

CHAPTER 2

COLLECTION DEVELOPMENT AND COLLECTION MANAGEMENT IN ACADEMIC LIBRARIES

2.1 INTRODUCTION

In sections 1.5.2 – 1.5.3 a clear distinction is made between collection development and collection management. This was done to clarify the parameters of each of these concepts. Throughout this thesis, however, the researcher will use the term “collection development” as a blanket term to cover these two processes in academic libraries, as this is the more comprehensive concept. It is only when a clear distinction has to be made that “collection management” will be used.

Any academic library that aims to satisfy the information needs of academics and researchers must take great care with the development and management of its collection. Bonn (1974:265) states:

It is generally agreed that both the quantity and the quality of a library’s collection depend almost entirely upon the library’s acquisition program, including its acquisition policy, its acquisition procedures, and, of most importance, its selection methods.

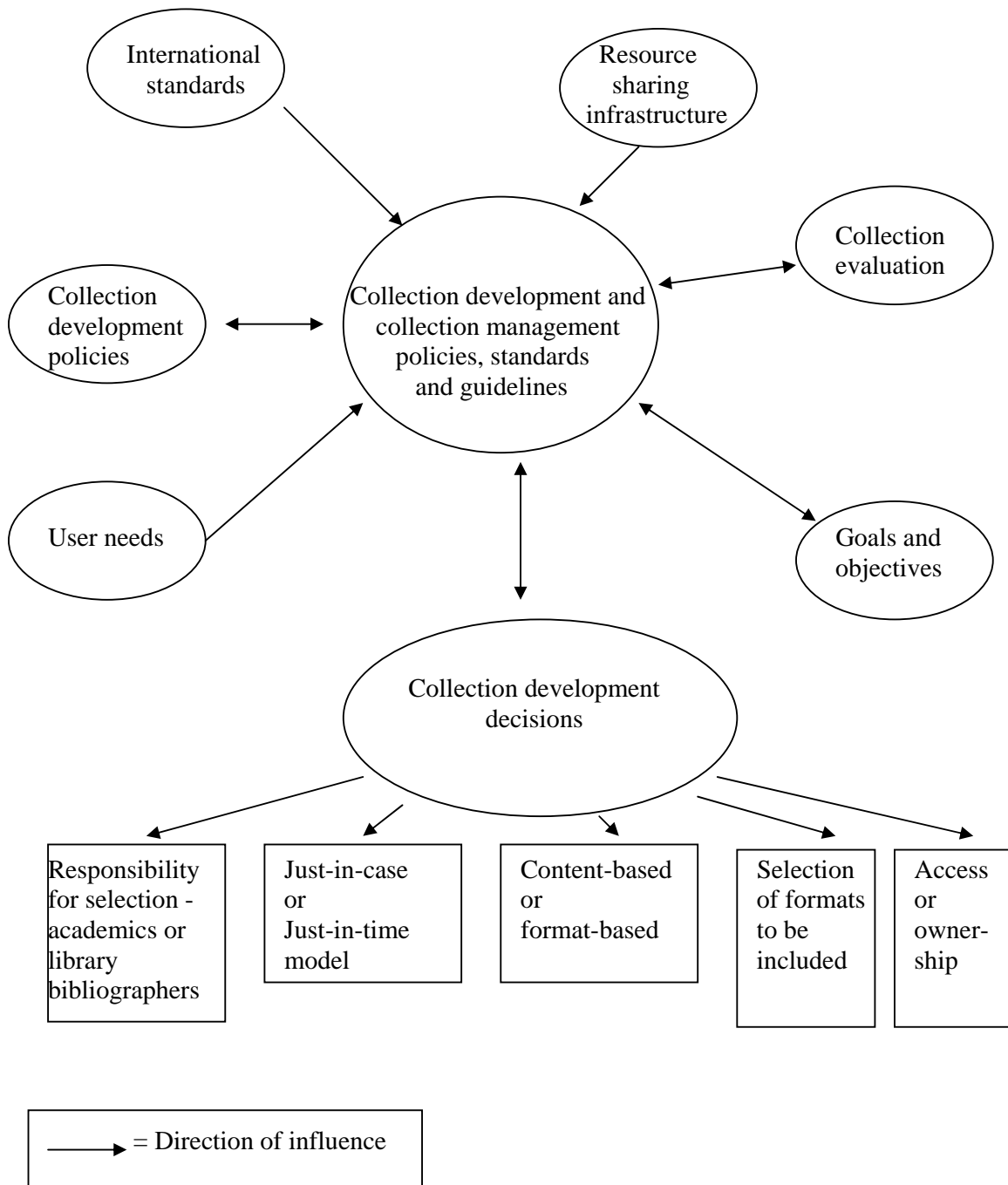
This process cannot be approached in a haphazard manner, but must be carefully planned and constantly evaluated and monitored. This is central to the library fulfilling its mission and objectives, and as such is extremely important. It is also important to develop a collection of a high standard because it has been found that if an institution wishes to attract prestigious academics and researchers, individuals must be assured that they will have support for their research ventures (Miller 1993:327). Much of this support is found in the institution’s library.

Collection development policies, standards and guidelines include community analysis, planning for the building of collections, formulation of collection development policies, selection and the tools used for selection, issues surrounding publishing, intellectual property and censorship, and also weeding and collection evaluation (Blake & Surprenant 2000:901). It is no longer just selection of traditional media that is required. Selectors must currently also deal with such matters as site licences and making decisions between stand-alone CD-ROM workstations and networked CD-ROM subscriptions. They must know how to purchase gateway access to commercial vendors, how to integrate electronic resources into collection development policies and decide whether to buy print or electronic versions of resources. They also have to make decisions about either buying a resource or accessing it through another channel (Blake & Surprenant 2000:908-909).

2.2 FACTORS THAT INFLUENCE COLLECTION DEVELOPMENT POLICIES, STANDARDS AND GUIDELINES

Collection development policies, standards and guidelines do not emanate from a vacuum. Several factors have a bearing on the way in which collections develop and are managed. The selector of library information resources must take many things into account, including institutional objectives and plans, user needs, patterns of use, the scope, strength and weakness of various subject fields in the collection, human and fiscal resources at the library's disposal and cooperative arrangements for sharing of resources (Cooper 1983:23). Figure 2-1 reflects the environment in which collection development and management guidelines, standards and policies are developed. The arrows in the model indicate whether the factors have only a one-way influence (for example, international standards), or whether the influence works both ways (for example, goals and objectives), which are connected by double arrows to the core of the model. International standards for collection development, user needs and the resource sharing infrastructure all influence the collection development and management policies, guidelines and standards adopted in an academic library. Other factors including the collection development policy of each library, the library's goals and objectives and collection evaluation are influenced by the collection development guidelines and standards whilst at the same time having an influence on such policies, guidelines and standards. There are also several pivotal decisions to be made which both influence and

Figure 2-1: A model for collection development and management in academic libraries



are influenced by the collection development policies, standards and guidelines adopted by each institution. Decisions made in these areas (indicated in the rectangular boxes in the model) determine largely the way in which the collection is developed. Decisions must be made about who is responsible for developing the collection, whether a just-in-time or a just-in-case model will be followed, which formats will be included, whether the collection will be format- or content-based and to what extent ownership of items will be necessary.

2.2.1 Goals of collection development and management

Collection development and management, as two important programmes of any academic library, must be driven by goals and objectives. Rowley and Black (1996:25) believe that the aim of collection development is to carry out a library's mission to create a repository or gateway to information for scholars today and to capture the intellectual heritage of the prevailing culture in order to benefit future learners and thinkers. These concepts of creating a repository and a gateway to information are indeed important to the process of collection development and management.

When it comes to collection management in particular, one could say that the goal is to add value to specific information sources so that they can be used more effectively to meet user needs (Atkinson 1998:8). In this regard, collection management differs significantly from collection development. In the case of the former, the motive is to make the collected information sources more useful and accessible to users.

It is also important that collection development be related to the needs of the parent institution (Bordeianu & Carter 1996:42). Bibliographers must thus find out about any important developments and changes in each discipline and programme and adjust its collection development priorities accordingly (Fourie 2001:21; Grossman 2000:120). A library should continuously review its assumptions about each programme offered at the institution (Haas 2000:70). No university will continuously offer exactly the same courses and programmes because the universe of knowledge is in a constant state of flux. A relevant collection must even anticipate future changes as the body of knowledge in disciplines alters.

To be concise, the purpose of collection management policies, standards and guidelines is to ensure that all registered users have access to the right information sources at the right time (Leonard 1994a:151).

2.2.2 Determining user needs

Building collections which fail to satisfy the information needs of users would be a futile exercise. It is thus essential to ascertain such needs continuously and to anticipate future user needs. Jagannathan (1989:286) states that user analysis is the first step to collection development. Evans (1992:16) extends this premise to state that it is not only the stated needs that are important, but it is important to investigate the normative needs as well, especially in a culturally diverse group, as is the case in South African universities of technology. These needs must then be weighed up against an understanding of what would be realistic expectations for resources to meet these needs.

It is important to remember that library users are interested in a collection at a micro level – not at the macro level which is the bibliographer's primary interest (Henri 1989:77). The user wants a particular book, article, picture or piece of information and is not interested in the collection as a balanced whole. This is why access must be provided as much as possible to information sources not owned by the library. As users make increasing use of online bibliographic and full-text databases and search the Internet, so they become more sophisticated information users. This is leading to a situation where there is an ever-widening gap between what users know to be available and what is actually owned by the library they use (Allen 1994:8).

For the purposes of developing collection development policies, standards and guidelines, it is necessary to study the primary users of the collection, and to find out if there is information routinely sought on a particular topic by researchers and academics. Then it is necessary to ensure that these topics are adequately covered in the collection. It is not always imperative to carry out user analysis projects and surveys. Much information can also be gleaned by studying syllabi, scholarly sites, departmental websites, curriculum vitae of academics and researchers, current research projects, grant applications (Haas 2000:71-73), research reports and even minutes of academic meetings. It is also valuable to evaluate circulation statistics, interlibrary loans requests, perceptions of patrons and to analyse the size, depth, breadth and growth of the library's collection (Allen 1994:9). There should be constant interaction with academics and

students in order to keep up with new courses and programmes offered (Bordeianu & Carter 1996:42).

2.2.3 Collection development policies

Collection development policies (also known as collection development policy statements) have proven valuable tools for many collection development and management librarians in academic libraries.

Fourie (2001:36) defines a collection development policy (CDP) as “the written statement that provides planning and implementation guidelines for most collection building tasks.”

According to Fourie, a CDP contains three kinds of statements:

- a statement of objectives which has a direct bearing on the institution’s mission and philosophy.
- a statement of principles which must be flexible enough to cover different situations that might arise.
- a statement of implementation including staff procedures to ensure stability in decision making.

The American Library Association (ALA) (1987:15) defines CDPs as “documents which define the scope of a library’s existing collections, plan for the continuing development of resources, identify collection strengths, and outline the relationship between selection philosophy and the institution’s goals, general selection criteria, and intellectual freedom.” Vogel (1996:65) sees them as sets of “directions for the orderly selection, acquisition, and management of the materials [librarians] make available to their patrons.” CDPs are also defined as “guidelines for decisions on the selection and retention of materials in specific subjects, to specific levels of collection depth and breadth.” (Vogel 1996:65).

It can therefore be said that a CDP is a document drawn up by a specific library to provide guidelines whereby the collection is developed and managed to meet the needs of that particular user group. This policy should explain the past, present and future acquisition and collection

management practices of the library for the edification of bibliographers, other library staff, users, sponsors, and anyone else who has an interest in the library in question.

There are several advantages to having a CDP in an academic library. Firstly, a CDP prevents a library from being driven by events and individual enthusiasms and from buying a random, poorly planned set of resources (Breaks 1999:113). It can also help to introduce change into a library without too much resistance as guidelines are clearly set out in such a policy. CDPs are good communication tools both internally and externally. Internally they can be used to indicate to the parent organisation that certain types of material in specific subject fields are being bought as a matter of policy (Fourie 2001:38). A CDP is a valuable means to showing faculty and students why the library contains certain materials and not others as part of a rational consistent, publicly announced plan (Atkinson 1986:141). Externally they can be used as policy documents to communicate with a network or a consortium (Fourie 2001:38). Van Zijl (1998:101) advocates using a CDP as a means of protection. Such a document protects the library and bibliographers by providing them with a firm framework in which to make decisions. Should anyone question decisions, inquirers can be referred to the document to show why decisions were made.

A collection development policy is very valuable as a planning tool for collection development. White and Crawford (1997:55) advocate the use of a CDP, particularly with regard to electronic resources, in order to “guide us in our decisions, to address faculty/student needs and concerns, and to help us plan for future changes.” A policy which gives clear but simple guidelines in the selection of material would clearly be of benefit to bibliographers and would lead to them making more consistent and informed decisions (Van Zijl 1998:101).

There are also problems surrounding the use of CDPs in academic libraries. Snow (1996:192-193) found that evaluation of a collection, which is one of the cornerstones of a CDP, is difficult, expensive and continuous. The policy usually proves to be inflexible and it is unresponsive to change. Snow states that a CDP is theoretical and is an intellectual guide to selection rather than a practical one. If the policy is not constantly revised, it loses any value it might have had.

There is general consensus in what should be included in a CDP. Atkinson (1986:141-142), Budd and Harloe (1997:22), Fourie (2001:39-40), Intner (1996:10), Moskowitz (1984:6) and

Van Zijl (1998:101-103) concur to a large extent that the following should be included in a CDP:

- Mission and goals of the library and of the parent institution
- Purpose of the collection development policy
- Composition of the user community
- Subject-by-subject evaluation of the collection – past, present and future
- What type of access is provided to the collection
- Way in which funds are allocated from the library's budget
- Criteria for the selection of materials (both traditional and digital resources)
- Who has overall responsibility for the CDP
- How the library deals with gifts
- Censorship, copyright and intellectual freedom issues
- Weeding policy
- Evaluation of the collection
- How document delivery services and resource sharing facility impact upon collection development
- How decisions are made in the selection of appropriate versions of items, i.e. print, electronic, multimedia or combinations of these
- Implications of collaborative collection development within a consortial environment.

As budgets are diminishing and resources are becoming more expensive all the time, there is a need to exercise increasing control over the selection of library material. Increasingly libraries have to justify their expenses and their need for funds to support their programmes. A well-constructed collection development policy is the ideal tool for this purpose (Van Zijl 1998:106).

2.2.4 International standards for academic libraries

In order to endeavour to ensure that academic libraries meet the information needs of researchers and academics *inter alia*, it is necessary to look at standards which can serve as a guide both for the libraries and for their institutions and funders. Amongst other aspects of information science, these standards give guidance regarding the budgets required and the way

in which collections develop, especially relating to the size of the libraries' traditional and, more recently, digital collections.

The Association of College and Research Libraries' (ACRL) approved standards are important to academic libraries because these are the only standards that are readily available in English-speaking countries and as such they are generally accepted as authoritative. These standards must be reviewed continuously to reflect advancements in library technology, networking, resource sharing and developing formats. The ACRL standards are intended to apply to libraries supporting academic programmes at the bachelor's and master's levels, also those offering a "small number of doctoral degrees" (Morris 1986:190). As such, these standards can be applied to collections in the new University of Technology libraries in South Africa.

2.2.4.1 Standards for collection development budgets

Academic and research libraries have had difficulty keeping up with user and institutional expectations and demands in the past few decades. In the first place, they are striving to continue to do what they did in the past and even to do more with no additional resources and support (Rowley & Black 1996:27). Amongst the greatest problems facing these libraries is that collection development programmes for published material cannot be brought to fruition due to high inflation, the escalating costs of print journals and books, declining funding from the parent institutions and the vast range of formats needed by users and researchers (Fourie 2001:23-24; Leonard 1994a:147). There is also an increasing demand for material and information, which cannot be met at present levels of funding (Olson 1994:87). Gorman (1994:460) mentions the "cost to libraries of supporting research".

In order to support graduate and research programmes in research libraries, a library must acquire enough materials to meet user needs – sometimes even striving for comprehensiveness in some subjects. The implication of this is that there should be a budget large enough to support this (Leonhardt 1990:12). Although research grants and contracts are valuable sources of revenue to academic institutions, it has been found that very little of this funding is transferred to the library. Ford (1999:44) found that this was a problem because universities that attract increasing incomes from research grants place a heavy burden on their libraries to provide research literature and information. Institutions should acknowledge the library's contribution to the research outputs and allocate some of the research funding to their libraries.

As more emphasis is placed on providing access to information, the scope of collection development budgets has expanded. Modern academic libraries still have to acquire large quantities of print materials as well as having to budget increasingly for document delivery and interlending services, copyright fees, licence agreement and electronic products (Ford 1999:45). In addition, the equipment through which the information can be accessed must be acquired and maintained.

As universities of technology endeavour to develop collections that can support postgraduate academic programmes and research, it is imperative that sufficient funding be provided to accomplish this. In 1990, Leonhardt (1990:14) expressed the view that if a library's budget were less than \$500,000 it would be difficult to support such programmes and satisfy the information needs of academics and doctoral researchers. Taking inflation into account, this minimum amount will have increased considerably. In the study carried out in 1992 (*University libraries and scholarly communication* 1992:xvi) the correlation between libraries and doctoral programmes was confirmed. This study revealed, "one of the closest correlations with other academic trends is with the number of doctorates conferred, for research libraries and doctoral programs tend to grow hand in hand."

ACRL standards have been altered over the years and in the latest standards released in 2000 (ACRL 2000:175-182) no prescribed amount or formula is given for the size of academic library budgets. Instead, libraries are advised to compare their budget and collections with those of similar institutions. In 1959, the ACRL standard recommended that libraries receive at least five percent of the total institutional budget (ACRL 1959:275). In the 1986 ACRL standard, however, the following recommendation is made: "The library's appropriation shall be six percent of the total institutional budget for educational and general purposes." (Morris 1986:192). A further recommendation is that this percentage be even higher if the library is trying to overcome past deficiencies or to meet the needs of new academic programmes (Morris 1986:199). As universities of technology fall into both categories, one can deduce that these libraries should receive more than six percent of the institutional budget. The ACRL standards also recognise that once a collection has reached the size required, its usefulness soon diminishes if new materials are not acquired at an annual gross growth rate of two to five percent (Morris 1986:191). It can be said that a hallmark of complacency is a dated collection. It is essential to provide accurate and up-to-date information to patrons (Bordeianu & Carter

1996:45). Again special provisions are made for libraries whose collections are significantly below the recommended size in the 1986 standard. In such cases, it is recommended that a five percent growth rate be maintained until they can claim to have reached the higher level.

The 2000 standard (ACRL 2000) is based more on outputs and outcomes, and not so much on inputs such as financial support, materials and space. Outputs measure the work done (for example, the number of books circulated or queries answered) and outcomes measure the ways in which library users are changed through their contact with the resources and programmes. Instead of prescribing how big the library's budget should be relative to the total institutional budget, this standard recommends that, within budgetary constraints, the library must provide "quality resources in the most efficient manner possible" (ACRL 2000:179). It is further recommended that the budget should meet the reasonable expectations of library users when these are balanced against other institutional needs (ACRL 2000:182). Although the latest standard is not prescriptive, academic libraries could still consider previous recommendation of libraries receiving six percent of the total institutional budget as a rule of thumb until this recommendation is specifically revoked.

2.2.4.2 Standards for collection size

It is impossible to evaluate just the size of collections, without considering the quality as well. Obviously a large collection of inappropriate material would be of little use to library users – emphasis should be on the wise selection of material instead of how much material is included. Bonn (1974:268) believes, however, that there is a firm relationship between the size of a collection and its ability to meet user needs. This relationship is even more clearly defined when the collection has been thoughtfully selected by competent librarians. Gore (1981:2187), on the other hand, states that library size and rate of growth cannot be correlated with quality of service to users. Generally speaking, a collection must meet a certain minimum requirement to be able to meet the needs of researchers and academics. These users need easy and immediate access to a broad range of sources in their fields. Horacek (1993:276) found that it is common to equate a research library with a big library. He believes that a small library cannot be considered a research library. Kao and Lin (2001:18) share the view that libraries cannot function effectively if their collections fall below a certain level. They state that there is evidence that the size of collection is related to the perceived quality of the academic institutions.

A collection cannot be expected to maintain a steady level of growth consistently. The age of a library correlates inversely with the rate of growth as younger libraries grow faster than older ones because their collections need to be built up. As the library reaches a certain level of maturity, the growth in the number of volumes added will slow down (*University libraries and scholarly communication* 1992:19). Small libraries will expand more rapidly than larger ones as well (*University libraries and scholarly communication* 1992:21).

One author states that an aggregation of the various existing national and international standards tends to suggest an average of 100 books and half a journal title per reader (Ifidon 1997:253). Although this view is not generally accepted, it is a measure of what kind of collection some researchers expect of an academic or research library.

In a survey carried out amongst academic libraries in South Carolina, 43% of the libraries have monographic collections of under 50,000 volumes, 43% have between 50,000 and 250,000 volumes and the remaining libraries 14% held between 250,000 and 750,000 volumes. When it comes to journal subscriptions, 46% receive fewer than 500 serial titles each, 37% receive between 500 and 1,500 titles and 11% between 1,500 and 5,000 titles. As far as audiovisual material is concerned, 50% own fewer than 1,500 audiovisual items, 33% between 1,500 and 5,000 items and 24% more than 5000 items (Tuten & Washington 1994:84-85).

The 1959 ACRL standard calls for a basic collection of 85,000 volumes plus specified numbers of volumes for the number of full-time students, faculty members, graduate programmes and undergraduate major and minor fields (Moskowitz 1984:8). This standard also suggests that 50,000 carefully chosen volumes may serve as a minimum collection size for a college library for up to 600 full-time equivalent (FTE) students, and that for each 200 students above the first 600, one should add another 10,000 volumes (ACRL 1959:278). In the Standards for Junior College Libraries, the Association of College and Research Libraries insists on quality, and require that an institution of up to 1000 students have a minimum of 20,000 volumes excluding duplicates and textbooks, and that this be increased by 5000 for each additional 500 students (Clapp & Jordan 1965:372). The minimum size depends on the student body, the faculty, the curriculum, methods of instruction, availability of suitable places to study on campus and the intellectual climate. Over the years, ACRL standards have been altered to reflect changes in library funding, availability of information through other channels and changing user expectations.

In the 1995 ACRL standard for collections for college libraries, the following formula is suggested for the number of volumes required (Kao & Lin 2001:21):

$$\text{Volumes} = 85000 + 100 \times \text{faculty} + 15 \times \text{students} + 350 \times \text{undergraduate-fields} + 6000 \times \text{Master's-fields} + 6000 \times \text{Specialist-fields} + 25000 \times \text{Doctoral-fields}.$$

In a study of 24 Taiwanese university libraries, it was found that the ACRL standard for collection size is too stringent (Kao & Lin 2001:21). Very few of the libraries in Taiwan could boast the kinds of collections required in the standard. South Africa, as a developing country, is also unlikely to be able to meet the requirements of ACRL standards. The USA libraries appear to be more able to meet the standard. In a study conducted there, 66% of the academic libraries have Grade A collections (i.e. they have 90-100% of the holdings required by the formula (Walch 1993:221). On the basis of their study, Kao and Lin (2001:18) deduce that, as countries have different education systems, cultures and economic circumstances, a single formula might not be suitable for university libraries worldwide. It is, however, useful to have the ACRL standard to measure a library against and to ascertain how close to the standard one's library comes.

The latest standard published in 2000 is based more on outcomes and outputs and encourages libraries to measure their collections against those of similar libraries. In order to compare collections library administrators must select their own peer group to compare their libraries against (ACRL 2000:176-179). These libraries must share the institution's mission, reputation, selection criteria, expenditure for library support and size of collections. One may compare the ratio of volumes to total student and faculty FTE numbers, the ratio of volumes added per year to combined total student and faculty FTE, the ratio of material-information resource expenditures to combined total student and faculty FTE and the percentage of total library budget spent on materials and information resources (subdivided by print, microform and electronic). As far as resources are concerned "the library should provide varied, authoritative, and up-to-date resources that support its mission and the needs of its users." Resources may be in a variety of formats. Within budgetary constraints, the library should provide quality resources as efficiently as possible.

Although the ACRL has moved away from prescribing how large collections must be, they clearly expect academic libraries to supply library material in sufficient numbers to support the aims of the library and to meet the information needs of all library users, from undergraduate students to doctoral students and academics. In order to do this, institutions are expected to provide sufficient funds for this purpose.

2.2.5 Resource sharing

As academic libraries find it increasingly difficult to include all relevant published and digitally available material required to meet the needs of their users, so partnerships are being formed between libraries and other providers of information. Consortia are the order of the day amongst South African academic libraries, and a vital part of all consortial agreements is setting in place mechanisms whereby resources may be shared as efficiently and swiftly as possible.

Kennedy (1996:107) states that resource sharing could be geographically based, peer-based, consortial-driven, selective, open, formal or informal. All are valid means of sharing information resources.

2.2.5.1 Collaborative collection development

One mechanism that is slowly coming into use is so-called collaborative collection development (CCD). This practice is manifested in several different ways and all serve to ensure that users of all participating libraries have easy access to a collection which is much larger than just that of a single academic library. The term “collaborative” implies that participating libraries enter into an agreement with one another regarding collection development. Generally speaking, this means that each library agrees to concentrate their collection development activities to specified subject fields. This is done because whilst each library cannot strive for comprehensiveness in all subject fields due to financial limitations, it can do so for selected fields which are of particular interest to the institution concerned.

As it is possible to search most other libraries’ catalogues online, it is possible to check whether other members of the consortium do not hold expensive items before placing an order. If it is unlikely that the item will be used extensively and it is certain that the item will be readily

accessible within the consortium, it could be more prudent to borrow the item, rather than purchase it (Gold 2000:74).

Gray (1994:195) states that CCD involves a proactive agreement between libraries over the major collection development functions. Participating libraries must be willing to act within the confines of the agreement and so help to build up a more comprehensive collection across all the member libraries than they would have been capable of doing on their own. Each institution, however, has different collection development objectives, which means that no member is likely to use scarce resources to buy material that does not support its own mission. They are also unlikely to collect material that is not expected to circulate (Wood 1996:438), except in those subject areas in which it is striving for a research or comprehensive level of collection.

CCD goes further than just print media. It should also include CD-ROM, tape-loaded and other electronic media acquired or licensed by libraries or even subscriptions to remote databases accessed through the Internet or dial-up connections (Wood 1997:224). By coordinating such access to electronic media, funds can be used more carefully and it can be assured that access to all relevant electronic media will be possible at a library belonging to the group.

2.2.5.2 *Academic library consortia*

A valuable network that is helping academic libraries use their scarce resources more effectively is the library consortium (Haas 2000:74). These consortia are formed when a group of libraries sharing the same basic set of objectives, user groups and usually geographical area, enter into agreements to share their resources in an organised fashion. In South Africa, consortia are limited to academic libraries. Fourie (2001:101) found that the central assumption in consortial agreements is that each library will provide materials that are used extensively and regularly in the course of academic activities and keep these in their own collections. Materials used by only a few scholars can then be provided through cooperative agreements with consortium members.

These agreements should also cover acquisitions of electronic resources (Liestman 2001:90). Many database vendors and aggregating services are willing to offer special consortial rates for their products, making them more affordable for academic libraries. The combined bargaining power of the consortium is much greater than that of a single institution.

Although library consortia amongst academic libraries in South Africa started only in the 1990s, there are currently consortia covering each geographical area in which academic libraries occur and most academic libraries belong to one.

In a survey of academic libraries in South Carolina carried out in 1994, only a third of the libraries participate in a cooperative collecting programme, but 68% of the librarians thought this would be a valuable programme for their patrons (Tuten & Washington 1994:85).

One of the most beneficial parts of consortial agreements is that access to journals has increased dramatically. Consortium member libraries can develop a common collection development policy (CDP) for the development of journal collections in addition to their own personal CDP. When journal prices rose sharply in the mid-1980s, the University of California libraries pursued the possibility of collaborative collection management. Their goal was to assure that at least one copy of each science and engineering translation journal essential to their programmes were held somewhere in the University of California or at Stanford University within five years (Hightower & Soete 1995:88). The tremendous malaise surrounding the rapidly escalating costs of journal subscriptions is forcing many research libraries in the United States to develop models of interdependence (Hightower & Soete 1995:94). These factors are also a concern for South African academic libraries.

It must be mentioned that a major limitation to the success of consortial agreements is “turf protectionism” (Wood 1997:228). This is a desire in each participating library to be self-sufficient. Their acceptance of terms of agreements means that they lose some measure of autonomy as well as a part of their own collections as these have to be shared to a larger extent than before.

2.2.5.3 Interlending of library material

As it becomes increasingly difficult to maintain even just a core collection in libraries, so resource sharing becomes an increasingly large aspect of collection development of print media. Research libraries can no longer be self-sufficient and the development of in-depth collections in every area of active research is not realistic; they have to rely increasingly on resource sharing to meet user needs (Coutts 1998:282; Howard 1988:206). Rowley and Black (1996:28) found that many libraries are moving the interlending units and document delivery services into their

acquisitions and serials departments. This has been done in order to ensure that some degree of continuity and order exists between the acquisitions and borrowing of library material.

In the 1986 ACRL standard it is stated that “the quality of the collections shall be enhanced through the use of interlibrary loan and other cooperative agreements” and that “cooperative programs, other than traditional interlibrary loan, shall be encouraged” (Morris 1986:196). With the developments in telecommunications and electronic resources, resource sharing has been rendered much easier and quicker. Libraries can now get electronic access to required items (Coutts 1998:285). This is facilitated through the development of new standards for linking systems and for facilitating document delivery (Rowley & Black 1996:27).

2.2.6 Collection evaluation

Collection evaluation is important to collection development and collection management because it is impossible to build a balanced, relevant collection of material unless the strengths and weaknesses of the current collection are known. Bibliographers need to know the actual and desired levels of their collections in order to plan meaningfully.

Several methods have been devised for this. Clapp and Jordan (1965:380) believe that the best way to measure the adequacy of a collection is to study book selection lists and specialised subject bibliographies. Bonn (1974:266-283) believes that it is possible to evaluate a collection quantitatively through the numerical size of the collection, or qualitatively by examining the worth or value of the collection. Statistics he considers important for the evaluation of collections include size, volumes added per year, formulae, comparisons either within a library at different times or between libraries, subject balance, unfilled requests, ILL requests, optimum size (size needed to satisfy x% of requests by clients), circulation statistics and annual expenditure. He also recommends the use of catalogues of important libraries, specialised bibliographies and basic subject lists, current lists (prize winners, books of selected publishers, etc.), reference works (those listed in standard guides to reference materials), periodicals, authorised lists, citations, ad hoc lists and opinions of users and librarians. These are all still valid tools for examining the state of a collection.

More recently, however, academic libraries have been making increasing use of the conspectus method of evaluating library collections. Fourie (2001:41) defines a conspectus as:

... a standardised procedure for reporting the present state of a collection, and the present and the future levels of collections through the use of a uniform coding system, such as the Research Libraries Group (RLG) code.

This definition is confirmed by Howard (1988:207), who says that the conspectus enables libraries to record collecting practices by subject terms in a standardised, quantified form. The word “conspectus” means an overview or survey of a library’s collection (Wood 1996:430). It is a formalised way of reporting the current state of the collection as well as a plan for future development of the collection by using a specific coding system. Several such systems exist and each has the same basic format. Apart from the RLG conspectus (which was originally conceived as a tool to assist in CCD projects, facilitating regional and specialised national planning for collaborative collection development) (Gray 1994:195), there is also the Pacific North West conspectus designed for areas in which there are fewer and smaller research libraries (Gray 1994:194) as well as the Washington Library Network (WLN) version which may also take the form of a Conspectus Database Software programme (Pinnell-Stephens 1994:59).

The RLG Conspectus, which is widely used amongst academic libraries, will be described briefly as an example of a conspectus. Using this method, libraries must evaluate collections subject by subject in terms of present strength of collection, collection intensity and the desired levels of subject collections. This is done on worksheets. Existing collection strength (ECS) compares a local library’s collection with what is available worldwide. Current collecting intensity (CCI) codifies a library’s collecting activities or growth rate. This is determined by examining the library’s budget, fund allocations, purchase orders and subscriptions for each subject area on the worksheets. Lastly, the Desired Collection Intensity (DCI) is determined on the worksheets (Wood 1996:434).

Descriptive levels are (Wood 1996:435):

- 0 - Out of scope: no material is selected in this area.
- 1 - Minimal level: few materials are selected in this area beyond basic titles.
- 2 - Basic information level: current, general, introductory books, basic reference works, and a few major periodical titles are selected.

- 3 - Instructional support level: a wide range of monographs, collections of works by more important writers, selections of secondary writers, representative journals, reference tools, and electronic access to appropriate bibliographic databases are provided to maintain knowledge of a subject to support all undergraduate, most graduate, and independent study needs of students.
- 4 - Research level: source materials, dissertations, specialised monographs, abstracts, indexes, and foreign language materials are provided and retained for historical or original research at doctoral level.
- 5 - Comprehensive level: all significant works of recorded knowledge in all applicable languages are obtained in an effort to be exhaustive.

Additional subcodes of 1, 2, and 3 collection levels are required for smaller, non-research libraries to distinguish the differences between collections. WLN gives definitions of 1a, 1b, 2a, 2b and 3a-c (Wood 1996:435-436):

- 1a - Minimal level: uneven coverage: few, unsystematic selections.
- 1b - Minimal level: even coverage: core titles, works by basic and classic authors, and a wide array of representative titles are selected to support fundamental inquiries.
- 2a - Basic information level: introductory: resources like textbooks and basic reference books that familiarize, clarify and define the subject are acquired.
- 2b - Basic information level: advanced: a wider range of resources is acquired or accessed to support basic information and recreational reading needs of a highly educated constituency.
- 3a - Instructional support level: basic study: the most important primary and secondary books, journals, and reference materials are acquired to support lower division undergraduate and some basic independent study needs of students or lifelong learners.
- 3b - Instruction support level: intermediate study: a broader range of books, journals, seminal works, databases, and reference tools is acquired to support upper division undergraduate course work.
- 3c - Instructional support level: advanced study: specialised research, professional, and master's degree needs are met by acquiring seminal and in-depth works, journals on the primary and secondary topics in the fields and retrospective materials.

In the RLG conspectus, all 4 and 5 level collections support undergraduate and graduate instruction and doctoral research (Wood 1996:435).

Conspectus as it stands has proven inadequate in the evaluation of libraries' collections of digital media because it is collection-centred rather than resources access-centred. Clayton and Gorman (2002:253) believe that it needs to be updated to take into account the availability of digital data.

Conspectus has been used effectively in several countries outside the United States, where it was conceived originally. In Australia, the Queensland University of Technology used the conspectus methodology to help in the internal decision making process to determine which areas were worthy of support for continuing research effort. Funds were provided to carry out conspectus evaluations in those areas supporting the university's major research concentrations (Cochrane & Rickards 1991:148). In Germany, some libraries have been given the responsibility of collecting certain subject fields at the comprehensive level. They were given extra funding for this from the *Deutsche Forschungsgemeinschaft* (Voorbij 1996:191).

2.3 DECISIONS REGARDING COLLECTION DEVELOPMENT POLICIES, STANDARDS AND GUIDELINES

There are several important decisions collection developers must make related to the development and management of collections in academic libraries.

2.3.1 Responsibility for selection in academic libraries

Collection development is usually the joint responsibility of the library staff and academics in an academic institution. Responsibility should be clearly spelt out in policy statements. Because it could be library managers, subject librarians or people specifically appointed to develop and manage collections, the term "bibliographer" will be used as a generic term for the person entrusted with the task of developing and managing collections in an academic library.

It is generally accepted that librarians, working in a consultative relationship with academics, are in the best position to build library collections (De Stefano 2001:61; Gordon 2000:688; Jagannathan 1989:289). Bonn (1974:295) claims that today many scholars participate actively

in the building of research collections, but that the library carries the final responsibility for selection. In Australia, most monographic works are selected by academics whilst librarians select most of the reference and interdisciplinary material (Leonard 1994a:150). The practice of giving academics the final say in selection decisions is discouraged. Researchers concur that it should be the library staff who have the final say in the material purchased, and not the academics. This is because library bibliographers are concerned with judicious spending of the materials budget, the control of the budget and with the fact that it would be an abdication of responsibility to turn final selection over to academics (Brantz 2002:266; Strauch 1990:39). It is also believed that allowing faculty to select materials is a mistake because they lack the broad vision necessary to build a collection of enough breadth to meet the needs of the academic community (Gordon 2000:687). Librarians are more likely to see that the collection is balanced and of a high quality and they can identify gaps in the collection overlooked by academics (Liestman 2001:89).

Leonhardt (1990:12), however, maintains that in smaller libraries traditionally selection is carried out by faculty and even when this is the responsibility of bibliographers, they do the selection in close cooperation with faculty members who take an active interest in library collections. Although the new universities of technology in South Africa are what can be classified as smaller libraries, the success of their endeavours to be considered university libraries necessitates their striving to meet the standards of other university libraries. As such, they should adhere to the selection principles of established university libraries. Generally speaking, they should allow library bibliographers to make decisions about selection in consultation with interested academics.

Increasingly, library users are becoming involved in the selection of library materials. This has occurred because in the new online environment, users' expectations of what can and should be included in their libraries have been stimulated. They (especially researchers) know what is available in their field of study and are increasingly reappropriating the role of selector of library materials (Atkinson 1998:10).

2.3.2 Just-in-case model for collection development

Historically, bibliographers in academic libraries have developed collections with the view to meeting the needs of undergraduate students in their own collections as well as to cover in depth

those fields in which research is or may be carried out at their institution. This means that, should a researcher require information in a particular subject area, there was a good chance that he would find some material locally to begin a literature search. This was particularly the case in the 1960s and 1970s when academic institutions provided bountiful funding for collection building. Collections developed in this way display various degrees of depth and breadth in subject areas in which research is important. Some collections would even strive for comprehensiveness in some designated areas. This means that an effort was made to collect all scholarly material published in those subjects. Because such collections were developed to meet possible information needs they could be classified as preventive – i.e. the collection was there even before the need was experienced. These “just-in-case” collections are valuable repositories of research material, but are very costly to build up and to maintain.

In a North American study (*University libraries and scholarly communication* 1992:107) it was found that many library users consider interlibrary loans (ILL) to be inefficient. They prefer their own libraries to possess required information sources. This has led to bibliographers striving to make their collections as comprehensive as possible so that their collections could be self-sufficient. This is essentially the just-in-case model of collection development. It was found in the afore-mentioned study that this model of acquiring material in anticipation of user needs permits serendipitous and potentially interesting discoveries on the part of researchers.

The just-in-case model of collection development allows researchers and scholars to browse through potentially relevant material. They can thus base their research problems and hypotheses on a broad spectrum of other findings, and not limit themselves to searching for information which supports their own *Weltanschauung* and hypotheses only. This viewpoint is supported by Horacek (1993:278). He states that it is good to have many books on a subject because research depends on a knowledge and evaluation of all material on a topic to ascertain the facts and the interpretations drawn from them. Scholars need to access the views of other researchers and establish what is relevant to their work. As it is not always possible to identify the best monographs on a subject, it is necessary to have a wide selection of monographs available for researchers.

Voorbij (1996:201) is a proponent of the just-in-case model of collection development. In his view, research collections serve as reservoirs and are a last resort for unpredictable demands for specialised literature. Voorbij says that librarians must anticipate demands and act proactively.

Although it is inevitable that much of the material in such collections should remain unused, or infrequently used, the materials are vitally important to those who do use them.

The just-in-case model was considered to be the only correct way to develop collections until the latter part of the 20th century. Guidelines and policies regarding the use of this model in a university of technology to develop collections need to be stipulated and clarified.

2.3.3 Just-in-time model for collection development

Increasingly, bibliographers are moving away from the just-in-case model because of changes in the information infrastructure. Library materials budgets have been reduced for the past few decades, scholarly communication has changed dramatically and the range of possible formats in which information is made available is changing rapidly in the new digital environment.

A major drawback in adhering to the just-in-case model is that a large proportion of the library's collection is never circulated. This was found to be the case in the so-called Pitt Study carried out in the University of Pittsburgh library and several others (Miller 1990:17). Miller reports that in the Pitt Study itself, a large number of books never circulated from the stacks. In a number of other smaller libraries, it was found that about 40% of the books met 80% of user needs and in larger research libraries, only 20% of the collection met 80% of information needs. In a study at the Hillman Library, circulation statistics revealed that 40% of the books in the collection had never circulated during their first six years on the shelf and that any given book purchased had only slightly more than a 50% chance of ever circulating (Moskowitz 1984:6). Intner (1996:10) also found that studies show that unacceptably large proportions of library material go unused by the people they are supposed to serve. These statistics would suggest that a large amount of money is spent every year on material that was considered potentially useful to the users by selectors of library material, but that was in fact never considered valuable by the users themselves. This is a substantial incentive to pursue the just-in-case model of collection development.

Another decisive reason for moving from the just-in-case model to one in which information is acquired when it is requested or when it is required (i.e. the just-in-time model), is that it is difficult to speculate and project which materials researchers might require (De Stefano 2001:64). This is a subjective exercise which often leads to overbuying of library material.

Technological developments in the digital environment have made it possible to have information delivered very swiftly on request via telecommunication channels (Blake & Surprenant 2000:895). Popular services in this regard are ILL and document delivery services, many of which are driven by commercial enterprises. This has been a big factor in the recent shift from the just-in-case to the just-in-time scenario in collection development. Using the just-in-time model, librarians wait for a request for information, and then ensure that it is delivered to the requester as swiftly as possible.

A concern regarding this shift is that, over the course of time, libraries will cease to be repositories of researcher output and scholarly writings through the ages, and no other body has accepted responsibility for this. The preservation and archiving function of libraries would be lost if the just-in-time model were accepted as the best choice by all academic institutions and research libraries. This would also have considerable implications for scholarly communication, as alternate means of publicising research findings would have to be found.

In addition, original research could be hampered because researchers will no longer be exposed to the broad spectrum of information presented in a just-in-case collection. They will increasingly be limited by their own speculations and to what indexes and electronic resources reveal as possible information sources. Policies in the use of the just-in-time model need to be dealt with.

2.3.4 Content-based versus format-based collections

Some authors also divide collections up into content-based or format-based collections. Using these criteria, bibliographers would make decisions based either on the content of the information sources or on the format in which the information is presented.

Billings (1996:5) states that the greatest challenge in managing collections and interwebbed information is to discover how to merge the information sources to provide the content that satisfies the information seeker by way of textual information, hypertext, raw data or whatever it is that is required. In this view, the format must be that which is best suited to deliver the required information, data or knowledge – thus it is the content that drives the format.

Demas (1998:155) believes that when making selection decisions, it is impossible to ignore the physical format of the information, how it will be used and how access will be given to the information. He separates content from format and gives both equal prominence. Decisions regarding content involve the intellectual importance, authority, uniqueness and timeliness of the information. Those relating to the format include such matters as the fidelity to the original, utility, longevity, security and portability of the information.

As users of academic information are interested in the required information in the most convenient format, it is impossible to allow the format to be the decisive factor in selection of material. Researchers are much more interested in the information than in the way it is packaged. Harloe and Budd (1994:83) say that academic librarians must base their decisions on collection management on the “logic of content”. One must first look at user needs and then decide what content is required to meet the needs. It is only at this stage that the format or packaging can be considered. Harloe and Budd (1994:85) state that the library is a “vehicle for content” rather than a repository for packages.

It must be said that although content is the vital element in decision-making, in the modern information environment it is impossible to ignore the format in which the information should be acquired. Selectors must make format decisions based on the ease of access to the content, speed of delivery of the information and budgetary considerations, because most of the information available online or in digital form is very costly to acquire.

2.3.5 Formats in which information is made available

Traditionally, academic libraries collected mainly print books, journals and indexes as well as acquiring some material on microfiche. Some libraries also collected slides and audio and video recordings.

As telecommunications and digital technology developed, so there was a dramatic shift in the format in which information was offered to library users. First it was journals and indexing services that incorporated digital access to their information in their marketing strategies. These were available on CD-ROM initially, and within a few years, libraries were increasingly offering online access to these information sources. Journal publishers soon offered digital access to their journals either as an add-on to subscriptions to print journals or even as an alternate method

of accessing their journals. Soon these new digital media had changed the paradigm of information provision. Users became increasingly sophisticated in their understanding of the communication of information, scholarly communication adapted to digital technology and libraries had to adapt to the paradigm shift by providing increasing access to these media. It was only a matter of time before book publishers also seized the opportunities offered by the new technology. The electronic book (called the e-book) was born. Although acceptance of the e-book has been somewhat slower and less enthusiastic than that of electronic journals (e-journals), their popularity is growing. Gyeszly (2001:5) believes that the escalating price of the growing number of electronic journals, databases, indexes and books which are now made available alongside the traditional media will soon force library collection managers to make decisions between electronic and print products.

An important part of collection development and management in the new millennium, in addition to the selection and management of traditional print books and journals, is the management of an increasing proportion of information becoming available in digital form and melding these into a single database of information (Billings 1996:4).

2.3.6 Access versus ownership

In the digital era, attention is increasingly drawn to the importance of having access to information as opposed to actually owning the items in which the information resides. Researchers, academics, library users and information professionals such as librarians are asking whether it would not be preferable to provide such access instead of going to the expense of owning the information resources. As long ago as 1990, it was said “the long predicted shift from ownership to access appears to be taking hold” (Lenzini 1990:29).

It is important to take several collection development issues into consideration when deciding between access, ownership or a combination of the two.

2.3.6.1 Ownership

Researchers and academics require quick and easy access to information. If an item requires too much time to access, it is useless to users and any money spent on the maintenance of such items is wasted (Atkinson 1998:14). In the 1986 ACRL standard, it was stated that there is no

substitute for a “strong, immediately accessible collection” (Morris 1986:191). The standard also recommends that a library must “provide as promptly as possible a high percentage of the materials needed by its users”. This ties in with the concept of a core collection of print material. Buckland (1989:216-218) is a firm proponent of ownership of a core research and undergraduate collection in academic libraries. He has found that it requires much less effort to inspect a copy of a text if such a copy is held in the researcher’s local library. Buckland sees library collections as subsets of potentially collectable materials which are collected to achieve the goals of the library by facilitating access to these items to the user population. Required items held in another library can be made available to users only with considerable delay and inconvenience for the user and effort from library staff. Going by this criterion then, libraries must be judged by the size and appropriateness of the collection. Buckland makes a further point in favour of ownership, by stating that users browse the library’s shelves to find material – this would be impossible if the material were not physically available on the shelves. A further advantage of owning an information object is that it is only necessary to purchase the item once and then it remains the property of the library until physically removed from the collection for some reason (Fisher & Leonard 1997:208).

Law (1999:23-24) is concerned about collections becoming fragmented because academics purchase some of their required materials themselves and house these in their offices and departments instead of getting the library to acquire the items and add these to their collection. This means that valuable items relating to those subjects are not available together at a single venue. As libraries have started to set up cooperative acquisition arrangements, users are often expected to travel to other libraries or to rely on photocopies to meet their requirements. This is a disincentive to users and the lack of a strong centralised collection threatens to make research poorer. As libraries follow this approach, scarcely meeting even current user needs, collection building is being eroded and gaps are being created that will damage future research. Law (1999:24) shares a concern expressed by several authors and researchers that should this trend continue, this will mean that in a few years time, all academic and research collections will look alike – resulting in homogeneous collections all including the same material and all excluding the same material (Billings 1996:3; *University libraries and scholarly communication* 1992:76; Voorbij 1996:202). This could result in a nationally and possibly even a globally impoverished information environment from which researchers have to work. Although it is possible for researchers to work without the support of a research collection in their local libraries, this

proves more difficult for them and it requires extensive interlending to supplement the library's resources. Alternately they are sent to other libraries to find their material (Horacek 1993:280).

2.3.6.2 *Access*

As ICT progresses, so methods are being developed to gain access to information without owning it. Libraries have to provide broad access to global information and are becoming less dependent on print collections. A major challenge for academic libraries is to provide easy access to digital information and to the library's print collection (Persons 1998:179). There is a complex interplay between actual holdings on site and providing access to information on demand. Increasingly libraries are becoming "access organisations" linking users to information, wherever it may reside (Rowley & Black 1996:23). Digital data is handled differently to traditional data because it must only be available, it is not owned. The size of digital collections is irrelevant, what is crucial is ease of access (Clayton & Gorman 2002:254).

There are many different ways in which access can be gained to information not held in the library. The most prevalent of these include document delivery and interlending services, agreements between libraries to allow users to use one another's collections, commercially available electronic networks which provide bibliographic, numeric and full-text information and the Internet. Document delivery and interlending services allow libraries to provide access to low-demand material and also to provide such access to other information seekers in reciprocation (Fisher & Leonard 1997:208-209). It must be remembered that in order for these services to work, someone has to own the information resources required.

ILL remains a convenient source for low-use and emerging journal material (Miller 1990:19). Interlending statistics can in turn be used as a collection development tool to identify books and journal titles frequently requested (Haas 2000:74). Problems associated with interlending are that in some circumstances copyright laws prohibit the sharing of information through these services and that access is slow if it cannot be transferred digitally. In the latter case, it is essential that both the lending and the requesting libraries use the same software and equipment before the transferring of data can occur. Some information packages prohibit the transfer of information to other libraries (Fisher & Leonard 1997:209).

Document delivery services are another way of providing access to information. Articles discovered through the Internet can usually be ordered online. These are then either faxed or transmitted electronically to the requesting party. Although delivery is usually quick and the service is convenient, it is also very costly. Many document delivery services are vendor-based and libraries can order items directly from the vendor. In such cases, however, one is restricted to articles from a core list of journals. In order to be able to use these services, there are hardware and software requirements that must be met and often site licences include restrictions about who may use the information (Cornish 1997:164).

Most electronic media are media that are accessed and not owned – with the exception of some CD-ROM databases, which the library might own. These however are not available to users without the use of a computer, and in this sense, they too are accessed media.

Collection management and development of accessed media must include the provision and maintenance of the hardware, software, networking and access procedures needed to give rapid and easy access to the information resources supplied (Coutts 1998:286). Although access might sound like a less expensive option as information is only sought when a need is expressed, access to digital media is very costly. The packaged information available through journal aggregation services is very expensive and as much of the information offered through these services will never be accessed, a great deal of money is wasted in these subscriptions. An advantage of access over ownership, however, is that one need only subscribe to the databases and services as long as there is a need for them. When a library buys material, it cannot simply be replaced with more relevant information once the need for it has passed (Fisher & Leonard 1997:217).

Metadata, or information about information, is vitally important when opting for access to information over ownership. It is essential to provide access to the available electronic information that will be useful to users. Metadata will enable libraries to include electronic media in their local catalogues and so provide seamless access to the library's collection – which is usually a hybrid of owned and accessed information.

2.4 CHANGING TRENDS IN COLLECTION DEVELOPMENT AND MANAGEMENT

As academic libraries and the channels through which information is transmitted continue to change, it is unlikely that libraries will be able to survive in the form they took in the late 20th century. Several authors have predicted future trends in these institutions.

It is likely that collections of print media will deteriorate in future. In the United Kingdom, for example, university expenditure has not kept pace with the growing demands placed on libraries. These demands come from larger student numbers, the growth in the number of academic books and journals published annually and the escalating costs for information technology and electronic services (Erens 1996:127). As library users are increasingly exposed to the vast amount of information available electronically, their demands on academic libraries will increase. Collection development and management will become more user-driven, dependent on available technology and the information marketplace (Rowley & Black 1996:29). Also arising from the easy access to information via the Internet, in particular, it is predicted that in future, libraries will cease to be the major source of information for researchers and academics (Davis 1996:73).

As the role of the library is forced to change, academic libraries will become increasingly involved in the organisation of information. The vast warehouse of print and digital information is unwieldy and Billings (1996:7) believes that information seekers will continue to require the services of librarians to achieve success in their efforts to find relevant information.

Fisher and Leonard (1997:214) predict that document delivery will replace most journal subscriptions, particularly in science and technology. This would lead to a shift in allocation of funds from a materials budget for print media to document supply and also electronic resources. As this shift occurs, it is likely that staffing will also change in academic libraries. It is likely that technical service departments in particular, including acquisitions and serials management, will be reduced in staff numbers (Fisher & Leonard 1997:214).

As the amount of the budget allocated to books and journals declines, print collections could eventually be reduced to core collections supporting undergraduate coursework. Researchers and postgraduate students will find their information needs met from remote sources. If this

were to occur, academic library collections will become increasingly similar. The trend of buying fewer books has been evident for some time now. It was found that the increase in publishing output by American university presses was not a function of the recovery in the purchasing power of university libraries because the average number of volumes added to collections has declined since 1970 (*University libraries and scholarly communication* 1992:70). The number of volumes added annually within a group of 24 libraries decreased between 1970 and 1982 at an annual rate of 1,4% while the number of titles published, domestically and internationally, was increasing at a rate of more than 2% per year and continued to expand after that (*University libraries and scholarly communication* 1992:75).

2.5 CONCLUSION

Collection development and management in academic libraries is a complex and important part of providing an infrastructure in which academics and researchers can acquire the information they need. This requires the formulation of clear goals and policies which must be in keeping with the goals and mission of the library and institution as a whole. The ultimate responsibility for collection development rests with library bibliographers who are assisted in their decision-making by academics.

The two major collection development models of just-in-case and just-in-time strategies each have merit and libraries need to make decisions about which is more suitable in their circumstances. Other issues that require decision-making relate to the formats in which information will be provided and to what extent traditional and digital media will be mingled in what is likely to be a hybrid collection for some decades to come. Issues of access to, or ownership of, information must also be resolved if adequate planning is to be done to build relevant and valuable collections. Possibly a combination of the two will have to be adopted.

Although there is no single definitive standard relating to collection size or materials budgets for academic libraries, the ACRL standards over the years can serve as general guidelines against which to evaluate research collections. Another commonly used method of evaluating collections is the conspectus method. In order to plan meaningfully for the future of collections, it is important to know the current state of the collection as well as what the desired level of strength is.

Trends in collection development and management are changing. This is mainly due to the changing formats in which information is presented, changes in scholarly communication, increases in the prices of serials and books and diminishing funding provided for the acquisitions of information resources in libraries. Bibliographers have to adapt to these changes as well as to more sophisticated user needs, because these needs are a determining element for collection development policies, guidelines and standards (see figure 2-1). Collections have to become seamless mergers between traditional and digital media. This poses many challenges and opportunities for academic libraries, and has to be considered in the libraries of fledgling universities of technology. Policies, standards and guidelines have to be in place to provide direction for collection development.

In the next chapter, the academic will be examined as a scholar, as a lecturer in his teaching capacity and as a researcher. The academic both creates and uses information in the course of his work and research. Before his information needs and behaviour can be examined, it is necessary to give a clear profile of academics, covering all facets of his work involving information.