official Depositories, Computer Processing Centers, Information Locator Centers, and Local Access Points. It is important to note that most of the network elements described currently exist, and are functioning. Individually, some of them are performing very well. Collectively there is massive overlap and waste. The major difference between the current operations and the concepts described below involve their participation as a node in a structured national network -- as well as the associated coordination, cooperation, effectiveness, and efficiencies possible through operation of such a network.

A. Official Depositories

One of the key initial steps in setting up such a network is to identify the segments of information needed in a national system. The selected information resources (including the holdings of certain libraries, clearing-houses, IAC's, etc.) would be classified as Official Depositories. When selected, the depository becomes eligible for partial Government support, possibly in proportion to its importance or use. Primary responsibilities of such depositories would not depart significantly from present practices, and include:

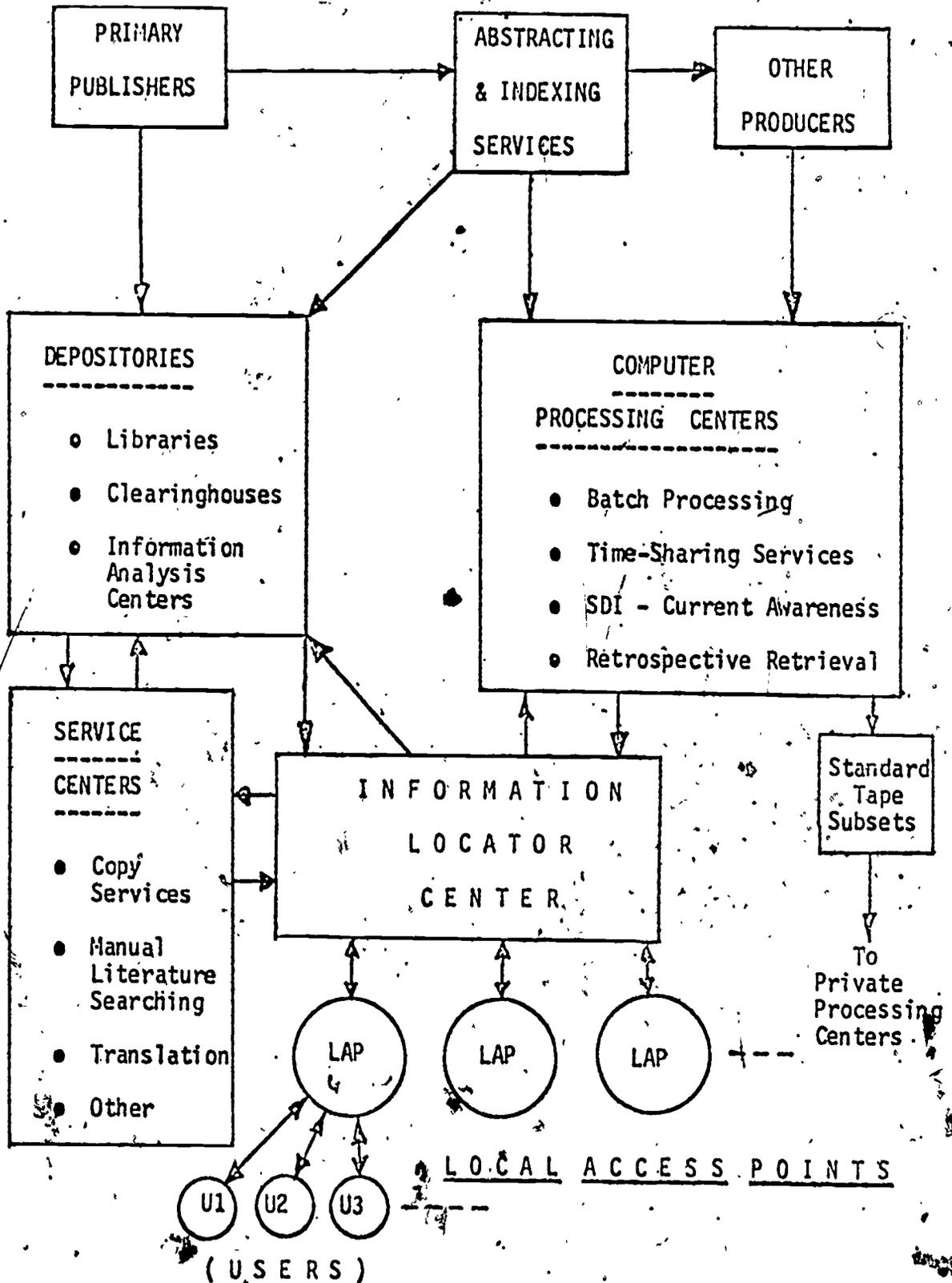
1. Assembly and maintenance of special collections.
2. Permanent historical holdings catalogued for easy retrieval.
3. Filtering, indexing, surrogating, as required to maintain quality collections.
4. Availability of holdings to copy services.

B. Computer Processing Centers

The primary function of these centers is to provide an information management capability while minimizing duplication of services. Responsibilities at these centers would not differ essentially from the tasks currently performed, including:

1. Maintenance of search tapes for retrospective searching.

NATIONAL INFORMATION SERVICE NETWORK
(Conceptual Functional Flowchart)



NOTE: THIS CHART DEPICTS FUNCTIONAL OPERATIONS - NOT GEOGRAPHICAL OR ORGANIZATIONAL ENTITIES.

2. SDI operations, including profile maintenance, announcement, etc.
3. Batch search processing for area served.
4. Use of time shared bibliographic services.
5. Tape reformatting and provision of standard tape subsets for use by private institutions.

Primary machine readable input will come from the independent abstracting and indexing services and other producers. The national network would have little if any control over this input, except to promote and assist in format standardization.

C. Service Centers

The service functions include an important document management capability involving copy centers for hard copy and microform reproduction, as well as blowback from microform. Another important service is to perform, or arrange to have performed, manual literature searching and retrieval of material not covered by computer files. Translation and other services would also be performed. Functionally, these are separate services, but physically, they may be located within the depositories or processing centers.

D. Information Locator Center

There appears to be a vital need for a coordinated but decentralized network of information locator centers. These should be set up on a state or regional basis, according to the density of users and their actual use of the network. The information locator centers would have at least these responsibilities:

1. Act as clearinghouse for requests.
2. Locate depositories and processing centers holding desired information.
3. Initiate appropriate computer and/or manual searches.
4. Act as a wholesaler for SDI services in the area being served.
5. Request and monitor service center support.

A few information locator centers exist at the national level (e.g., NRC, SIE) and they would surely play an important role in the national network. But the existence of a decentralized network of locator centers will ultimately become necessary. If everyone in the network can communicate with everyone else, the communications network will inevitably break down. The centers would act as switching centers to avoid such a breakdown.

E. Local Access Points

The last element of the national network involves direct contact with the user and is the most important element in the network. It has long been understood that a good information service which is not convenient and accessible will be utilized far below its capacity. When there is no local access point (such as a firm's library), the unfortunate results are that many make do without any literature support.

The nature of the local access point will change and improve with time. The change will occur gradually along with the advent of economically feasible online systems, integrated circuitry, mini and micro computers, low cost display devices and printers, as well as other technological trends such as

CATV. Whatever form the local access points may take, it is important that it be available, convenient, and that the user be aware of it.

In summary, following are the major advantages and disadvantages of the conceptual information service network we have outlined:

ADVANTAGES

1. Prevents valuable information resources from virtual non-availability.
2. Increases the use of information and specialized collections.
3. Decreases duplication of holdings.
4. Reduces duplication of effort in surrogation and indexing.
5. Helps increase compatibility and standardization.
6. Increases the speed of access to both new and archive information.
7. Broadens user base.
8. Helps pave the way for effective use of online and other sophisticated systems requiring networking.

DISADVANTAGES

1. There is an implied long-term Government commitment required in an area where support is dwindling.
2. The startup costs are high.
3. The idea would probably meet with severe resistance in many quarters.
4. It is at least a 5-year program. What will be offered in the interim?

III. AN INTERIM SOLUTION: A WORKABLE ALTERNATIVE

Examination of the above list of advantages and disadvantages of the national network leads one to conclude that, over the long run, the advantages far outweigh the disadvantages. However, the difficulty of implementing the system is apparent. Furthermore, if the Federal Government attempted to implement the system too rapidly, it would surely be an expensive disaster for several reasons, notably:

A. To be successful, complex systems must be evolutionary -- they are not born overnight.

B. Technology is not yet to a point where such a system can be considered economically feasible.

Even if the program were developed slowly (say on a five to ten year timeframe), there is an inherent pitfall in the plan. A national information service network, whatever its design may be, is predicated upon extensive cooperation of its participants. The participants are numerous, generally independent, and faced with their own set of problems. Achieving the degree of coordination and cooperation needed for an efficient/effective system will be difficult, costly, and time-consuming; it may not even be an achievable goal.

In spite of these problems, the Government cannot afford a passive at-

itude. The existing ad hoc, uncontrolled, incompatible, and independent information facilities and services cannot be allowed to continue indefinitely without dire consequences at some time in the near future. Other countries are building more efficient networks with Government support and in the long run, the U.S. must also. At the same time we are not suggesting an expensive, impractical, long-term program involving serious pitfalls that could cause the entire system to crumble.

We believe the network should be built piecemeal on a small scale -- a less costly and safer approach -- which can be incrementally funded as it grows and learns to grow. This workable alternative revolves around the concept of setting up a network of "information brokers" as shown in Exhibit 2. The functional responsibilities of the information broker (in many ways similar to those of the real estate or stock broker) are:

- A. They must be independent operations not associated with any particular processing center.
- B. The information broker must perform all the functions described for the information locator center for the users in his area.
- C. For those users who do not have a local access point, the broker will serve that purpose. This can be attained through a vigorous marketing campaign, plus close relationship and frequent communication with the users in the broker's area.
- D. The information broker will be required to batch requests and maintain complete anonymity of the requestor.
- E. The only contact the user should make when he has an inquiry is to the broker; the user would receive one bill no matter how many information resources were tapped.
- F. The information broker would be responsible for the creation and maintenance of SDI profiles for participating users in his area.
- G. Activities will not be restricted to scientific/technical literature. The broker would be responsible for locating and providing literature covering all subject areas.

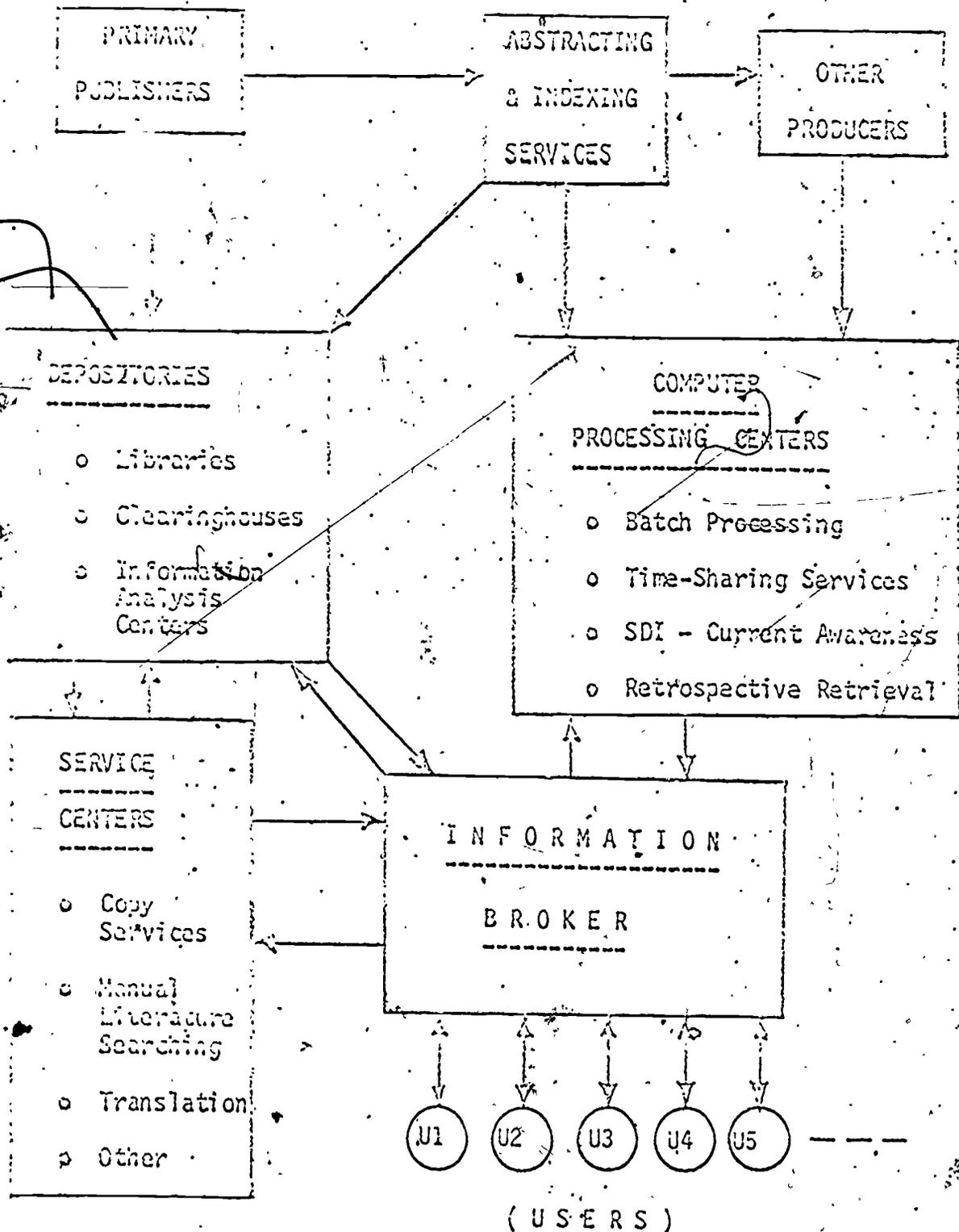
The network of information brokers should be partially government supported in order to prevent the service from being prohibitive to use, and to insure availability of an easily accessible broker to all users. A comprehensive training program should be established to apprise all brokers of the multiplicity of information resources and the changes taking place.

Such a network of information brokers would provide the following minimum advantages:

- A. It will provide an interim solution directly to the user while the full network is being planned, organized, developed, and coordinated.
- B. It will provide a relatively inexpensive method to test the feasibility of the concept and useful feedback data for perfecting the overall design and services.
- C. The program can be easily expanded incrementally as funding will allow.
- D. When the traffic becomes great enough, and funding is available, the information broker can "graduate" and become an information locator center; he will have developed the experience necessary to carry out the tasks without additional training.

EXHIBIT - II

THE INFORMATION BROKER AS A KEY ELEMENT IN INFORMATION TRANSFER



NOTE: THIS CHART DEPICTS FUNCTIONAL OPERATIONS - NOT GEOGRAPHICAL OR ORGANIZATIONAL ENTITIES.

E. If the full, formal system takes longer to develop than planned, or if Federal funding and subsidies are inadequate or unavailable, the information broker concept can be continued at a relatively low cost, providing a very favorable cost/benefit ratio to its users.

Eventually, the information broker may be phased out and replaced by on-line and other sophisticated systems. However, it is likely to be many years before that happens.

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Chairman BURKHARDT: We will now have as our final witness or witnesses Mr. Marvin Gechman and Mr. Edward Housman. We have a team presentation. Mr. Gechman is president of Information General, Incorporated, in Needham; and Mr. Housman is the head of the information services of the GTE Laboratories, Inc., in Waltham, Mass.

Have you decided how to go about presenting your case here, or do you want to go into the question period right away?

Mr. GECHMAN: We have little to add to the paper other than a desire to discuss and describe it in more detail. The mechanism by which one goes about providing services to remote users is rather involved and our paper was just an overview. The only comment I have -- Ed might have additional -- is the relationship of our paper to the NCLIS statement which we read this afternoon. By and large, the ultimate goal of what we wrote about is identical to the draft of your program; the only place where there is a difference is in the methods by which you get there. There is a distinct difference in flavor between those two papers on that account.

Chairman BURKHARDT: Could you spell that out a little bit? What is the difference in methods and in the flavor?

Mr. GECHMAN: For example, on page 7 of your paper, there are a couple of comments leading up to this difference in approach, especially this one: "To build a national library network on a state-by-state basis would be self-defeating and very costly."

I admit that this is taken out of context, but the flavor I get is that the Commission is thinking about going into this network in a big, big way; the "big system" approach rather than phase by phase. The "all at once" approach is just the opposite to our thinking.

Our approach is that the long-term system, which your paper described in general terms, is exactly consistent with the long-term approach we

described. We call it the "long-range solution." But if you recall, we give reasons why we believe it is impractical and unworkable at this time; that really is the issue. As a systems man I know that complex systems, particularly when they are computer-based systems, are very evolutionary. They are not born overnight, and they have to be developed in a very careful, phase-by-phase manner. Considering the problems involved in putting that total system up and running all at once, we feel it will be very time-consuming and very costly. What you should do is build it in small segments, all leading toward that ultimate goal of a total system.

Chairman BURKHARDT: Would the segments be built in terms of some overall plan? In other words, I am trying to get at what you would think of as the next step for this Commission now in filling this thing out and getting a national plan.

Mr. GECHMAN: Also on page 7 of the NCLIS paper are the words, "Introduction of National Standards and Procedures." That to me is the number one objective that the Commission should strive for now. Whatever is done, and however it is done, it all should be under the auspices of a national plan.

The only other thought that I have beyond that is that we are in the midst of designing an experimental program between our respective companies to test some of the ideas in our paper. We want to test the idea of the information broker serving the remote user. We are talking about the person without a convenient library or the librarian who really does not have enough knowledge (or time) to access the tremendous amount of information sources that are available.

Chairman BURKHARDT: How long have you two gentlemen been working on this particular idea that you present here? That just didn't get done last weekend.

Mr. HOUSMAN: Do you mean the paper that we wrote?

Chairman BURKHARDT: Yes.

Mr. GEGHMAN: Well, I am sure Ed will agree with me that some of the ideas have been in the thinking stage for a long time. I have done various consulting jobs for several industrial and government agencies involved with some of these issues, but the actual paper was done in a matter of a week.

We had a meeting and presented our views to each other; we found that those views were reasonably consistent. Ed prepared the outline, I wrote the original draft and then gave it back to Ed for technical and editorial corrections and additions based on his ideas.

The time and effort that went into this particular paper was not substantial. More important is how much time went into the thinking about what this system ought to look like; that has gone on for some time.

Chairman BURKHARDT: Would you like to take over now, Mr. Housman?

Mr. HOUSMAN: Marv has just about said it all. As I read your paper, I found myself agreeing with almost every sentence and, in fact, the only difference is in the approach, and maybe in some particulars.

Being from General Telephone and Electronics, I was interested in your focus on telecommunications, and I think that is a very important aspect to look after.

Chairman BURKHARDT: Do you think that is a good idea?

Mr. HOUSEMAN: Yes, it is the only way really, I think, for a network to achieve fast flow of information between libraries. Wide band communications is the way to do it. This is, however, very expensive, and it has to be subsidized, certainly at first. This would also require some legislation.

Mr. LERNER: I am particularly intrigued by your concept of the information broker idea and I would like you to expand on that beyond what you have done in the paper.

Mr. HOUSMAN: As I listened to the testimony, the focus of what people

said was kind of foreign to me. I am from an industrial environment, and I have been in government environment, but I have never been in a public library environment. The problem that we stated in particular perhaps relates to our environment. Do you think that is true?

Mr. GECHMAN: Yes.

Mr. HOUSMAN: It is not a book problem; it is a problem of technical people trying to do something, needing the information to do it, and not knowing where to go. Even a rather sophisticated librarian like the librarian from the Army Natick Lab was in to visit me yesterday, and I threw the idea of a local information broker out to her, and she said, "That will be wonderful, because I don't know where to get, for example, a quick literature search in chemistry."

She said it would be wonderful if she could just call a place, state her need, and obtain what she needed.

Mr. LERNER: What I mean is, what kind of place? What is it, a whole new industry? What do they do? Can they have any storefronts? Do you call this on the phone? What is it?

Mr. AINES: What kind of blueprint -- have you gone that far?

Mr. HOUSMAN: Well, I would say that there should be, maybe for psychological reasons, local access points. For example, there might be a broker in the Boston area. Most of the contact would be by phone, I would say. There may be several modes of accessing this broker: by terminal, by letter, by telephone, by personal interview, much, I guess, as you would expect a real estate or stockbroker to operate. Mostly by telephone.

Mr. GECHMAN: The key ingredient is actually people -- and the key word, I guess is "marketing." As I see it, the information broker has to have a rapport with his users and he has to have an active marketing program so that that user knows he is the information broker. The user must understand

that whatever information is needed it can be located with one telephone call or letter. It involves no ~~cost~~, no bother, one bill at the end, and one combined list of references (or whatever is required to respond to a request). In my experience many people have minimal knowledge of what information sources are available. Many have some foggy notion, but many have absolutely no idea where to go or how to access it. Even if there is a good local library, this is often the case.

Mr. CUADRA: It seems to me there are probably twelve or thirteen organizations that already exist that, from your description, I would call information brokers -- Westrak, the University of Southern California; Arak, at Indiana, and Nireak. Those are three of the six NASA centers. There is Lehigh University, University of Georgia, IITRI, et cetera, sponsored by the National Science Foundation.

Are you describing something that is different from those thirteen existing centers?

Mr. GECHMAN: Yes, and no. In our Exhibit-II (it is really necessary to refer to it to understand the concept) we do distinguish between a Computer Processing Center, which all of these centers which you refer to are, as well as an Information Broker, which they also are. What I am saying is that there is a functional difference between these two activities. The Information Broker is a marketing activity similar to a stockbroker that you call up. You don't go to the New York Stock Exchange directly; you call him. He has the mechanism, he has the computer systems and he knows how and what to key in to complete the transaction.

What we are proposing is that the concept of the "broker" should be expanded and applied to information retrieval. If desirable, its functions should be separated from the physical computer operations and other service operations. We pointed out in the paper that the two exhibits show func-

tional categories, some of which can be combined. In other words, in one physical place you could have all three: the broker, the computer processing center and the repository. It depends on how it is arranged and it could be set up differently in each geographic location.

Mr. CUADRA: Just a quick addition to that: There are some of these centers that are not computer centers, they are pure broker, at least one of them may be. There are others and one of them is at a university and one of the concerns that I understand NASA has, and maybe NSF has -- I don't know -- is, that while they have the computer power to do some of the jobs, they are very poor marketers.

My question is: Would you put a broker, an information broker organization, in a university context or in a public library or in a commercial sector? What kind of organization or entity do you have in mind?

Mr. GECHMAN: That is a very good question because it is right at the heart of this whole idea. My personal opinion is that it should be in the commercial sector because they are the ones who are marketing-oriented and they are the ones who have the profit motivation to do that marketing, to go out and develop that business. I don't say none of this exists in other sectors, but the whole context of this thought is an active marketing program establishing a rapport between the brokers and the users; I believe that can best be accomplished in a commercial environment.

Mr. HOUSMAN: I might add one thing: that the broker would also be a person that might select among the centers Dr. Cuadra mentioned for a particular query, so he may --

Mr. LERNER: You mean the broker may subcontract?

Mr. HOUSMAN: The broker may decide where to go for this piece of information. He must.

Mr. AINES: My suggestion is: Don't put too much capital in this very

quickly because what you are expressing here already exists, perhaps not in the form that you are talking about, but, in addition to what Carlos pointed out a moment ago, there are over a hundred informational agencies, centers supported by the government, in various places. These fall into the scientific and technical areas and also other fields. Additionally, you have described in part what the Department of Agriculture does with its extension people scattered throughout the country. Additionally, you have described what started to happen under the State Technical Services Act, where there were individuals set up in all of the states who brought technical information to industry and other groups within their state.

You have also described part of a program that the National Service Foundation is supporting, to the tune of about four and a half million dollars a year, which is a brand new program that brings an intermediary down to the user, if you will, to help pull information from the stocks of knowledge created by federal research and development and other ways directly to using communities.

I might also point out to you that in each major city the General Services Administration has an information center; I would agree that that is not precisely what you are talking about, but it also involves another point of entry into the system. But I would like to put that all aside and point out another thing that you should recognize: namely, that when professionals want information, they use a prescribed route. When people who are not experts want information in a general way, they will follow another route. For example, most chemical engineers would probably go through a number of sources directly, they would not go through intermediaries. They go through where they view the knowledge existed into a new approach. A student might go an entirely different route, or somebody peripheral to the chemical industry might go another route.

In a recent trip to Spain, for example, it was a matter of interest to me to see that the government had created central services out of Madrid, using some of the types of services that you talked about here. When we went out into the field and talked to the people in Barcelona, where they have their major community dealing with technology, it was quite clear that they did not want to go through a central system, they wanted to go directly through the information bank, directly through the computer center. They did not want to go through intermediaries.

What I am pointing out to you is, it is a very complex thing when you begin to talk about brokers and there are a number of starts that have been made, some successful, some less than successful. I would suggest that if you want to get more deeply into that, you might call me in Washington and I will go into greater detail of what I know about it.

Mr. BECKER: I just wanted to add that, as you probably know, there are two commercial services operating in the world that are doing something like this, without a great deal of relationship to the computer. One is *S'il Vous Plait*. Are you familiar with that, in Paris?

Mr. GECHMAN: Yes.

Mr. BECKER: And they have now opened stations in Japan and other countries. For a yearly subscriber fee, you are able to telephone them up to a certain number of hours' work and they will respond or some organization will respond with the answer within 24 hours.

~~That has been functioning now for about twenty years and has become progressively more useful and more profitable, I might add.~~

There is another one in New York called FIND, and I don't know how well they are doing.

Mr. GECHMAN: Right; the two are affiliated.

Mr. BECKER: Those are the two commercial services. Also, the Minnea-

pollis Public Library has a business service that they operate on a fee basis.

Mr. HOUSMAN: I might comment on Andy's comment, that perhaps this just points up the need for a broker function in the field of scientific information. He listed a large number of information resources, many of which I am not familiar with. I would like to be able to go to somebody who knew all these places and how to use them.

Mr. AINES: I would be very happy to open the doors for you.

Mr. HOUSMAN: For me?

Mr. AINES: Yes, sir.

Mr. GECHMAN: It really is a very complex subject. When you first started, I thought you were giving reasons why this was a good idea - because there are indeed so many places to go. We find even very knowledgeable, experienced librarians are not aware of all of these sources. In fact, in our bibliography we list five sources which demonstrate exactly what you are saying. One source is the chapter in Volume 7 of ARIST, where 152 machine-readable bibliographic data bases were identified worldwide in 1971; now there are something around 175 data bases and they are growing in numbers quite rapidly.

Another advantage to the information broker relates to security. A lot of research and development-oriented companies don't want outsiders to know what questions they are asking. They are very reluctant to use outside services because they do not want others to know what subject areas they are interested in.

The information broker would be a professional operation and he would batch the requests. When he does the asking, the people doing the processing don't know who it really is who is interested in the subject.

I agree with Mr. Aines concerning the different routes taken by information seekers. However, I also believe that professionals go directly to

other professionals for information because that is usually the only realistic or feasible alternative open to them. Our paper describes the problem from the users' point of view.

Mr. CUADRA: I don't disagree with Andy Aines very often, but it is so close to drinking time that I can do it.

It seems to me, Andy, that the informational analysis centers are not really the kind of thing that Marvin and Ed are talking about because you cannot go to a center and have them run errands. In other areas, you cannot go to the center on metals, if you happen to have an interest in education or something else. They don't do it. They do their own thing. And even the University of Georgia, which has seventeen data bases that they search, won't help you if you ask for the eighteenth. So I think, as they described the information broker, that kind of organization does not yet exist at the present time.

Mr. AINES: Well, what I am trying to help them with is to understand that there are a number of other people with similar ideas about the value of that approach, and you can save a lot of time as you develop your thoughts, since you mentioned you are working on the idea, by getting to know some of these other programs that are going on, that are akin to what you are doing. You might be in contact with these people in order to get support in a number of fields, and I think you are entitled to know a little bit more about what we know that might save you some trouble, since you are kind enough to tell us what you think about our problems here.

Chairman BURKHARDT: Now, gentlemen, let me ask you one final question to see whether you would agree that we are going about this thing in the right way.

We have this draft and we are passing it out to all kinds of people, including some people we consider to be professionally and technically com-

petent to give us their reactions. At the end of this process we think we will have something like a skeleton on which to really get to work.

Now, in getting to work on this, I presume we must turn it over to the full-time work of some systems people and all of that, but the question still arises: Do we ask them to come back with the whole plan for the whole thing, or do we ask them to tell us what the next phases are, and to do parts? What would the systems way of going at this be and what are the merits of it? What would it call for? Am I asking a sensible question?

Mr. HOUSMAN: Yes. I am not too sure I could answer because it is such a big system, it is such a complex thing.

Chairman BURKHARDT: That is why we suggest that at this time the broker might not be the right thing, that there should be some intermediate phase, so that if it turns out to be too expensive, we could go on to something else. Do you think drafting the big system is a hopeless problem intellectually?

Mr. HOUSMAN: No. It has to be done, and maybe even more in the area of identifying the elements of the system, which are not really spelled out here.

Chairman BURKHARDT: Because it is obvious that this is going to be something very important for us to decide in the next couple of months.

Do you have something to say about that, Mr. Gechman?

Mr. GECHMAN: Only to reiterate the fact that it is a very large and complex endeavor; if it is done too rapidly and without coordination a tremendous amount of expense and, I think, failures will be encountered. As stated earlier, I believe that a system as immensely complex as this one should be done in a piecemeal fashion. I believe that the early establishment of overall standards and procedures is critical. It is essential to have extensive involvement of the federal government, in terms of financial support and pressure, to get the elements to comply with these standards and

procedures. That way, as all of these elements develop simultaneously, when they are eventually hooked up at the end, they will operate in a compatible fashion.

Chairman BURKHARDT: If I understand you correctly, I could still think of agreeing with you about building the system, but what about the plan? That is, getting the plan or group worked out in terms of when you start building the system?

Mr. GECHMAN: I cannot do justice to that question in the few minutes left because the problem is too involved. In general, you must go through some iterations. Start with alternative plans and carry each one down to a reasonable degree of definition. After you analyze them individually, and collectively, determine which ones are prime candidates. You take those few and go into further detail until you finally wind up with the one best plan. Since it may take a long time to evolve the full system, the plan should be as flexible as possible and have built-in alternatives to handle contingencies.

Chairman BURKHARDT: Well, thank you very much. It has been very helpful.

(At this point the hearing was closed.)

ANNEX

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D R A F T

A NEW NATIONAL PROGRAM
 OF LIBRARY AND INFORMATION SERVICE

National Commission on Libraries
 and Information Science
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PREFACE

This is an overview of a new program of federal and state support for libraries and information services now in process of development by the National Commission.

The National Commission views libraries and information centers as a national knowledge resource to be sustained and integrated for all citizens to use in the course of their personal and economic pursuits.

The Commission also believes the time has come to develop a national network of libraries and information centers as a total system rather than as a collection of separate parts.

Essentially, the new program now being formulated by the National Commission is based on three important assumptions:

First, that all citizens expect realistic and convenient access to library resources and information services in the United States for their self-enrichment and economic well-being.

Second, that the total information resource in the United States is a national resource which should be sustained and made available to the maximum degree possible in the public interest.

Third, that with the help of new technology and with national resolve the disparate collection of libraries and information centers in the United States can become an integrated national system.

I. THE NEED FOR A NATIONAL PROGRAM OF LIBRARY AND INFORMATION SERVICE

THE RESOURCE AND THE PROBLEM

Information, whether in the raw form of empirical data or in the highly processed form we call "knowledge", has come to be regarded as a national resource as critical to the nation's well-being and security as any natural resource like water or coal. The wealth of popular intellectual, scholarly, and research resources in its libraries and information centers is one of the great strengths of the nation. But like many natural resources, knowledge resources uncoordinated in growth and usage, are in danger of being inefficiently and wastefully utilized.

Only the judicious use of knowledge resources gives us power to solve the complex social and economic problems that will face our nation in the future.

In establishing the Commission, Congress affirmed that "library and information services adequate to meet the needs of the people of the United States are essential to achieve national goals and to utilize most effectively the nation's educational resources and that the Federal Government will cooperate with state and local governments and public and private agencies in assuring optimum provision of such services." Public Law 91-345 further authorized the National Commission to "promote research and development activities which will extend and improve the nation's library and information handling capability as essential links in the national communications networks."

Pursuant to its mandate, the National Commission recognizes that library problems and information needs may not be the same in every section of the Nation. It feels it imperative, therefore, to obtain first hand reports concerning adequacies and deficiencies from people who use libraries as well as from the professionals. Accordingly, the Commission holds regional public hearings throughout the country to obtain grass-roots testimony. In its own deliberations the Commission has focused on six facets of the problem:

1. The needs of users. Library and information needs are felt at all levels of society, regardless of an individual's location, social condition, or level of intellectual achievement. Each citizen must feel an identity with the local point of contact for his information and be able to gain access to the pertinent part of the total information resource which interests him.

2. The deficiencies in current services. Most libraries are crowded and understaffed. They are critically short of money because of the withdrawal of categorical federal aid, they are unable to keep pace with current demands, and they have little flexibility to undertake new programs of value to the people they serve.
3. The trend toward cooperative action. In order to keep local programs alive, many libraries have formed consortia or cooperatives. Useful as these stop-gap network arrangements have been they are not developing according to any national standard, nor is the financial commitment to their continuance permanent. Without technical standards for interstate and regional network development, we are in danger of spending large sums of money on piecemeal programs which may never connect.
4. The financial base for libraries. Because of diverse tax structures, some American communities receive library services according to their ability to pay, rather than according to need. In Denver, last year, the Commission convened a conference on "user needs" and learned that millions of Americans who need library service--particularly the under-privileged, the culturally deprived, and the geographically remote--are not getting it.

Moreover, the traditional federal funding structure for libraries has collapsed. Programs like the Library Services and Construction Act are being discontinued in favor of revenue sharing. Since libraries must compete with other local agencies for such funds, the amount available to them remains uncertain. It is most unlikely that revenue sharing funds will be allocated to library projects involving extra-jurisdictional services and facilities.

5. The potential of new technology. The library is affected by four new technologies: computers, micrographics, telecommunications, and audiovisual systems. The use of computers in libraries has already been pioneered and the principles of use are now well understood. However, direct application of computers has been minimal and there is a critical shortage of trained manpower to help libraries convert from manual to machine methods. The use of micrographics for

compact storage is increasing, but it is far from widespread. Some library experiments with telefacsimile and CATV have been fruitful, but there are only a handful of operating systems. And finally, while libraries have been reasonably active in acquiring audiovisual materials, there is still some reluctance to give the same attention to non-print forms of information--like films, slides, filmstrips, audio cassettes, video tapes, video cassettes, and digital tapes--that libraries give to books.

6. The staffing and manpower needs of libraries and information centers. The human resources required to plan, creatively manage, and operate the nation's libraries and information centers are poorly understood analytically. An assessment of the quantity and quality of the manpower to meet future demands for information services in the U.S. has not yet been made in any depth. It is clear that new approaches to educational programs will be needed in library science and information science if library technicians, professionals, and auxiliary personnel are to learn to function in non-traditional ways.

Libraries and information centers in the United States are not developing according to any national plan, and consequently, from a systems viewpoint, their growth continues to be uneven and uncohesive. A new philosophy of library and information service is needed, one based on a common sense of direction and purpose and a commitment to national cooperative action.

COOPERATIVE SHARING THROUGH NETWORKS

Libraries generally are not in a position to meet all the needs of their constituents. In a world having an unprecedented steady flow of information, no one library can afford the cost of purchasing all the necessary books, computer data bases, video tapes, audiovisual materials and other information. It is not surprising, then, to find that the level of library and information service in most parts of the United States is below American Library Association standards.

Librarians have long realized that service to their patrons can be markedly upgraded through "resource-sharing", in which any one library may augment its own holdings by having access, through loans, to the holdings of neighboring libraries. During recent years, libraries across the country began to develop new organizational relationships to facilitate the sharing of resources. These cooperative programs are variously referred to as regional library systems or library consortia. Unfortunately, though these arrangements are well-motivated and are pointed in the right direction, they are on too modest a scale and too frugal an effort to offer solutions that can be fitted to the nation's libraries as a whole.

Computers and communications--which have been developing in such spectacular fashion over the last twenty years--are now in a position to make nationwide resource-sharing arrangements economically feasible. These two powerful technologies, the computer and modern telecommunications, can be joined as the basis of a national network in which existing information systems and libraries are interconnected.

A national network involves the co-joining of general and specialized libraries and information centers throughout the country. This co-joining first requires formal organization in which these institutions agree to certain common programs. Then, it calls for the introduction of computer and telecommunications facilities to facilitate the exchange of information and materials among them. The purpose of a national network is to permit any citizen--be he a businessman, researcher, scholar or student--in the public or the private sector to access the total knowledge resource of the country from his own physical location.

The cost of establishing such a network will be large, and may raise doubts about whether the value of increased access to information is worth the price. A number of points, however, bear the answer. First, the logic of resource-sharing implies that a network is capable of absorbing part or all of its own investment

by reducing the financial pressure on each individual library in the network to buy all of its own books and materials. Secondly, the alternative cost of fifty independent networks plus the eventual cost of interconnection after the fact is clearly more expensive. Finally, the "value" of increased access to information, like the value of increased access to education, grows exponentially.

Many libraries, having understood this facet of resource-sharing economics, have moved ahead to form local network arrangements. Intrastate networks are being planned or are in partial operation in Washington, Illinois, New York, Wisconsin, Maryland, and California. Regional networks, such as SLICE in the Southwest, NELINET in the Northeast, and a new one which is forming among the states of the Southeast, are examples of emerging networks that will cross state lines. At the present time, these groups find it feasible to share only bibliographic data. However, others are already experimenting with interactive computer time-sharing networks for data retrieval and still others are investigating future use of electronic communications for the routing of whole books and documents from place to place as an alternative to mail.

While efforts toward building local network arrangements are commendable, they are proceeding at a very slow pace and without benefit of national direction. There is both hope and peril in this: hope because there is something in place on which a national network might be built, and peril because these networks represent an entirely new form of uncoordinated growth on top of the library growth pattern that has traditionally occurred. Uncoordinated network development can also be extremely costly. The alternative to building an organized national network is the continued proliferation of smaller, incomplete networks in different parts of the country. The National Commission fears that if this practice persists the disorganized aggregation could develop to the point of being incapable of future interconnection. It is for this reason that firm action by the federal government is now called for.

FEDERAL AID

Past federal aid to libraries, especially for school and university libraries, was mainly for the acquisition of materials. Its purpose was to ensure that each local community had resources adequate for serving its own constituents. This was a continuation of the practice started in the 1900's by Andrew Carnegie to provide grants to public libraries for the procurement of materials and physical facilities.

Even if the federal government would be willing and able to continue this kind of aid, there are ample signs that it would be insufficient to fill the gap that most libraries see between future needs and probable future funds from all sources, including federal. This gap is having a catastrophic effect on many libraries right now.

The recent cut-back in federal funding for libraries has not only limited their ability to buy books for local use but, even worse, it has had a curtailing effect on the amount and variety of information services offered to the public. As a consequence, libraries are beginning to engage in modest cooperative programs with other libraries hoping that by sharing resources they will be able to continue these threatened information services despite limited funding. At best, however, these are stop-gap measures. What is needed is a new federal investment policy in libraries, a long range policy which encourages local development while at the same time accelerating interdependent growth nationally.

It is a well known fact that America's expanding population is more mobile and more literate today than at any previous point in history: People move continuously from one part of the country to another while their sources of information and knowledge remain fixed in location. It therefore seems reasonable to propose that the federal government share in the responsibility to provide the telecommunications, technology, and systems development required to establish linkages between individuals in all parts of the country and information sources in each state.

For resource-sharing, -for the dissemination of specialized information, and for many other unsatisfied needs in what is truly an information-rich country, the major inhibiting factor is distance. It is evident that the type of telecommunications planning that would be embodied in a national program of library and information service would open the way to the conquest of distance and enable access to information wherever it may be.

Almost everyone agrees that the interconnection of libraries and information centers across state lines would constitute a national asset of immense proportions and vastly increase the

tempo and variety of knowledge exchanged within the country. To build a national library network on a state-by-state basis would be self-defeating and very costly. But, with shared specifications, shared systems, shared engineering know-how, shared telecommunications, and the introduction of national standards and procedures, it would be possible to justify and maintain a major federal investment in this area. Building a national network of libraries to promote knowledge and progress between and among the people of the states will require the same foresight that Congress had when it invested in the Interstate Highway Act to promote travel and commerce.

THE RATIONALE FOR FEDERAL INVOLVEMENT

While the federal government is broadly aware of the part played by libraries and information centers in national growth and productivity, the Commission believes that now is the time for the federal government to specifically begin dealing with information as a national resource. The Commission is recommending that the concept of a national program of libraries and information centers is a highly appropriate focus for governmental action because the concept is designed to promote a match between: (1) information needs that are more pressing than ever before; and (2) information technology that is nowhere more strongly developed than in the United States.

It should be recognized that the United States, though it may have a unique opportunity to plan its "information economy", is not alone in this position. Japan, West Germany, and other countries have published national plans which attest to the importance of national information policies and networks. We have more knowledge and data within our own borders than any other country, but if we fail to link these resources together nationally so that all can use them, we may be neglecting the most significant contribution we can make to our own productivity.

The implementation of a workable national program requires close cooperation between the federal government and state and local governments; such cooperation is most appropriately brought about through federal legislation. Legislation would adopt as its prime philosophical goal equal accessibility of the nation's libraries and information centers. In doing so, it will greatly increase our potential to attain our chosen national goals, increase national productivity, and improve the quality of life in America.

Information is a national resource for which the federal government must share a responsibility. Today this resource is not being managed adequately and is not meeting citizens' needs. For this reason the Commission believes that a federally sponsored national program offers a promising vehicle for dealing with the problem.

II. THE MAIN ELEMENTS OF A NATIONAL PROGRAM

The following pages propose a framework for a national program of library and information service. It is the view of the National Commission that any new national program must involve a partnership between the federal government and state and local governments in terms of both program planning and program execution. To achieve this will require that all parties involved have the fullest opportunity to debate the issues and confront the problems before the promulgation of federal legislation. For this reason, the Commission expects its proposed framework to undergo many changes before it is finally ready to form the basis of new legislation.

Briefly, the National Commission proposes a new national program for accomplishing an organizational and technological upgrading of libraries and information centers in the United States. The program advocates federal funding for the national elements of the program and funding by the states for their jurisdictional share.

The Commission suggests establishing a national authority in the federal government that will administer a national program of library and information service. The program assigns interstate planning functions as well as certain research and development responsibilities to the new authority. It also prescribes standards for the states to follow so that they may qualify to be members of the program. The Library of Congress and other national libraries are designated in the program as national collections. In addition, the facilities of the Federal Telecommunications System are enjoined to provide the electronic telecommunications necessary to exchange information messages and interconnect relevant computer installations.

Future legislation would outline the role of the federal government, the national libraries, and the states in the development and implementation of such a program; it would specify the functions which the new technology will perform as a central service; and it would establish the basis for appropriate federal and state incentive funding to guarantee a continuing intrastate investment in the program.

Some of the key issues which the National Commission believes must be addressed in developing the program follow.

ORGANIZATION

The National Commission regards as axiomatic that any effort to bring organization to the nation's libraries and information centers must result in the simultaneous maximization of: (1) the benefits that come from being part of a national program; and (2) a degree of local autonomy that is equivalent to that which libraries have always enjoyed. This philosophy, after all, is one that is common to many federal/local enterprises and that is implicit in the word "federal" itself.

At present there is no central authority in government empowered to set information science policy, direct a national program, or create a general purpose national network. Even though various parties in and out of the federal government have tried for decades to attain some degree of centralization in the nation's information services (at least at the policy level), no focal point yet exists in the federal establishment to formulate and execute policies relating to those activities.

Therefore, one of the important issues to be resolved in pursuing a national program for libraries and information service is deciding what kind of permanent operating agency is required at the federal level to establish policy and implement programs of national concern. Regardless of the ultimate structure chosen, it is evident that some central activity is needed to coordinate national library and information center development, to set and enforce national policies, and to undertake functions consistent with the federal government's responsibility.

Once the functions of an operating agency are defined it will then be necessary to recommend where the agency should be located organizationally in the federal government. At present there is no natural home for libraries in the federal establishment. Should a National Library Agency be created? Or, perhaps a quasi-governmental organization for libraries and information centers like the Corporation for Public Broadcasting? Are there other more desirable organizational formats?

RESPONSIBILITIES OF THE FEDERAL GOVERNMENT

The National Commission has identified the following principal responsibilities which belong at the federal level, but there may be more:

Planning the national program as a total system. This means giving continuing direction to the coordinated development of the nation's libraries, information centers, and other knowledge resources to make sure they evolve as part of an integrated national plan.

Administering the interstate portions of a national program. The interstate portions include such activities as providing national computer and telecommunication facilities; setting and enforcing standards for systems compatibility among states and regions; and coordinating library and information science research and development in areas of common concern.

Safeguarding national knowledge resources. This implies federal protection of unique resources of major importance to the nation and creation of central services, like periodical banks and bibliographic centers, under federal sponsorship for the use of all the states.

Designing a national network. This means doing the initial planning and subsequent systems development to achieve the interconnection of relevant national information resources.

Supporting intrastate network programs. This implies establishing a working technical partnership and a matching fund relationship between the national network and emerging state networks in order to achieve consistent mutual development and minimum duplication of effort.

Operating an extramural program. To achieve a technological and organizational upgrading of libraries and information centers will require new approaches to manpower development, continuing education, technical training, and other matters relating to human resources. In this area, the federal government has a responsibility to ensure that people required to operate a national program are educationally prepared and qualified for their jobs.

Cooperating with similar international programs.

Publicizing the program in the U.S.

RESPONSIBILITIES OF STATE GOVERNMENTS

It is the view of the National Commission that any new national program would rest on the understanding that the federal government would fund those aspects of the program of common concern nationally, e.g., telecommunications, in return for the states' willingness to accept responsibility for funding libraries within its own jurisdiction. If this type of quid pro quo philosophy were adopted it could very well create a national program that over the years would grow simultaneously from the bottom up and the top down. To achieve this, however, requires that the federal government and the states work out appropriate matching fund formulae that ensure that most steps taken by either will be mutually reinforcing. Federal legislation would spell out the obligations incurred by the states when joining the program, describe the services they would receive in return, and set forth matching fund criteria for development of the intrastate parts of the national program.

It may be that each state will choose to prepare corresponding state legislation that ensures a continuing state commitment to the national program, to the financial support of all types of libraries within the state, and to the exercise of its program responsibilities, such as:

Designating a major state organization to represent it in the national program and giving management direction to the development of libraries and information centers within the state.

Financing the state's share of its obligation to the national program and to state library development, according to formulas which take the entire state population into account.

Supporting libraries within the state so that they meet standards which qualify them to receive the benefits and services available through the national program.

Promoting the use of the national program among the people residing in the state.

Forming an intrastate network or regional networks with other states where appropriate.

THE ROLE OF THE LIBRARY OF CONGRESS

Because of its size, stature and comprehensive collections, the Library of Congress is the hub of the nation's bibliographic apparatus. Although the Library of Congress is not officially designated as a national library, it does, in fact, perform many common processing services and provide many user services for the libraries of the country. It receives and catalogs the bulk of the same titles received by other American libraries and the intellectual work which it does centrally offsets the need for local reduplication. The Card Distribution Service and the MARC (Machine Readable Catalog) Program, which includes making current cataloging information available on magnetic tape, are prime examples of the central work done by the Library of Congress which accrues to the benefit of most American libraries. The machine records of MARC may eventually form the nucleus of a computerized information system for a national network.

The Library of Congress is crucial to the organization of a national network because it has the capacity and the materials to perform many common services in both the areas of technical processing and reference and because it can set national bibliographic standards for the program. New legislation may be needed to designate the Library of Congress as having responsibility for integral aspects of a national program.

Examples of national functions which the Library of Congress could perform alone or in concert with other libraries are:

Expansion of national lending services and management of a national interlibrary lending system with the Library of Congress as the library of final resort.

Expansion to worldwide coverage of the National Program for Acquisitions and Cataloging.

Expansion of machine-readable cataloging to include cataloging in substantially all languages of current monographic, serial and other significant materials acquired by the Library of Congress.

Expansion of the MARC data base retrospectively to at least 1968, and then to the earliest date which can be shown to be cost beneficial.

Establishment of a National Bibliographic Center and development of uniform bibliographic procedures with the National Network Collections.

Operation of a comprehensive national reference and referral service.

Distribution of bibliographic data through on-line communication.

Operation of a national serials service.

THE ROLE OF NATIONAL COLLECTIONS AND SERVICES

The Commission recognizes that there are other institutions in the United States in addition to the Library of Congress, in both the public and private sectors, whose collections and services constitute unique national assets. The National Library of Medicine in the field of medicine, and the Center for Research Libraries in the field of academic research are just two of many collections in different fields that could play important roles in a national program. A new national program should have the means to protect and nourish these national resources whether they be research libraries, periodical banks, indexing and abstracting services, special libraries, or data bases. In their respective specialized domains, they would offer user services to all libraries in the country affiliated with the national program. Nothing currently exists to permanently safeguard or to develop these resources so that their use can be extended nationally.

A national program would be responsible for identifying these institutions and for supporting their continuation and maintenance. The program would also sponsor the establishment of other national information activities when it could be proven that a central service clearly would have cost/benefit advantages for the country. Examples include a national periodical bank, a national lending library, a national audio-visual repository, national documents services, etc.

It is true of almost any organization that some of its functions are better performed locally than centrally. However, in many aspects of library operation, no centralization exists at all; many libraries are duplicating effort, performing repetitive processing, storing similar materials, and giving incomplete or limited service to the public. National services that now serve the library and information community at large would be incorporated intact into the national program and others that are needed would be established. The criteria to be followed in designating national services or in recommending their establishment will need to be carefully articulated in proposed legislation.

THE NATIONAL NETWORK

The computer would ultimately become central in the operation of a national network. Many computer centers will be needed to help transform the machine-readable bibliographic records produced by the Library of Congress and other national libraries into by-products for local distribution, such as cards, book catalogs, special bibliographies, SDI services, etc. For each library to own its own computer installation would be prohibitively expensive, so the cooperative, multi-institutional approach to computer usage is proposed by the Commission as the most economic and efficient solution.

Computer installations in the network would be of two types, the first dedicated to bibliographic production (the processing of machine-readable tapes produced by the national libraries into by-products required by the local institutions), and the second devoted to service uses (recording holdings, making referrals, managing interlibrary loans, searching data bases, performing interactive searches of bibliographies and abstracts, etc.).

Existing MARC tape processing centers are examples of what the first type of computer center may be like. The second type, in its interlibrary loan version, would resemble the System of Interlibrary Communication now under study by the Association of Research Libraries. The existence of such computer centers may not offset the need of some libraries to maintain independent computer centers--possibly minicomputers--to satisfy local internal processing needs.

Federal legislation would designate the number and the location of Type I and Type II centers and support them with research, software, technical guidance, and perhaps even funds for equipment. Computers at this level of the national network would be a set of large, fast, time-shared information computers with many receiving sets in libraries. Computer usage usually implies economies of scale, suggesting that Type I and Type II installations will be massed to serve the processing and service needs of many institutions on an intrastate, multi-state, or regional basis.

The critical part of the national network concept is the means of interconnection of libraries and information centers over telecommunication lines. It is in regard to this element of the network that the greatest change in our thinking, about ways of dealing with recorded knowledge and about the very information metabolism of the nation, is required. Any system that transmits the volumes of information implied in interlibrary resource sharing will require great channel capacities. Recent developments in laser technology and micrographics portend advancements in the communication of information. Lasers and millimeter

wavelength radiation, between them, are capable of bringing telecommunications costs down by a factor of five by 1980, and with volume usage, no doubt even more than that.

A national network must, therefore, incorporate the means for communicating among the nodes of the network. While it is true that AT&T, Western Union, Microwave Corporation of America, and other companies are in the process of upgrading their commercial lines for domestic use, it seems that a library network exception to the federal telecommunications regulations will be needed to guarantee low telecommunication rates.

Needless to say, since the main purpose of a national network is to place the user in contact with his material, rapid and inexpensive telecommunications among libraries could turn out to be the greatest boon ever to the national distribution of knowledge for education and progress.

Whatever the cost to a member library might be in the usage of telecommunications facilities, there are still bound to be inhibitions. The federal government is in a position to give the whole network system an initial shot in the arm, through subsidization, until the entire scheme reaches a volume usage that ensures its economic viability. This it can do through legislation authorizing network participants the right to use the Federal Telecommunications System free of charge or at a sufficiently reduced rate. Many European countries have already begun to provide communication links at lower tariff rates in order to influence and stimulate the development of national information systems.

III. EPILOG

Unless we take steps now to develop a unified program of library and information service in the United States, the National Commission believes the current system of libraries and information centers will be unable to cope with the nation's growing information requirements.

The Commission views the outline of a new national program presented in this paper as a beginning. We hope during the coming year to refine our ideas by exposing them to the widest possible range of public and professional opinion and criticism. Our goal, however, is clear and we are firmly committed to it. We want to give everyone in the country, regardless of social or economic condition, equal access to the rich information resources this country possesses.

Certainly the task will not be easy. It will take intense professional energy to work out the complex problems inherent in such a program and to weigh the potential benefits and costs of new concepts and new solutions. But we are confident that by the end of a year, and with your help, we will have solidified the case for recommending new federal legislation.

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