The Media Committee of the Atkins Library of the University of North Carolina performed a 3-month study to review the library's existing policies on media resources and services and to make recommendations for improvement and expansion. As a result, the integration of all learning materials and services at the university was proposed, with the desired objective of attaining better overall services for the university community through more efficient use of personnel and resources. A major administrative reorganization was proposed to lodge all responsibility for media resources, services, and programming within one campus agency. Further specific recommendations were made covering staffing, facilities, services, and the handling of nonprint media. Job descriptions for expanded library services are appended. (Author/PP)
LEARNING MATERIALS AND SERVICES
AT THE
UNIVERSITY OF NORTH CAROLINA
AT CHARLOTTE

A Report of the
Atkins Library Media Committee

J. Murrey Atkins Library
University of North Carolina
at Charlotte

October, 1974
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PREFACE

The following report is the result of nearly three months work by the Media Committee of the J. Murrey Atkins Library, University of North Carolina at Charlotte. The Committee was appointed by the Director of the Library to review existing policies in the area of media resources and services, and to make recommendations for improvements and expansion.

It became apparent to the Committee that a broad view of learning resources and services at the University was necessary. We therefore undertook a review of educational technology, its implications for higher education, and in particular, its impact on libraries.

A search of existing literature was conducted and individual committee members were assigned specific areas to investigate. Information was gathered, analyzed, and then related to the Atkins Library, the University, and present conditions.

Our report is divided into three main sections: Section I contains a brief review of educational technology, the role of libraries, and integrated media services; Section II proposes a reorganization of the library to begin the integration of resources and services, and thereby expand and improve them; and Section III is a series of recommendations, including suggested studies, to be considered for implementation as soon as possible after administrative reorganization takes place.
Appended to our report are position descriptions for expanded library services.

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Section I

EDUCATIONAL TECHNOLOGY AND THE LIBRARY

It is generally acknowledged by those forecasting change in American higher education that the use of media resources for the transfer of information, for instructional purposes, and for educational communications networks, is a technology of current significance and one that will be of prime emphasis in the future. According to James Cass, innovations sparked by technological developments, with the added "crucial problem of financial survival" will "in some cases ...force radical departures from traditional practices; in others they will merely continue and speed trends of long standing." ¹

C.R. Carpenter notes that research has established the effectiveness of instructional technology in higher education and that it can now be put to practical use. ² And Robert Weisgerber indicates that innovative media technology can enhance the quality of instruction. It offers an alternative, he tells us, to the conventional classroom lecture, providing "more flexible and creative formats for instructor-student communication." ³


The role of libraries in the "instructional technology revolution" is no small or ancillary part. In its report on the impact of instructional technology on higher education, the Carnegie Commission strongly emphasized the central role which libraries should take in coordinating learning resources and functions in this area:

......the library should occupy a central role in the instructional resources of educational institutions....Considerable progress has been made by libraries in introducing automation into their operations; in developing networks for the sharing of catalogs and collections by many institutions; and in accommodating films, recordings, tapes, and other nonprint materials in systematically organized storage and retrieval systems....We therefore regard libraries as promising catalysts of continuing innovation and development in the use of technology by colleges and universities...

Recommendation 4: The introduction of new technologies to help libraries continue to improve their services to increasing numbers of users should be given first priority in the efforts of colleges and universities, government agencies, and other agencies seeking to achieve more rapid progress in the development of instructional technology. 4

It is to be expected that libraries expand their services to include knowledge recorded and transmitted in forms other than the printed page. The Commission report referred to above expressed the importance of maintaining "nonprint information, illustrations, and instructional software components...as part of a unified informational resource,"

and assigns this responsibility to the library. Lester Asheim has recently pointed out that the whole concept of dealing separately with "nonprint" materials is erroneous and leads to a distinction between different forms of communication—all of which are equally valid sources of information.

The effective use of instructional technology relies heavily on central planning and coordination of resources. The instructional-resource center... is already available in whole or in part on some campuses encompassing the whole realm of "information and knowledge stores." Carpenter stresses, however, that a necessary trend towards the growth and amalgamation of such centers would require their coordination "into integral systems of the varied and appropriate materials needed for planning, organizing, producing, and recording programs for stimulating and guiding learning activities." Coordinating these activities would result in an economy sorely needed at a time of rapid increases in costs. Investments in duplicated facilities, equipment, resources, and staffing could be eliminated.

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5Ibid., p. 34.
6Lester Asheim, Introduction to "Differentiating The Media," the thirty-seventh annual conference of the Graduate Library School, University of Chicago, August 5-6, 1974.
7Carpenter, "Towards A Developed Technology," p. 238.
8Ibid., p. 239
A unified yet flexible organization of services, allowing more accurate projections of programs and their costs, would also result in more effective administrative planning. In a chapter of its report entitled "Libraries and the Information Revolution", the Carnegie Commission endorsed a commitment to coordinating investments in a central library organization. Writing of the additional costs to be incurred as additional functions are assumed, it states:

Some of these new costs may be offset by consolidating in the library budget those funds that are spent by an institution on existing isolated and independent units which store and distribute learning materials and equipment.⁹

Integrating resources into a central library complex should result in an increased demand for nonprint materials and new services, as teachers and students become more aware of the services that are available. In an integrated and coordinated center, professionals with specialized knowledge in their various fields would be able to develop the entire range of services and resources needed by the academic community. Library expertise in the acquisition, organization, information - accessing, and circulation of materials would be applied to all types of print and nonprint resources. Media specialists and technical staff would be able to help coordinate the greater use of instructional hardware, and develop communications and broadcasting facilities on campus and throughout the community.

⁹Carnegie Commission, *Four in Revolution*, p. 34.
Just as coordinating services to individual users would result in the optimum use of facilities, coordinating efforts towards instructional development should increase the effectiveness and quality of the instructional program. The library could foster innovative opportunities for individualized learning, independent study, and continuing education programs.

Convinced, therefore, that redundancy of costs can be eliminated and enhancement of services achieved through a centrally administered organization, we recommend the full integration of all activities relating to learning materials and services at the University.
Section II
THE ATKINS LIBRARY AS A LEARNING CENTER

The integration of all learning materials and services at the University is proposed, with the desired objective of attaining better overall services for the University community through more efficient use of our personnel and resources. To realize this objective, a major administrative reorganization will be required. All responsibility for media resources, services, and programming should be lodged within one campus agency.

The University now has a library primarily concerned with print materials, a learning resources center involved in production and equipment delivery service, and many other smaller units which are developing isolated pockets of instructional materials and equipment. Under the present system, duplication of resources is inevitable, unified bibliographic control impossible, collection development uneven, and optimal service unobtainable.

Centralization of authority for coordinating the functions and activities of these units is necessary in the very near future if the University is to avoid the costly mistakes of other institutions that have tolerated duplicative resources and competing services. The administrative advantages to such a reorganization are obvious: planning can take place with direct information from all concerned; staff can be utilized more efficiently; resources can be allocated for the benefit of the entire University; programs can be coordinated for greater effectiveness; and accountability for performance can more easily be assessed.
Although coordination of the activities of the various units responsible for instructional support services may be possible to some extent in the present situation, complete coordination and realization of administrative benefits will only result when authority and responsibility are centralized. We recommend that this authority and responsibility be centered in the Atkins Library.

With certain modifications in its present organizational structure, the library can begin the assimilation of all related instructional support services. Unlike other campus units involved with information organization and transfer, instructional technology, and media, the library has the entire university as its community of users; the value of its services is recognized by students, faculty, and staff; it is looked to as the central facility for providing resource support and expand upon the classroom learning experience. Adapting the library to efficiently acquire, organize, store, retrieve, and disseminate information and materials regardless of form, the library already is the nucleus of a campus learning center and is logically the place which should assume responsibility for all instructional support.

Throughout the country academic libraries are confronting the information explosion and the new technology by reassessing traditional roles and organizational patterns. In the face of expanding technology and expectations of better, varied, and more services, it is becoming increasingly apparent that structures worked well for the passive, print-oriented institutions of the now inadequate. While some libraries have reacted by adapting structures, through the creation of "audiovisual departments" or
centers," many are beginning to realize that merely adding library
departments is only a partial, and quite often an inadequate, answer.

Solutions must be sought in far-ranging analyses of total operations.
Many are finding that library activities must be reviewed in relation to
those of other campus units and that new structures based upon similarity
of functions will be necessary. With this report, we have begun such
a review of our operations, but it will have to continue, will need to
be broadened, and will require the support and participation of others
both within and outside the library.

In its "Guidelines for Audio Visual Services in Academic Libraries,"
the Association of Colleges and Research Libraries stresses that "fa-
cilities for the production of graphics, photographs, recorded materials
and other instructional materials should be available."10 This guide-
line is a reminder that libraries are not merely repositories for
commercially-produced print, or even non-print, materials, but service
agencies responsible for providing, by whatever means possible, the
resources necessary for the support of the instructional program. With
the production of instructional materials now occurring outside the library,
cooperation between individuals with technological expertise and the library
staff members familiar with commercial products is non-existent.

Furthermore, it appears that materials presently being produced for
individual users are not being returned, retained, organized, and accessed
for later use by others, but instead are being lost to the University.

10Association Of College And Research Libraries, Audio-Visual Committee,
Guidelines For Audio-Visual Services In Academic Libraries (Chicago:
If locally-produced high-quality software were integrated into the library collections, reference specialists could assure that these important University resources were utilized effectively. Media programs and materials produced on campus require the same organization, storage and retrieval for subsequent use and dissemination that commercial items do. Library systems and procedures exist to perform these functions which the present unit responsible for production can only carry out through costly and time consuming efforts.

A British writer, B.J. Enright, observed that:

As more media materials are produced, and the demand to use them in both teaching, learning and research situations increases, the need for some kind of organization of the media resources within educational institutions will become unavoidable. Initially, when the quantity of the materials produced is small, their control may be attempted by the production unit itself...

Invariably, as the collections grow and traffic increases, the unit is then generally confronted with a conflict of interest between servicing the holdings and what is normally regarded as their primary purpose, the production of new material.

In certain cases it may be decided to establish an organization separate from the library to deal with enquiries and loans, and maintain the collections of materials. Experience of such independent units in the United States has not been uniformly satisfactory. Often they are developed in complete isolation from the library, sometimes even in hostility to it... 

If the University is to provide its learning materials for every campus user who requires them, and provide them in the most efficient manner, then isolated, duplicative units offering competing service

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11B.J. Enright, *New Media And The Library In Education* (Hamden, Connecticut: Lint...t Books, 1972), pp. 87-88.
cannot be allowed.

Bringing campus hardware delivery and maintainence services under the library should also prove to be a more practical and beneficial arrangement. Such matters as hours of operation, standardization of equipment and expenditure of University funds for audiovisual hardware could be more easily coordinated. Joint storage facilities would be possible and better maintainence schedules for valuable University equipment could be established.

Therefore, based upon an analysis of purposes and functions, we have concluded that merger of library resources, personnel, and services with present operations and activities relating to production of instructional materials, maintainence of equipment, and delivery services and systems should be effected as soon as possible.

With the present University concern for adequate facilities within which to house its many programs and services, it is essential that continued efforts be made to more effectively utilize existing space. Areas for public services, instruction, offices, work, storage, and recreation must be carefully reviewed to assure that during this often-frustrating period of rapid program expansion space is not being wasted. The recently-issued Campus Planning Workbook, which provides detailed studies and recommendations for future development of the University, includes projections for additional library buildings. In its "Massing and Space Analysis," space for audiovisual facilities is listed as part of the future library. It would appear that the library is being viewed, quite accurately in our opinion, as a multi-media center. A centrally
administered library center encompassing all media related activities would be able to view functions and purposes with an awareness of the necessity for economy of space for present operations, and could plan more intelligently for future growth.

While recognizing that further study and continued review of the entire library structure will most certainly lead to additional changes and rearrangements, we believe that at the present time a library department for production of instructional materials and for equipment services should be established. Such a unit could be created by placing existing staff, resources, and facilities connected with production activities under the administrative control of the Atkins Library. This unit could be successfully and speedily integrated into library operations with a minimal amount of inconvenience or disruption of service.

This library department would have as its major responsibility the development and production of learning materials and the servicing and maintainence of all equipment. Its present and future professional staff would be members of the library faculty and its Director or head would operate at a level appropriate to his responsibilities. It is expected that the unit could operate with a relative degree of autonomy within the library structure, having responsibility for budgeting, while coordinating its plans and programs with other departments of the library. It is, of course, expected that following the reorganization, internal library functions and structures will continually be reviewed and re-evaluated to achieve maximum efficiency and service.

The arrangement for handling media resources and services described
above is believed to be most functional and in the best interest of all the members of the University community. We cannot emphasize more strongly that present library operations are organized to handle non-print as well as print materials, that the content of materials should always be of primary consideration in building a collection, and that segregation by form, whether for acquisition, organization or servicing purposes, would be to the detriment of the entire instructional program and a mistake of enormous future consequence. We therefore specifically discourage the establishment of any separate department for audiovisual services within or outside the library.

The course of action being recommended should certainly lead to better instructional services. Continued progress, however, will require a commitment to an expanded use of instructional technology and a recognition of the library, in the words of the Carnegie Commission, as a "promising catalyst of continuing innovation and development in the use of technology, and an "indispensable component of any effort to fully utilize" it.\textsuperscript{12}

The commitment will, of necessity, be a financial one, for educational excellence continues to be a costly enterprise; but just as important, a successful instructional technology program centered in the library will require administrative time, interest, and involvement. The changes, the costs--the commitment--cannot be avoided if a university of quality is what we seek.

\textsuperscript{12}Carnegie Commission, \textit{Fourth Revolution}, p. 51.
A recognition that separate campus units are performing functions similar in nature, and that joining some of these would result in better services, more economical use of resources, and administrative benefits is the basis for our recommendation of an administrative reorganization.

We believe that such a reorganization will enable everyone involved to address the many complex problems of providing instructional support services of all kinds and materials in all forms. The suggested reorganization will in itself be a significant beginning in dealing with these problems, but more importantly, it will allow for a coordinated approach, opportunities for further study, and consideration of new directions.

The remainder of this report provides suggestions, possibilities, and recommendations for staffing, facilities, and services in a library that records all kinds and forms of information and communication as part of its resources.

Staffing

Library activities and structures should continually be considered in terms of function. A newly reorganized library will have to be viewed with the following basic functions in mind: (1) acquisition; (2) production; (3) organization; (4) circulation and storage; (5) maintenance and repair or materials; and (6) reference and learning assistance. Staffing re-
quirements should be related to these and determined by functional job analysis which allows for the objective description of the employee's duties and for the systematic classification of the tasks involved. In developing the library staff for additional services, we recommend that the following guidelines and suggestions be kept in mind.

The library personnel can be considered as grouped into four categories: (1) the directive or administrative group; (2) the professional staff; (3) support staff; and (4) student assistants. Administrative personnel should be responsible for the management of library operations and for the establishment and realization of goals and objectives. Duties include planning, budgeting, supervision, and the provision of positive leadership. Administrators should possess advanced academic or terminal professional degrees and have extensive experience and background.

Professional staff are those using specialized skills, education, and experience to identify needs, analyze problems, and formulate solutions. They help to plan, organize, communicate and administer the library's programs. They should have recognized terminal degrees (e.g., librarians, media, television or film specialists, television engineers, generally possess terminal degrees).

Support staff, which can be broken down into clerical, technical and artistic production groups, should perform the routine tasks and procedures of the library. Work experience and specialized education and training will be required for many support positions.

Student assistants should be used for internal housekeeping activities,
completing and performing the procedures developed by other staff. Students already trained or with work experience should be preferred, but in any case everyone should be required to attend training programs (in-house) where they can learn and develop additional skills.

As the University grows and its library expands its collection, takes on other activities and provides new services, additional staff members with special types of educational backgrounds and experience, will be necessary. Using functional job analysis, some possible positions for the future are detailed in Appendix A. These are suggested for further study and use as library activities broaden. They would be in addition to positions necessary for carrying on what have been traditional library functions.

Priorities for adding new positions should be given to those functions where immediate need is the greatest. Key administrative positions will have to be filled in the initial stages of new and expanded program development, and support and student personnel will have to be added. A central library administration, overseeing and directing staff growth in response to total University needs, will assure that the required staff increases occur with minimal demands upon financial resources. All staff will require orientation, information, instruction and training in the operations of a library that will no doubt be quite different from the existing one.

Facilities

A library that is to have a meaningful instructional technology program must obviously give close consideration to the facilities
necessary for supporting it. Adequate, adaptable and comfortable space, and suitable equipment of sufficient quantity and quality should be of prime concern. Even a minimally acceptable program will be impossible without attention to these essentials.

Areas given over to library activities and all others related in function should be reviewed and revaluated to determine if space is adequate for the tasks being performed, if it is being utilized in the best manner, and if improvements through combining or altering of functions can be made. Location of units, services, and activities should be studied and related to user access, flow of work, security, and efficiency. The problems of providing adequate service in limited space should be analyzed and solutions advanced, even if they are temporary. It is not too early to begin a searching analysis of space requirements for the future, an analysis based upon anticipated growth rates which will consider not only the amount of space necessary, but also the type of space and how it should be used.

Throughout these reviews, studies, and analyses, the library should be seen as a totally integrated multi-media facility. In planning for ultimate usage of the original Atkins building, in considering the possibilities of the two new structures projected in the Campus Planning Workbook, in developing services elsewhere on or off campus, we must guard against a restricted view of the library.

To take the greatest advantage of the wide range of media that can be made available through the library, we will have to re-think traditional means of storing and circulating materials and re-consider our attitudes
toward use and location of audiovisual equipment. The problems existing in these areas are perhaps among the most difficult to be encountered in planning and implementing an integrated library media program, but they must be addressed and should not be looked upon as insoluble. While we are aware of these problems and cognizant of the difficulties in adapting our present buildings and procedures, we believe the library should begin to integrate into one general collection all learning materials, be they print or non-print. We recommend that an investigation be made into the possibilities of intershelving all forms of materials -- books, microforms, films, slides, serials, phonodiscs -- whatever the library collects. We recognize that obstacles to intershelving such as loss and damage, classification costs, additional hardware requirements, and storage problems, may become apparent; nevertheless, our preliminary review has indicated that intershelving has been found workable in certain libraries and that an increasing number of others are considering it as an answer to full media use and service. We urge a study to determine the feasibility of this concept at the J. Murrey Atkins Library.

At the thirty-seventh annual conference of the Graduate Library School, University of Chicago, August 5-6, 1974, Richard Doak, audiovisual consultant for the state of California, presented a paper in which he indicated that intershelving of all materials has been recommended for all California libraries.

Durham Technical Institute, Durham, North Carolina and the College of DuPage, Glen Elyn, Illinois, intershelve all materials. In addition, numerous other libraries, from school media centers through colleges and universities, intershelve to some degree. According to Mr. Doak, libraries should, at the very least, intershelve all of the non-print media among themselves.
No expanded media program can be contemplated without a consideration of hardware requirements. A wide variety of modern equipment that is well-maintained will be necessary for use in the library, for circulation outside of it, and for delivery and use wherever the University needs it. Although new items will have to be obtained, coordinated and planned use of the present pool of equipment will make excessive expenditures in this area unnecessary. But coordination and planning are necessary.

Certain items will have to be restricted to the library, others lent for limited time periods, still others lent subject to immediate recall. Delivery systems should be evaluated, location of service facilities considered, storage areas investigated and maintenance capabilities assessed. The obvious importance of equipment availability need not be stressed. The many difficulties allied with providing this equipment, as well as those relating to storage and use of audiovisual materials, are equally obvious and must be dealt with now.

Services

A library organized, staffed, and equipped to operate as a multimedia learning center does so through the services offered its users. Centralization of similarly functioning units, an expanded and varied staff, and modern facilities must result in better services, and it is with the intention of achieving this result that the foregoing recommendations have been made. The commitment to an integration of materials and services requires that all of the library functions be
reviewed to ascertain how they might better contribute to the fulfillment of informational and instructional needs.

The library presently acquires learning materials in all of their forms, processing requests for books, cassettes, films, phonodiscs, microtext, film loops, tapes, prints, learning kits (which are combinations of many of these) and other items. No policy limitations on format restrict the acquisition of necessary learning materials; indeed, policies have been changed, updated, improved, and budgets revised to keep pace with advancements in the publishing and information processing field. The University is thus assured that the best types of materials are available within its means. We urge that the Atkins Library continue to develop policies and procedures which will allow for the most efficient acquisition of all kinds of learning materials, and continue to be mindful of its responsibility to make available, in whatever form, the best learning resources possible. To do this, acquisitions personnel will have to keep abreast of rapid changes in technology, being aware not only of what can be obtained in which form, but also whether hardware is available on campus to use the materials acquired. They will have to have the specialized bibliographic tools required to identify non-print items, and become as familiar with audiovisual software and equipment distributors as they have been with publishers and library supply houses.

Possibilities for broadening the present acquisition operation should be investigated with consideration given to the development of a unit which oversees total library acquisitions. Requisition of
supplies and equipment, rental of films, and borrowing of books from other institutions, are some examples of activities not normally part of an acquisitions department's responsibilities, but activities which conceivably could be taken on if our view of function is not obscured by tradition. We should, at the least, be willing to study such possibilities.

Although purchase is by far the most frequent method used to obtain materials for instructional and informational purposes, the library also rents certain items and quite often borrows materials. Increasingly, however, there is a need for certain types of instructional items that are either unavailable elsewhere or whose cost makes acquisition from another source prohibitive. The capability to produce materials that are deemed necessary for the University's programs is an important one. A production unit is able to offer individualized and fairly rapid service, providing teachers, students, and other users, instructional materials designed specifically for their situation. So long as the content of the item produced is of greater concern than high technical quality, a production facility can make available a wide variety of learning materials in relatively short periods of time. And this need not be an enormously costly operation. The production of satisfactory instructional materials and programs does not require an inordinate amount of expensive, highly-sophisticated equipment.

We feel production to be an important and integral part of library operations and a function whose usefulness will become more apparent each day. We recommend that present capabilities be reviewed and that
Coordinated planning for expansion of the existing program began.

Particular attention should be paid to the potential for wide utilization of television as a medium of instruction at the University, as well as dial-access systems, and to the host of other applications of educational technology that have been found to be successful at other institutions.

As the library acquires all forms of materials, so does it store all of these for use. Audiovisual materials, like print acquisitions, are bibliographically described in order to provide access and information on a particular topic to be obtained from whatever source. The importance of proper description of non-print items has been recognized by the establishment of an audiovisual cataloging position, and efforts are continually being made to have methodical bibliographic access to the valuable information contained in these materials at the level now existing for print resources.

To further enhance the accessibility of the University's multimedia learning materials, we make two suggestions. First, that the classification of all media be considered. The current practice of consecutive numbering by form does not allow for "media browsing" as does classification. Furthermore, if the physical and financial obstacles to intershelfing were to be overcome, classification of audiovisual software would be necessary before this could occur. Also, as multi-media packages, which may contain books, filmstrips, phonograms, and phonodiscs, are acquired, it will become increasingly impractical...

14See "Nonprint Media Cataloging, Classification, and Design Recommended Standards," Southeastern Librarian, Winter 1974, pp...
if not impossible, to separate these items which are intended to be
used together. Thorough study of this matter should occur, for such
a project is not to be entered into lightly; but the benefits in
terms of total accessibility to resources appear to be substantial and
therefore such an undertaking should be promptly investigated.

Our second suggestion is that a complete inventory of all University
learning materials, print and non-print, take place, and that if possible,
a plan be devised in conjunction with the University community, to provide
bibliographic access to all of these non-library materials. Bibliographic
organization of all of the University's learning resource materials
will result in better use, less duplication, and significant savings.
We are not recommending, however, that the library be given responsibility
for these materials, removing them from present locations and controls.
We simply ask that thought be given to the wealth of materials scattered
about the campus, which is presently of little value to most students,
faculty, and staff because its existence is generally unknown and
because there are no means of access to it.

Materials acquired or produced and then organized have to be stored
in some way until they are later used and circulated. It continues to
be the policy of the University that library collections be centralized.
This is felt to be in the best interest of all users and in this we
concur. The library is the only unit on campus which is open a significant
number of hours with staff, facilities, and procedures to service and
secure materials. While we recognize that long term use of certain
items, and usefulness of materials in proximity to the classroom, are
convincing arguments for degrees of decentralization, persistent lack
of control, poor organization, and the absence of effective operational schedules, lead us to conclude that, for the present, the policy should remain unchanged. We also believe that all library materials should fall under this policy and that the practice of making long-term loans of significant portions of audiovisual collections should cease. We are sympathetic to the needs and desires of those colleges and departments which have expressed concern in this area, but we feel that until adequate resources are available to provide levels of service which are, at a minimum, equal to current library standards, extension of library services and facilities beyond the present Atkins building should not be considered.

In our remarks on facilities we urged that a study of the feasibility of intershelving be conducted. We repeat that recommendation here. We have found most encouraging the reports from other libraries that the availability of all forms of audiovisual items, classified and interfiled with print materials, with adequate equipment for utilization, has lead to increased awareness and use of the wide range of valuable audiovisual resources.

As circulation of non-print materials increases, there will certainly be a corresponding demand for the circulation of accompanying hardware. Loan of such items as cassette players, microform lap readers, slide projectors, and other easily circulated pieces of equipment could be coordinated by the same unit responsible for the circulation of books and audiovisual software. Indeed, an analysis of the circulating or disseminating function might reveal that the provision of all equipment, whether by loan in the library or delivery outside of it, should be part of a larger system which makes available all materials.
With the wear and tear on book and journal collections, libraries have found it necessary to maintain mending operations. Often, as in the Atkins Library, this is an activity of the cataloging department. But with widespread usage of audiovisual software and equipment, a much larger and more sophisticated unit will be necessary to maintain and care for resources. Such a unit could inspect materials and equipment upon receipt and after each circulation, repair damaged items, perform preventive maintenance, and alert appropriate personnel when replacements are necessary. A technically skilled staff would be required for these activities, but the investments made in such valuable resources make this unit essential. We recommend that the establishment of a care and maintenance unit for all of the library's materials and equipment be studied.

A service which integrates many of the others, bringing them together to achieve the goals of the library, information reference and learning assistance, is the final function. In a narrow sense, this service is the staff of the traditional reference department able to call upon the additional skills of media specialists and learning experts in a new library. It is a corps of reference bibliographers, knowledgeable in subject areas and library use, interpreting resources while building the collections. But, looked at from a wider perspective, it is an entire library unfettered by traditionalism, a library that places no restraints on how, where, and through what means it will provide information and learning assistance, a library fulfilling its purpose. It is the library as a center of learning.
In his 1971 survey of the audiovisual services of the Atkins Library, Budd Gambee, Professor of Library Science at UNC-Chapel Hill, wrote:

Thanks to years of work on the part of the library profession, American faculty and students today take for granted large collections of books, attractively housed, minutely cataloged, and readily accessible in their academic libraries. It is historically understandable that the library has specialized in the book, but the library skills built up over many years in book services must now be extended to non-book areas as well if the library is to continue to serve at the same level of excellence in an era where more and more learning is gained from sources other than books.\textsuperscript{15}

But he continues, "The library which seeks to become truly multi-media in its approach needs to break out of the vise of tradition", and not be hampered by those who would "stand pat on the older concept of a library and priorities which do not allow for the desired change. It is . . . imperative that the philosophy of the central 'learning center' library be understood and backed by the administrative authorities of the university."\textsuperscript{16}

Our first section, which concludes by calling for the integration of all learning materials and services at the University, (p. 7) attempts to make this philosophy understood. Our recommendation


\textsuperscript{16}Ibid., p. 5.
of an administrative reorganization (p. 12) asks that this philosophy be backed.

If a decision is made to commit the University to an integration of resources and services, and the initial step of administrative reorganization is taken, the library should initiate studies in the areas suggested in Section III. These are summarized below:

- Space requirements for the future (p. 18)
- Feasibility of intershelving of materials (p. 19)
- Broading of acquisition operations (p. 21)
- Expansion of the production program (p. 22)
- Classification of all media (p. 23)
- Providing bibliographic access to non-library learning materials (p. 24)
- Expansion of the circulation and delivery function (p. 25)
- Establishment of a care and maintenance unit (p. 26)

These investigations should provide the information necessary to move the library, in the words of Dr. Gambee, "forward with the times", allowing it to expand its services "to include the multi-media approach to education so characteristic of this technological age".¹⁷

Appendix

POSITION DESCRIPTIONS

1. Director for Production

Responsible for coordinating the various units of the Production Department of the library (i.e., television film, sound, and photography)
Develpdes goals and objectives with the advice and direction of both library and university administration, and the advice of university faculty committees
Develops overall plans for the operation of the Production department including the projection of a budget, review and selection of equipment for purchase, etc.
Approves and participates in the selection of personnel
Reviews staff positions, organization, operation and objectives of the department
Recommends changes to the Director of the Library
Prepares an annual report of operations
Serves as liaison to teaching faculty in the development of classroom materials

Qualifications:

Appropriate educational background and experience with all major forms of production (i.e., television, film, sound, and photography)
Considerable knowledge of educational and production development
Considerable administrative background

2. Television Unit Coordinator

Responsible for overall administration of a television unit to produce programs (either for classroom use, extra curricular university use or general broadcasting) within the educational goals and objectives of the university
Develops goals and objectives for the unit with the advice and direction of university administration and the advice of university faculty committees
Develops overall plans for the operation of the unit including projection of a budget, review of equipment to be purchased, and review and approval of television programs to be produced.

Develops a production schedule
Coordinates the operation of sub-units
Approves and participates in the selection of unit personnel
Reviews staff positions, organization, operation and objectives of the unit
Recommends policy changes to the Director for Production
Prepares an annual report of operations
Supervises personnel within the unit
Arranges for classroom use and/or broadcasting of programs produced
Represents the university, the library, and the unit to the community (local, regional and state) outside the university
Explores additional ways television can be used within the university and determines how programs can be broadcast or made available to the outside community.

Qualifications:

Appropriate educational background and experience including a broad knowledge of educational television and its applications
Considerable knowledge of television program development and production
Considerable administrative background

3. Television Program Coordinator

Responsible for supervision and administration of the sub-unit concerned with the development of the intellectual content of programs produced by the television unit
Develops priorities and objectives for program development under the direction of the Television Unit Coordinator
Selects subject areas for television programs
Assigns responsibility for developing individual program content to program assistants
Aids program assistants in development of program formats and content
Estimates resources and materials needed for program development including costs of individual television programs to be produced
Arranges with production personnel for necessary television, sound, and other equipment, and for lighting, sets, and personnel needed for television programs.

Informs Television Unit Coordinator of progress of the section.

Makes weekly, monthly and/or annual reports as directed.

Reviews organization of the section and make recommendations for changes.

Qualifications:

Appropriate educational background and experience.

Broad knowledge of educational television and its uses.

Strong background in development and design of television programs.

Administrative experience.

4. Program Directors and Assistants

Develop content for individual programs produced by the Television Unit.

Contact individuals within or outside the university who have the subject experience to contribute to program content.

Plan formats for programs.

Estimate production needs and costs.

Arrange program details such as scripts, participants, etc.

Report to Television Program Coordinator on progress of individual assignments.

Qualifications:

Experience and interest in the development of television programs.

Interest in educational television.

5. Television Unit Secretaries

Responsible for carrying out secretarial duties including typing correspondence, reports, and memoranda.

Complete minutes of meetings.

Assist with financial reports.

Prepare materials for publication.

Photocopy, keep records and schedules of program development and production, answer telephones and perform regular receptionist duties.
6. Television Production Coordinator

Responsible for supervision of a sub-unit made up of production personnel, including television camera operators, sound equipment operators, set builders, lighting operators and other technicians.

Provides expert advice to program personnel, as needed, on available resources for production.

Organizes and supervises sub-unit in the production of programs.

Reports to the Television Unit Coordinator on needs for personnel, equipment, and supplies.

Reviews operation of section.

Reports to the Television Unit Coordinator on the progress of section.

Qualifications:

- Broad knowledge of educational television and technical aspects of television production.
- Specialized educational background and administrative experience.

7. Television Production Assistants

Carry out functions in areas of specialized training (e.g., operate television cameras, operate sound equipment, operate lighting equipment, build sets, provide props, etc.).

Provide expert advice to program personnel when needed.

Qualifications:

- Appropriate specialized training and experience.

8. Assistant Engineer for Television Production

Assists in the administration and operation of the sub-unit.

Assists in the operation and maintenance of equipment.
Qualifications:

Some electrical engineering course work as well as background and experience in the operation and maintenance of electronic television equipment

9. Television Production Engineer

Responsible for administration of the sub-unit which maintains and operates electronic television equipment
Reports to the Television Unit Coordinator on the operation of the section
Supervises personnel
Recommends equipment and personnel needs for the section

Qualifications:

Appropriate background and experience in the operation and maintenance of television electronic equipment
An understanding of the theory and operation of electronic television equipment
Administrative experience

10. Student Assistants for Production and Engineering

Assist in maintenance and operation of the equipment found in the Television Unit

Qualifications:

Some background in electrical engineering and/or experience in television technology
Willingness to learn new skills
An interest in media

11. Film Production Unit Coordinator

Responsible for overall administration of a unit to produce films for use in the classroom, in extracurricular activities, and outside the university
Develops goals and objectives for the unit with the advice and direction of the Director for Production and university faculty committees
Develops overall plans for the unit, including the projection of a budget, review and approval of equipment to be purchased, approval of and participation in the selection of unit personnel, review of the organization, operation and objectives of the unit and recommendation of staff positions
Prepares reports on the operation of the unit
Participates in the planning and design of the
materials produced
Arranges for classroom use of materials produced
Arranges for showing of materials to the university
at large
Explores additional ways to make use of films in
classroom and in extra-curricular activities

Qualifications:

Extensive knowledge of film making, including cinemato-
tography, editing, equipment and other aspects
Administrative experience

12. Film Production Assistants, Cinematographers

Responsible for production of films, film editing,
and for the equipment needed for application of
various film technologies

Qualifications:

Experience in film making and film techniques.
Some course work in film production

13. Sound Production Unit Coordinator

Responsible for overall administration of a unit to
produce sound recordings (for either classroom use,
or use in extra-curricular activities), slide, slide
and sound presentations, for use in television production
radio programs and other recordings of school events)
Develops goals and objectives for the unit with the advice
and direction of the Director for Production and the
advice of university faculty committees
Develops overall plans for the unit, including development
of a budget, approval of equipment to be purchased,
selection of unit personnel, review of the organization,
operation and objectives of the unit, and the
recommendation of staff positions
Prepares reports on the operation of the unit
Arranges for classroom and extra-curricular use of
recordings produced
Explores additional ways to make use of sound recordings
in the educational process
Qualifications:

Specialized knowledge of sound recording techniques
and sound recording equipment
Appropriate educational background and administrative experience

14. Sound Production Assistant

Responsible for assisting in the administration of the Sound Production Unit
Aids in planning and production of sound programs
Makes recordings when requested
Operates equipment
Checks equipment for needed repairs and maintenance
Aids in the selection of equipment and supplies
Aids in the supervision of student help and other employees

Qualifications:

Knowledge of sound recording methods and a knowledge of sound production equipment and its operations

15. Photographic Unit Coordinator

Responsible for overall administration of a unit to produce photographs, slides, enlargements, prints, and other photographic products, for use in the classroom, in extra-curricular activities, and outside the university
Develops goals and objectives for the unit with the advice and direction of the Director for Production and the advice of university faculty committees
Develops overall plans for the unit, including the projection of a budget, review and approval of equipment to be purchased, approval and participation in the selection of unit personnel, review of the organization, operation and objectives of the unit, and the recommendation of staff positions
Prepares reports outlining the operation of the unit
Participates in the planning and design of the materials produced
Arranges for classroom use of materials produced
Arranges for showing of materials to the university at large
Explores additional ways to make use of photographic materials in classroom and extra-curricular activities
Qualifications:

Extensive knowledge of photography, including editing, equipment and other technical aspects
Administrative experience

16. Production Unit Secretaries

Job description and qualifications are the same as (5)

17. Student Assistants for Production Units

Aid the production specialists in the production of materials
Operate equipment, etc. after proper instruction

Qualifications:

Some knowledge of the technical areas in which the student would be working
Interest in media and a willingness to learn new skills

18. Assistant for Repair and Maintenance Unit

Responsibilities for checking equipment for needed repairs, checking materials for replacement and repairs, reporting malfunctions to the proper personnel for repair or replacement, and keeping equipment repair records
Trains student assistants in the care and maintenance of equipment
Prepares recommendations for equipment replacement
Prepares annual reports
Supervises personnel

Qualifications:

Interest and work experience in instructional media and equipment
Some media center or library work experience
Supervisory experience and possibly some coursework (up to an Associate Arts degree level)

19. Student Assistants for Repair and Maintenance Unit

Work with the Assistant for Repair and Maintenance in the care, repair and maintenance of equipment

Qualifications:

Some knowledge of the care, operation and repair of equipment
audio-visual equipment
Interest in media and a willingness to learn new skills
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