CHAPTER 7

COLLECTION DEVELOPMENT AND MANAGEMENT AT TWO UNIVERSITIES OF TECHNOLOGY – REPORT OF CASE STUDIES

7.1   INTRODUCTION

In chapter 6, current trends in collection development were discussed with reference to the various formats in which information is presented in the 21st century. It was found that monographic material is still being published at the same rate as in the past, but that overall the sale of books has dropped. It is, however, still essential to have a core collection of important monographs in an academic library for teaching and research purposes. The number of serials in publication has increased but due to the rising cost of subscriptions, libraries are subscribing to fewer titles. Academic libraries continue to subscribe to all the important titles in print format, taking care to avoid too much duplication with those available through aggregated journal databases.

Digital media are becoming more popular in academic libraries. Although CD-ROMs are losing popularity in the new online environment, they still have a place in academic libraries. E-journals are the single most popular format in the range of digital information media and are mostly accessed through full-text datasets. An emerging format in the digital arena is the e-book which is not yet fully accepted as a valuable format for information, but it is gaining in popularity.

In this chapter, actual collection development practices at two universities of technology: one in New Zealand and one in South Africa, are examined to evaluate how effectively these libraries are dealing with developing and managing library collections to meet the new, more advanced needs of their researchers and academics since becoming universities of technology.

7.1.1   Data collection methods used

The library directors at the Auckland University of Technology (AUT) and a new
university of Technology in South Africa [called the X University of Technology
(XUT) in this thesis][1] were contacted to solicit permission to conduct case studies of
their collection development and collection management practices as well about their
institutions in general. The director of the AUT library gave her permission to carry
out the study and it was decided that their informant would be the Associate
University Librarian (Information Resources), Ms H Jenks. Unlimited access to
documentation was given as well as an undertaking to answer any questions the
researcher posed. Annual reports for the period 1996 – 2003 (the report for 1995 was
not available) were sent to the researcher. In addition the informant offered to
provide any additional information via email. In some instances, triangulation of data
was carried out to ensure the validity of the data. In such cases the facts contained in
the annual reports were verified with the informant or checked against information
contained on the library's website. After the case study had been completed, the
report was sent to the informant so that the facts could be verified. This was an
additional method used to ensure the veracity of the findings.

XUT in South Africa was less transparent. In the first place, the researcher was
requested to sign a document promising not to mention the university of technology
by name and it was explained that only certain information would be given. Some
information would be withheld if it were deemed that the information was too
sensitive. In order to obtain data, the researcher had to compile a list of questions and
was told that no additional information would be given. Although this means that the
information about the South African university of technology is not as broad and
complete as that given by AUT, the information relating to XUT was sufficient to
make a comparison between the collection development and management practices in
the two institutions. The informant at XUT has chosen to remain anonymous and
therefore will not be named. She is a senior member of staff in that library, who shall
be referred to as Q. The information given was validated by crosschecking the
information wherever possible by comparing the information given with information

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[1] XUT wishes to remain anonymous.

published on the library's website. Access to annual reports was denied which hampered efforts to triangulate the data collection methods further. On completion of the case study of this institution, the facts were verified by sending a copy of the report to the director of the library concerned as well as to the Dean of Research. Efforts were made to gain additional information and to broaden certain aspects of the case study. These efforts met with only limited success.

7.1.2   Role of the researcher

The researcher took on the role of an impartial observer of the policies and practices followed at the universities of technology. An attempt was made to build up a rapport and to become a trusted confidante to both informants. An undertaking was given (and maintained) to adhere to ethical practices in the reporting of the studies undertaken. As the researcher works at neither of the universities of technology subjected to scrutiny in this case study, it was possible to study the collection development policies, standards and practices dispassionately and to report the findings from the point of view of an interested and informed observer who has nothing to gain or lose from reporting honestly and thoroughly on all relevant aspects of the case studies.

Having worked at a South African technikon library for 12 years, the researcher has a knowledge of policies, standards and practices followed in that Technikon from shortly after it became a technikon until just prior to its upgrading to a university of technology. The technikon concerned had already been granted the right to confer degrees up to doctoral level and was involved in scholarly research. This exposure to collection development and management at a technikon gives the researcher a framework against which to investigate the practices, standards and policies particular to the two universities of technology involved in this case study.

Although every effort was made to give an unbiased interpretation of the data, the exposure to how a South African technikon collected and managed collections at the turn of this century colours the world view of the researcher. Similarly, her lack of first hand exposure to New Zealand universities of technology means that the researcher relies solely on documentation, written and verbal data to formulate an

understanding of the practices at Auckland University of Technology. These might be biased in favour of the institution but the researcher must accept that the informant and the documentation reflect the position there accurately. The factual data is reflected consistently in the triangulation process, which leads the researcher to conclude that facts are correct and that opinions given by the informant are honest.

7.1.3 Reporting style

A narrative style is used for the reporting of findings. Where appropriate, tables and graphs are used to give a clear picture of certain data. The documentation, emails and verbal information given during telephonic information were studied and the findings were categorised broadly to match the topics dealt with in chapter 2 of this thesis. Under each of the headings used, the practices, standards and policies adhered to at both institutions were discussed, compared and evaluated.

Whenever possible the researcher compared and interpreted the data and information gleaned. This was done in relation to the theoretical framework for this study and also against the researcher's observations and practical experience when working in a technikon library. The researcher gives an interpretative analysis across the two case studies.

7.2 HISTORICAL FRAMEWORK OF AUT AND XUT AND THEIR LIBRARIES

7.2.1 Auckland University of Technology

Auckland University of Technology came into being in 1895 as the Auckland Technical School and was a trade school. They offered evening classes only. In that year, 30 students registered to study such subjects as mechanical and architectural drawing, cookery and dressmaking. In 1906, day school was introduced and about 800 students were registered. The institution was renamed the Seddon Memorial Technical College in 1913 and by 1939 they had 1,746 students and an additional 2,466 students were registered for evening classes. The institution was renamed again in 1960 to become the Auckland Technical Institute. In 1989, they became the

Auckland Institute of Technology (AIT), being the first polytechnic in New Zealand to offer degrees and master's courses. The first degrees were conferred in 1993. At the turn of the millennium in 2000, AIT became the Auckland University of Technology (AUT 2005a).

Faculties of study at AUT are:

- Faculty of Applied Humanities
- Faculty of Business
- Faculty of Design and Creative Technologies (including mechanical engineering, IT and software engineering)
- Faculty of Health and Environmental Sciences
- Faculty of Te Ara Poutama (Maori studies)

AUT is situated on various sites. In 1996 it was foreseen that the Institute might amalgamate with smaller Institutions in order to strengthen its position as it strives for university status (Blanchard 1996:39) so it is possible that AUT will expand to other campuses in the future. At present, the majority of the teaching takes place at the Wellesley and Akoranga campuses, both situated in Auckland. From the Library perspective, the Wellesley site houses the Office of the University Librarian including Library administration, the two Associate University Librarians, the Administrative Assistant to the University Librarian, the Team Leader, Business Development and the Marketing staff member. It is the main or central library.

The Library staff work over both campuses. The Bibliographic Services Team is based solely at Wellesley – all ordering, processing and cataloguing of Library resources is carried out at Wellesley. In addition, the Information and Education Services Team is based mainly at Wellesley, with two team members permanently based at Akoranga. Other staff members travel to and from Akoranga as required. All of the library's team leaders work one day a week at Akoranga on a regular basis. The Akoranga Library houses staff areas for Lending and Delivery staff (includes ILL and Document Delivery) and Liaison staff. The building has just recently been expanded and refurbished. Akoranga is a branch library.

Teaching occurs at both campuses. The Wellesley campus has three Faculties, namely Design and Creative Technologies, Business and Applied Humanities. The Akoranga campus has one Faculty: Health and Environmental Sciences (Jenks 2005c: 1-2).

Currently there are 15,446 full-time equivalent (FTE) students registered (23,500 persons). There are 1,313 members of staff. Research is a high priority at the institution (Jenks 2005a:1).

7.2.2 X University of Technology

Although X University of Technology opened some time later, the paths these two institutions followed from the 1960s is similar. XUT was opened with 189 students in 1966 as a College for Advanced Technical Education. As student numbers increased so the College expanded and in 1975, new buildings were erected. In 1979, these colleges were renamed Technikons and in 1984 the first so-called Laureatus (deemed to be at the same level as a doctoral degree) students registered. In 1994 permission was given to offer degree courses and in 1995 the first B.Tech. degree was awarded. Degrees up to a doctoral level (D.Tech.) could be conferred. In 1998, 14,627 students registered at the Technikon. The Technikon became X University of Technology in 2004 when the tertiary education system in South Africa was restructured (XUT 2005).

In 2005, approximately 15,000 students have registered at XUT for their studies (9,096 FTE students). Research is a high priority and staff and students are encouraged to improve their post-graduate qualifications, publish in accredited journals and present papers at national and international conferences (Q 2005a:1).

Faculties at XUT include:

- Faculty of Applied and Computer Sciences
- Faculty of Engineering

- Faculty of Human sciences
- Faculty of Management Sciences

Apart from four satellite campuses, which will not be part of this study, XUT is situated at two locations and there are libraries at each of these campuses – both forming part of the main campus. The processing for both campuses occurs at the main library. Some staff members are permanently stationed at the branch library.

There is more of an emphasis on the engineering sciences at XUT than at AUT. Apart from this, the faculties and courses offered are similar at the two institutions. There is the same emphasis on research at the two institutions. The student numbers are slightly higher at AUT than at XUT, but the student numbers at the two institutions make them both fall into the category of medium-sized colleges or universities (Faculty use of an academic library reference collection 1998:57). Overall the two institutions do not differ substantially and a comparison would be fair.

7.3 GOALS RELATING TO COLLECTION DEVELOPMENT AND MANAGEMENT

The goals relating to the collection and management of academic library collections must tie in with developments and goals at the parent institution. It is important that library users, and in this case academics and researchers, have access to the information they require at the time they need it. The extent to which policies, standards and guidelines of collection development support the information needs of academics must be reflected in the stated and inferred goals of the libraries concerned.

7.3.1 Goals at AUT

The goals, visions and objectives of AUT's library show a focussed progression towards becoming the kind of library academics would expect to find at a university, and a university of technology in particular. The chronological development of their goals relating to collection development and management reveal their priorities and

ideals during these years of transition from a polytechnic to a university of technology. Goals that are not relevant to this study will not be included.

As far back as 1996, the Institute Librarian stated that the general way in which the Institute operated influenced the Library, especially as the emphasis of academic activities was to become more research orientated. She believed that it was the introduction of postgraduate degrees in particular that would have a considerable impact on the Library (Blanchard 1996:1). In that year, the goal of the library was (Blanchard 1996:38):

> To provide a Library which satisfies the needs of an Institution which aspires to reach the standards of an internationally recognised university.

This goal implies that the quality and size of the collection needed to be upgraded in order to meet international standards. It can be inferred that the collection as it stood in 1996 was not considered adequate to meet the standards.

In 1998, the library's goals included the following (Saw 1998:32-33):

- Developing a comprehensive coverage for basic texts and serials used in teaching.
- Building a collection to support new programmes at 7000 and 8000 levels.
- Building a collection to support research and development at AIT.
- Provide subscriptions to access full-text electronic database coverage at the rate of at least one each per faculty.
- To collaborate with other tertiary libraries to increase information access.

These objectives for 1998 include plans to build up a core collection of library resources to support the teaching function at AIT at an undergraduate level as well as to build up a collection that will meet the information needs of researchers and postgraduate students. Although full-text databases were not used very extensively in polytechnic or college libraries at that time, the goal to subscribe to at least one full-text electronic database per faculty was forward-looking and demonstrates a

willingness to embrace new technology to move closer to the university library they were to become in 2000. Plans to enter into agreements with other tertiary libraries to increase access to information resources also points to a desire to meet the needs of researchers who would require more information than that which could be provided in a polytechnic library. Saw (1998:32) added a further objective to provide enhanced services through providing computer laboratories to increase access and start to replace reading rooms. This objective facilitated access to electronic information resources which would be a waste of library funds if users could not use them.

In anticipation of becoming a university of technology, goals and objectives were set in 1999 that gave clear guidelines regarding collection development at AIT. Objectives for that year include:

- To provide excellent customer service by providing ease of access to electronic information resources, providing electronic and physical collections that support teaching and research needs as well as providing access to remotely held items (Saw 1999:1).
- To provide core services including information in print, electronic resources and audiovisual materials, document retrieval services and access to electronic information (Saw 1999:30).
- To have a book stock of 200,000 volumes and 65,000 volumes of serials by 2008 (Saw 1999:11).

In this year, library management at AIT paved the way for the library's transformation from a polytechnic library to a university library. The objective to build up their book and serial stock to a specified number of volumes over a specified timeframe made it possible to make applications for additional funding from the institution. The objective of 200,000 books and 65,000 volumes of serials was taken with due consideration for the financial position of the parent institution as well as international and national standards for print collections in medium-sized university libraries. If anything, the goal is a conservative one if compared with international standards. No clear guidelines were included relating to the extent of the acquisition of electronic media, but this was included in the objectives, also preparing the way for providing

the kind of library that would meet the needs of researchers and academics at a university of technology.

After becoming a university of technology, the goals and objectives became broader, reflecting the change from a polytechnic library to a university library. In 2003, the library's stated vision was: "AUT Library will be recognised as a leader in fostering the advancement of knowledge". Their mission was:

AUT Library works as an integral, creative and responsive partner with staff and students in teaching, learning and research by:

- Acquiring, organising and enabling access to recorded knowledge.
- Conserving and communicating existing knowledge for the development of new knowledge.
- Empowering the AUT community to be independent lifelong learners (Dewe 2003:3).
- To increase electronic resources and to achieve integration with print resources where not available online (Dewe 2003:5).

Their commitment to acquiring, organising and providing access to information to support teaching, learning and research is still evident in these objectives. As will be seen later in this case study, the objective of reaching a certain collection size has not yet been reached. As the objective still requires attention, it should have been carried forward until it is achieved. These goals lack the urgency of previous ones. Due to the vast changes an institution must undergo to prove itself as a fully-fledged university of technology, this researcher believes that the library's goals should continue to show clearly the direction the library intends to take in order to elevate its status to one that fully supports research, postgraduate studies and teaching at a university of technology.

7.3.2   Goals at XUT

XUT has less clearly defined goals and objectives, especially those giving direction for collection development and management to meet the information needs of researchers, postgraduate students and academics. In 1999, the mission of their library was to provide "a dynamic information service to enhance the academic process and the mission of the X Technikon." The only objective relating to collection development was: "Balanced, relevant collection development" (Van Zijl 1999b:1). It is notable that the technikon had already begun conferring degrees up to a doctoral level at that time, yet no mention is made of a project to upgrade the quality and quantity of the library's collection from that of a Technikon to one that meets the needs of researchers and academics who have to teach postgraduate students in addition to undergraduate students.

In 2001 a consultant was contracted to lead the process of formulating a three-year strategic plan for the institution to position it correctly for possibly becoming a university of technology.   In the lengthy report covering this strategic plan the library was not mentioned once as a part of the institution that would need to be upgraded to meet the future needs of the academics and students (XUT 2001). At the time the book stock stood at around 46,000 volumes and there were less than 500 current journal subscriptions.

In 2003, a year before the institution became a university of technology, the vision of the X Technikon Library was: "to provide dynamic information access to achieve total customer satisfaction". The mission became:

To provide dynamic customer-focused information services and facilities to all users by means of (Van Zijl 2003:1):

- Innovative information and communication technology.
- Well trained and motivated library personnel.
- Relevant and balanced stock of information resources.
- Information literacy programmes.

- Marketing.

Again, the reference to "relevant and balanced stock of information resources" is vague and bears no quantifiable objective to use as a guideline. It is good that they set an objective to use innovative ICT formats to provide information, as these would open a larger world of information resources for researchers and academics at the institution. Unfortunately this objective is not linked to any quantifiable goal either, so it would be difficult to evaluate if the objective has been reached.

Due to shortfalls in the monographic and serial collections in the library which had evolved with the institution as first a College for Advanced Technical Education and later a Technikon, this researcher believes that the goals formulated by the library should reflect clear strategies to upgrade the collection to be more in line with accepted norms for university libraries. This is both in terms of the print collection and the digital information and bibliographic resources. AUT suffered the same historical shortfalls as XUT, but embarked on a clear path to improve the physical and electronic collection at their library – as stipulated in their goals and objectives over the years covering their transition from a polytechnic to a university of technology.

7.4   DETERMINING USER NEEDS

The information needs of academics and researchers were discussed in chapter 4. It was found that they have a need for quick and easy access to information and that they need a variety of channels and formats to get the information they require. Scholars in different disciplines have different needs for information. It was also found that academics need information for research, teaching and learning. Because of the array of information channels, formats and needs, it is essential that library management and selectors of library material find out what the users really need.

Furthermore, both institutions have gone through considerable changes in the past decade and have had to change from colleges into universities. This would surely mean that the needs of users had changed radically in keeping with the new status of the institutions and the increased emphasis on research and postgraduate

qualifications. These changes in status make an understanding of changed user needs essential in both institutions.

7.4.1   Attempts to determine user needs at AUT

Various methods are used at AUT to determine the information needs of their patrons. Not only do they want to provide the kind of library collection that would cater for the actual needs of their patrons, but they are also obliged to adhere to certain standards. For example, one aspect of the Institute that is routinely observed by the New Zealand Qualifications Authority is the ability of the Library to support new courses that are proposed by Departments (Blanchard 1994:16). To this end, there is an agreement that the Institute Librarian will always be kept informed of potential developments that will affect the library (Blanchard 1996:39). This came about mainly because it was found that research activities would increase in importance when the Institute became a university, as there was an increasing emphasis on degrees and postgraduate qualifications.

One of the methods used to determine the needs of library patrons is to conduct surveys. AUT conducts surveys bi-annually for staff and students, and at least six questions in the survey pertain to the library. Although the data gained from this questionnaire is not very extensive and there is a perception that the questions should be improved, respondents do give an idea of their needs and of how effective the library is in meeting these needs (Jenks 2005d:1). Another instrument used in 2004 for studying the information needs of students was the Rodski tool. The AUT library will shortly be using LibQUAL™, which is an instrument used in Australian libraries that are part of the Australian Technology Network (ATN) to evaluate user needs and to evaluate their stock and services. This instrument was developed by statisticians for the ARL. More than 500 libraries from the USA, Canada, Europe and Australia have used this online survey. Responses can be analysed in the USA by ARL staff who will then provide comparisons with peer institutions. This is useful in developing benchmarks and understanding best practices across institutions (Rhodes University 2005:1). Using LibQUAL™ the AUT Library hopes to benchmark its services. They wish to build up a data bank to monitor their progress. The idea of conducting

the kind of longitudinal study they envisage is laudable because in this way they can see how projects they embark on have succeeded in meeting the needs of their users. Apart from surveys, the library seeks feedback by making feedback forms available online so that users can report back on failures or successes they have found in their dealings with the library. There is also a channel whereby the Student Senate can report directly to the Vice-Chancellor and can also involve the Faculty Boards. This kind of feedback is not initiated by the library however, and only occurs when the student body is concerned about some aspect of the library services or stock. Another way in which students can give feedback about their needs is through their monthly magazine known as *Debate*. This publication often carries articles about the library, and suggestions or criticisms contained in *Debate* are dealt with by the Library. Library users may also voice their opinions to the staff manning service points and these comments are dealt with as required (Jenks 2005d:1). AUT staff have on occasion also been asked for feedback about the library stock and services, but no project exists to seek this feedback on a regular basis.

Due to the changes taking place at AUT regarding research activities and postgraduate studies, a more structured approach to seeking input from researchers, academics and other library users could lead to a library stock and library services that are more in line with what users need. Were they to start using LibQUAL™, it is probable that they would gain a better idea of user needs than is possible with the current practice of relying mainly on the AUT survey, of which the library forms only a part.

7.4.2   Attempts to determine user needs at XUT

South African tertiary institutions and their libraries are obliged to adhere to the requisites of certain bodies, such as the Higher Education Quality Committee (HEQC). It is necessary that the institutional library be able to support the teaching and research programmes at each institution and the library's ability to do so is evaluated at regular intervals.

The XUT library uses a number of methods to gain information about the needs of their users. Similarly to AUT, XUT also carries out an institutional survey of students' satisfaction with the institution. Several questions relating to the library

have been included in the survey instrument, and the findings are forwarded to the library. This survey is not carried out regularly at set intervals, but the feedback gleaned from this exercise is valuable in determining the needs of library patrons. The library also conducts its own surveys using questionnaires compiled by library staff relating to specific areas of concern. The findings of these surveys play a large part in improving library services.

At times, the library places suggestion boxes at service points to elicit user feedback and users are also able to submit comments, suggestions and complaints online via the library's OPACs. Suggestions for information resources such as books and serial titles can also be submitted online through the library's system, *Innopac*, or they can be given to the subject librarians who each work for a specific faculty or subject area.

The most valuable feedback on user needs has come from the surveys conducted by the library itself. Reports from the HEQC also enjoy high priority and recommendations from these reports are given attention.

As with AUT, there is no ongoing and regular evaluation of user needs and no longitudinal study of these needs is carried out to indicate progress made in the library. Both libraries are endeavouring to ascertain what the needs of their users are, but this researcher cannot see enough commitment to monitoring user evaluation and to evaluating their changing needs. AUT's planned implementation of LibQUAL™ as a means of gauging user needs and their satisfaction with the library's stock and services regularly could go a long way to righting this problem.

7.5   COLLECTION DEVELOPMENT POLICIES

In spite of the problems involved in drawing up, implementing and updating collection development policies (CDPs), they have been found to be valuable tools in determining the direction envisaged for collection development in academic libraries. They are particularly necessary in universities of technology in South Africa and in New Zealand because these institutions are in their infancy, and practices in the institutions from which they evolved, namely technikons and polytechnics respectively, have gone through increasing emphasis on research and postgraduate

qualifications. This means that their libraries too have had to evolve from those catering primarily for undergraduate students' needs to research libraries. The CDPs at these new university libraries should reflect the changing environment and the accompanying responsibilities.

7.5.1 AUT's collection development policy

As far back as 1996, a long-term objective was "to maintain an evolving collection development policy for the Library collection" (Blanchard 1996:40). This indicates that AUT's Library believed in the value of a CDP as a tool for effective collection development.

Before becoming a university of technology in 2000, AIT did not use a CDP. Unfortunately this means that no comparison can be made between collection development and management practices before and after becoming a university of technology. The CDP used at present is known as an "Information Resources Policy" (AUT 2004) and is a work in progress. This policy relates to "the process by which the Library selects, deselects and assesses information resources" (AUT 2004:2).

In terms of the policy, the library's information resources are assessed according to the WLN Collection Assessment Methodology (AUT 2004:2).

Relevant to this study is section 9 of the CDP which explains the background to the collection. This section explains the following (AUT 2004:3):

> The AUT Library collection contains monographs, serials, audiovisual materials, microfilm, electronic media and archival materials. Since achieving University status in January 2000, the Library has endeavoured to broaden the subject areas collected and has dramatically increased access to electronic resources. The resulting increase in students studying at Masters and PhD levels has required the Library to start purchasing resources at a research level.
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This section makes the extension of the print and electronic collections a matter of policy. The undertaking to "start purchasing resources at a research level" reveals a resolve to change the status of the library from a polytechnic library to one that will meet the information needs of students, academics and researchers at a university. In this instance, the "research level" refers to degree of coverage in different subject areas according to the conspectus method used in the library.

Funds are allocated to the library and the capital budget is used to purchase monographs, audiovisual materials, stand-alone CDs and both print and electronic serials. A portion of the operations budget is used to purchase access to online electronic resources. Funds are then allocated to the various faculties according to an acquisitions formula which takes into account the number of FTE students. There is extra weighting for the numbers of postgraduate students in the faculties and the average book price in each discipline (AUT 2004:4).

Also included in the CDP are the selection procedures and the criteria that are used for selection of individual items. The ways in which resources can be accessed are discussed and the collaborative partnerships with other libraries are spelt out.

This is followed with the policies relating to specific types of information resources that form the library's collection. Reference resources include current primary, secondary and statistical information in print and digital formats. These resources are mainly English language resources with Maori resources being acquired when available (AUT 2004:6). Serial resources are also acquired and are reviewed annually to evaluate their cost, continuing relevance, and to investigate possible duplication between print and online access through aggregated databases. The library's "open access collection" includes books, stand alone CDs and kits. There is also a "high demand collection" consisting of items (mainly books) closely related to student course work and assignments. These could also be videos, kits, journals and journal articles and e-resources (AUT 2004:8). Electronic resources form an important part of the library's collection and when possible, these are acquired through consortial licensing arrangements. Electronic resources include remote databases, electronic subscriptions and URLs. Also included are CDs and DVDs. Electronic access is provided for information that is relevant to courses, teaching and research. Licences

to bundled or aggregated databases are acquired if their content gives coverage of core information. Duplication of electronic and print items will be avoided except for core, high use titles, when a database is considered unstable or when a serial subscription includes access to both formats for the same fee (AUT 2004:10). Relevant and course-related URLs are added to the catalogue for electronic subject guides or databases. E-journals subscriptions are purchased concurrently with print titles when available.

The CDP ends with a section whereby the collection's current and desired levels are given according to subject fields included in the collection. The collection in every subject field has been evaluated according to the WLN conspectus method. This section is particularly valuable for collection development as it gives an indication of the strength of the collection in each subject field. If the collection's "Current level" is below the "Collection goal" level, funds would have to be channelled to that subject to bring it up to the desired level. Each subject field also includes the following information:

- Courses which are supported by this division
- General description
- Retention
- Exclusions

These sections provide specific guidelines for the material in each division. In the *Business* section, for example, the General description include the following information (AUT 2004:17):

> Electronic databases significantly strengthen the serials collection. Both *ABI/Inform Global* and *Emerald* are well-used resources ensuring that periodical requirements for undergraduate students and most postgraduate students are met.

In the *Biological Sciences* section, the General description indicates that electronic resource coverage in this section is not high and that interlending and document

delivery is thus essential in this subject field for higher-level materials (AUT 2004:17). Comments throughout the section on the collection's level of strength appear to be honest and provide a clear picture of the strengths and weaknesses in the collection. This section would have to be updated annually if it were to be a useful tool for collection development and management. Currently the CDP is not reviewed regularly which means that the information about collection strengths and weaknesses is not necessarily still correct.

7.5.2 XUT's collection development policy

XUT has had a "draft collection development policy" since 1999, but the policy has not yet been fully implemented and accepted as the authoritative policy according to which collection development is carried out at the institution.

In the XUT collection development policy, the ALA Conspectus method is advocated as a means of evaluating and describing the collection. The following parameters are given for collection development (Van Zijl 2003:3):

- To collect material at level 3 (study/undergraduate level) in all subject areas included in the teaching programme of XUT. Should certain departments develop so that there are many post-graduate students and researchers, level 4 (research level) will be the collection level aspired to.
- For subject areas which are not included in the curriculum of the Technikon but which are considered useful for economic, political, religious and social reasons, level 1 (minimal level) will be the norm for collection depth.
- There are several interdisciplinary areas for which users require material for background knowledge. For these areas, level 2 (Basic level) will be applied.

In the draft policy which was developed prior to becoming a university of technology, the collection goal for most material would be level 3 (study/undergraduate level), with the goal in some instances being elevated to level 4 (research level). English is the preferred language for library resources. Regrettably the conspectus evaluation was not carried out, so the degree of compliance with these goals is not documented.

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According to the CDP, the library strives to maintain a balance between monographic literature, serial material, audiovisual material and electronic media. The principles guiding XUT for allocating funds for the various formats of information media are:

- user needs
- infrastructure available to provide access to electronic information
- availability of funds
- developments in the field of information resources

In this way the collection development principles are very similar to those of the AUT Library. Regrettably surveys regarding user needs are not conducted regularly, so the funds are allocated according to the perceived needs of users gathered through interaction between library users, academics and subject librarians in the various disciplines. As user needs have undergone significant changes due to the technikon's transition to a university of technology, it is conceivable that the allocation of funds for various formats is based on defective impressions of user needs.

An amount is allocated to the library every year for books and audiovisual material, another for serials and an additional amount is allocated in the operational budget for electronic resources. When the annual budget is approved, the head of the Technical Services Department in consultation with the subject librarians and the heads of academic departments would decide how the monographs and audiovisual budget should be divided up. Factors taken into account are the number of FTEs per faculty, the average book price, circulation statistics, new courses offered and research activity in each of the faculties (Van Zijl 2003:4). After becoming a university of technology, a mathematical formula was formulated for the allocation of funds to the various faculties (Van Zijl 2005:5). The serials budget is largely governed by the current subscriptions which have to be renewed, any additional funds allocated will be used for new subscriptions as identified and recommended by faculty and subject librarians.

In addition, the CDP explains policies relating to weeding of material, criteria used for selection of material, who is responsible for selecting library material, how gifts are dealt with and what the policy is regarding the purchasing of duplicate copies of monographic material.

A notable difference between the CDPs of AUT and XUT is that XUT lacks a commitment to building up their stock of print journals and serials to a level that would meet the information needs of researchers and academics. A target was given in AUT's *Information Resources Policy* to broaden the subject areas collected at this institution and to "dramatically increase" access to electronic resources (AUT 2004:3). There is no clear policy statement in the XUT policy to indicate a commitment to building up a research collection. The section in AUT's policy statement giving current and goal collection strengths is also lacking in that of XUT, as the stock has not actually been evaluated to date. This means that no indication can be gained as to the relative strengths and weaknesses in the subject areas covered in the XUT library. Guidelines regarding the acquisition of electronic resources are much clearer in AUT's CDP than in that of XUT. This does not mean that XUT has not developed its collection of electronic resources in line with changing user needs as will be shown in section 7.6 below. It is just that the principles governing access to electronic resources have not been formulated into a policy.

As libraries have to vie with other programmes at their institutions for funding, it is essential to be as precise as possible about their projects and aims in order to formulate meaningful proposals for additional funding. Polytechnic and technikon libraries have in the past not been funded as well as those of universities and a clear focus on improving collections must be spelt out in the CDP of a new university of technology.

7.6   INFORMATION RESOURCES BUDGETS

There is a great discrepancy in the size of budgets allocated to academic libraries for the purchase of information resources. As technology develops, the proportion of the budget spent on various formats is changing. Electronic resources and serials are comparatively expensive which means that over the course of time, an increasing

proportion of the budget is spent on information resources in these formats. Budgeting practices at the two universities of technology in this case study support this tenet to a greater or lesser degree.

7.6.1   Budgets at AUT

In 1994, the material budgets at the Auckland Institute of Technology came from three sources: 86% was supplied from the library funds, 11% from Staff Reference funds and 3% from Special Grants (Blanchard 1994:22). It must be remembered that AIT was given permission in 1989 to offer degrees and master's courses. This period thus reflects a time that the library was developing from that of a college that prepared students for diplomas, to one that offered graduate and postgraduate courses. The first graduation ceremony was held in 1993. The library funds remained under the control of the library but were allocated to subject areas according to the number of FTE students enrolled. A proportion of the funds were set aside for interdisciplinary purchases. Staff reference funds were supplied by the departments to buy material for staff to use on long-term loan from the library (Blanchard 1994:22).

In order to build up the library's collection into one that supported the new status of AIT, in 1996 a basic assumption was adopted by the institution that the library would be funded at a minimum of NZ$340 per FTE student[2]. This amount excluded allowances made for depreciation. One of the library's objectives was to ensure that funds were available to provide library materials in a quantity or of a quality that matched international expectations of a comparative institution (Blanchard 1996:40). In 1990, a study had been undertaken comparing the funding of comparable institutions. This revealed that the allocation of funds to the library would have to be doubled if AIT wanted to match the allocations of libraries in comparable degree-granting New Zealand institutions. A similar comparison in 1994 revealed similar results. In that year the expenditure on the library per FTE student at AIT was NZ$236 (Blanchard 1996:41). Although the allocation per FTE student was not doubled, it had been increased by 44%. It was noted that equipment is required to

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[2] At an exchange rate of approximately R4.40 per NZ$ in 2005, this amounts to nearly R1,500 per FTE student.

access electronically readable materials and that this should also be included in the library's budget in future. This shows that the library and AIT itself realised that offering degrees and master's courses in addition to the diplomas previously offered, meant that the library had to be upgraded. An undertaking was made to increase library materials and equipment budgets in order to realise this objective.

Figure 7-1: Proportion of budget spent on various formats - AUT

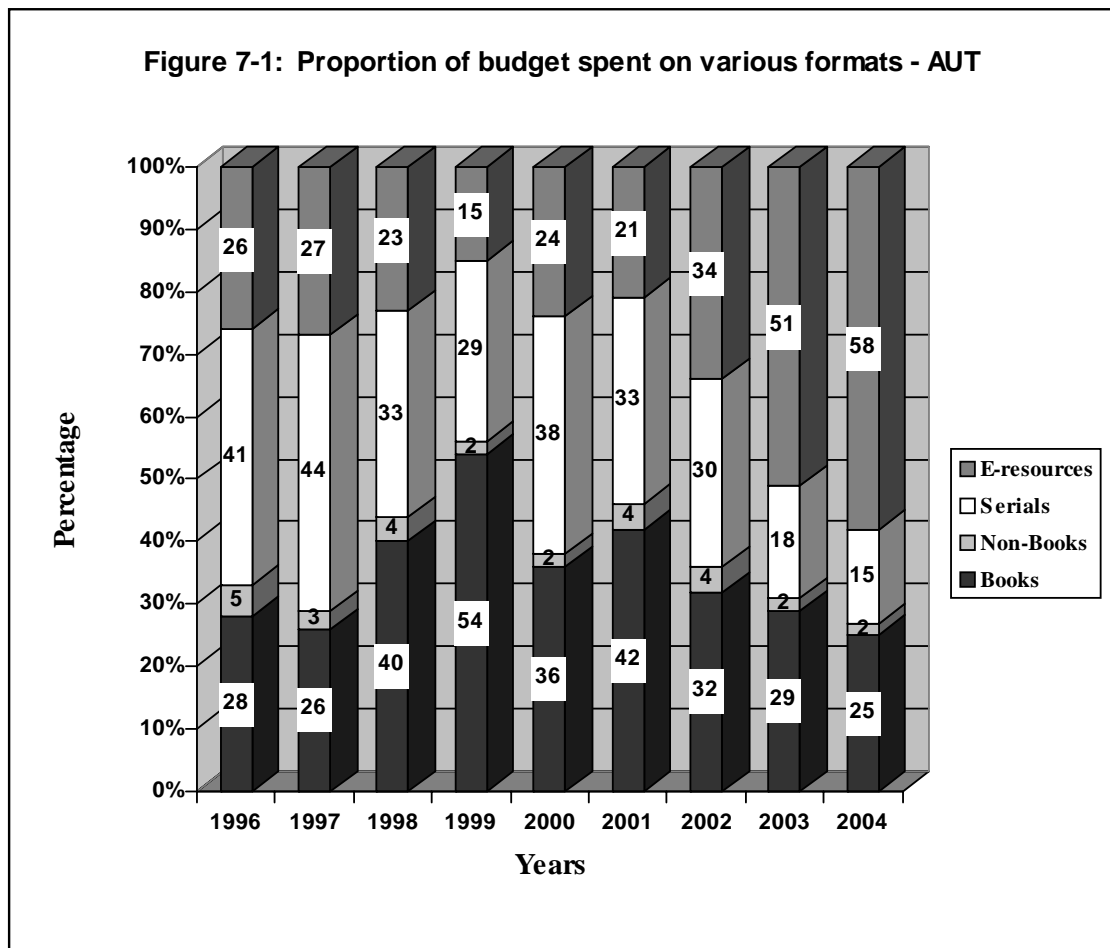| Year	Books	Non-Books	Serials	E-resources
1996	28	5	41	26
1997	26	3	44	27
1998	40	4	33	23
1999	54	2	29	15
2000	36	2	38	24
2001	42	4	33	21
2002	32	4	30	34
2003	29	2	18	51
2004	25	2	15	58

Figure 7-1 shows the proportion of the materials budget spent on the various formats from 1996 to 2004, as reflected in the library's annual reports. Some trends can be discerned in this data. In 1997, there was increased spending on serials. There was also a slight increase in expenditure on e-resources. At that time, electronic resources consisted mainly of CD-ROMs. Use of online resources was not yet widespread (Saw 1997:7).

It should also be noted that in 1997 the capital budget increased by 17% to $700,000. In addition $300,000 was given for the purchase of a new computer system (Saw 1997:3). Although expenditure looks fairly consistent from 1996 to 1997, there was an increase of approximately 17% for all the types of information resources included in figure 7-1.

In 1998, there was a further increase of 56,5% in the library's materials budget. Out of this, 5% was set aside for the purchase of accompanying equipment with which to access electronic resources (Saw 1998:13). An Information Resources formula was developed in 1998 for the allocation of the budget to the faculties based on FTEs, with postgraduate and research weightings (Saw 1998:13).

In 1999, the library was awarded a ten percent increase in capital budget (Saw 1999:2). As reflected in figure 7-1, more than half of the total budget was spent on monographs (Saw 1999:10).

In 2000 AIT became the Auckland University of Technology. Plans to improve the quantity of information resources were on track as budgets had shown substantial and sustained growth since the institution began offering degree and master's courses. In addition (Saw 2000:2):

> Changes have been reflected in the move to electronic resources and the phenomenal budget growth that has been associated with providing these new services, remote access and availability of electronic databases. Budget growth has followed the attendance level of tertiary students at AUT.

As can be seen in figure 7-1, 2000 was the year in which the trend to increase the proportionate amount spent on electronic resources and to decrease that spent on print serials began. Then in 2001, the library's acquisitions budget was increased by 50%. This demonstrated AUT's commitment to increase and improve library resources as outlined in its 5-year plan in 1998 (Saw 2001:10).

From 2001, the resolve to increase electronic access to information and to avoid duplication between print and electronic versions of serials can be seen. Another

feature seen in figure 7-1 is that the proportion of the total budget spent on books and non-book material including videocassettes did not diminish substantially. This demonstrates a resolve to build up the library's collection of books and audiovisual material, in addition to increasing access to electronic material.

A look at increases in materials budgets from 1996 to 2004 gives another picture of AUT's commitment to improve the size and quality of their library collection to meet the changing needs of researchers, academics and postgraduate students. This can be seen in figure 7-2. Over this period, the materials budgets at AUT (including print, non-book and electronic information resources) have increased by 717%.

Figure 7-2: Materials budgets
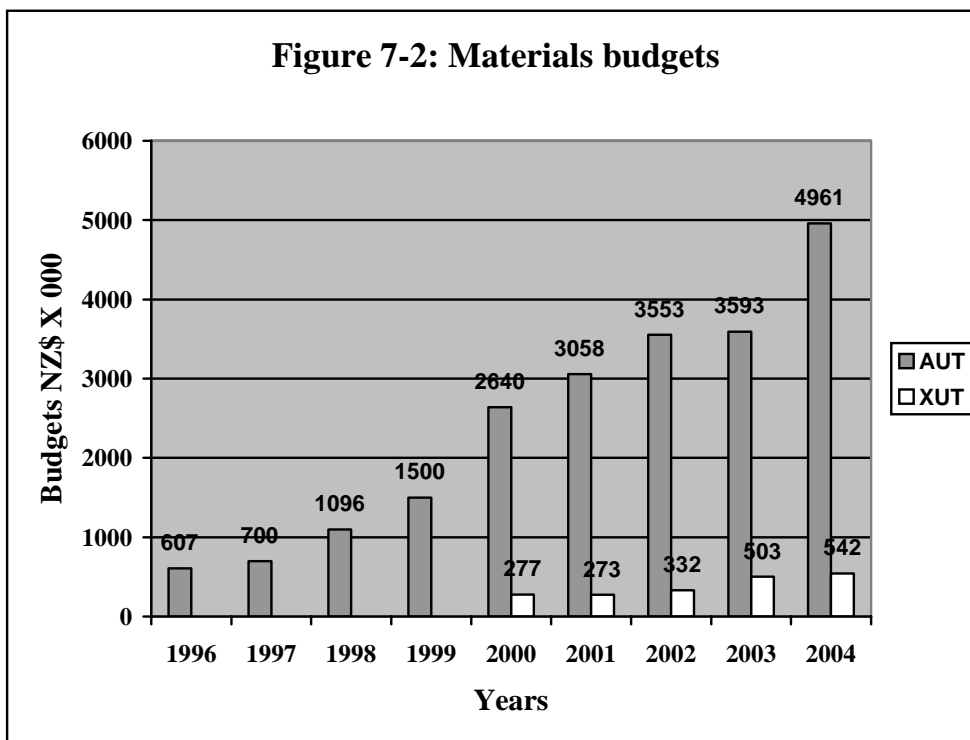
Statistics are not available of the total library expenditure per FTE student until 2000. Table 7-1, however, shows what was allocated to the library from 2000 to 2003 per FTE student (Dewe 2003:10). The allocations have surpassed the target of NZ$340 per FTE student by a large margin. Budget allocations at XUT, also reflected in figure 7-1, will be discussed in section 7.6.2.

Table 7-1: Total library expenditure per FTE student

Year	2000	2001	2002	2003
$ per FTE	486	568	566	526

The gradual decline since 2001 is coincidental as the allocation for library materials is not worked out according to the number of FTE students at the institution. Since AIT was given permission to offer degrees and master's courses, they have demonstrated a clear resolve to provide additional funding to upgrade the library's collection from that of a college to that of a medium-sized university. Materials budgets have risen by large amounts each year since 1996 with a view to improving the quality and quantity of the resources available in or through the library. As technology has advanced AUT has had to make additional funds available to provide access to online databases. This funding was granted in addition to adequate funding to allow the library's physical collection to develop in line with the higher level of information needs of researchers, academics and postgraduate students at a university of technology. Although the library's budgets have not yet reached the six percent of the total institutional budget level recommended by ACRL (Morris 1986:192), the library is clearly a high priority at AUT. As shown in table 7-2, since 2000, the library has received the following percentage of AUT's total institutional budget (Jenks 2005d:1):

Table 7-2: Percentage of total institutional budget given to AUT Library

| 2000	2001	2002	2003	2004
4.2%	4.41%	4.3%	4.14%	4.51%

By following this path of proportionately increasing the library budgets, they have met the 2000 ACRL standards which encourages college and research libraries to find out what kinds of collections are available in similar institutions. Such studies were undertaken and AUT committed itself to provide the funds needed to bring their library's collection in line with that of peer institutions in New Zealand. ACRL also recommended that the budget should meet the reasonable expectations of library users when these are balanced against other institutional needs (ACRL 2000:182). This researcher found that AUT has, on an ongoing basis, provided the kind of budgets to

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enable the library to meet the reasonable expectations of their users in their new status as a university of technology.

7.6.2   Budgets at XUT

The total library budget at X Technikon and later XUT came from one source only, the institution itself. Although some amounts are donated by trade and industry for specific purposes, these cannot be included in collection development programmes as they are not ongoing and cannot be relied upon as sources of income. One amount is allocated for the purchase of books and audiovisual (non-book) material. Another amount is allocated for serial subscriptions and yet another for electronic resources. Out of the monographs allocation, funds are allocated to the various faculties according to the number of FTE students, average book price, circulation statistics and certain other factors.

Figure 7-3 shows the proportionate amounts allocated for the various formats in XUT Library. One amount is allocated for the procurement of books and audiovisual material. This amount is reflected under the heading "Monographs" in figure 7-3. It can be seen that a larger proportion of the materials budget was allocated to electronic resources in 2004 than in previous years. This was the year in which X Technikon became X University of Technology. No information was given regarding the size of the materials budgets at XUT but this chart shows that an attempt was made in 2004 to extend the library's collection through providing access to a larger number of aggregated services whereby users could access full-text electronic journals. Increased funding for these databases is a positive measure on the library's part to make up for the inadequate collection of print resources at the institution.

Figure 7-3: Proportion of budget spent on various formats - XUT
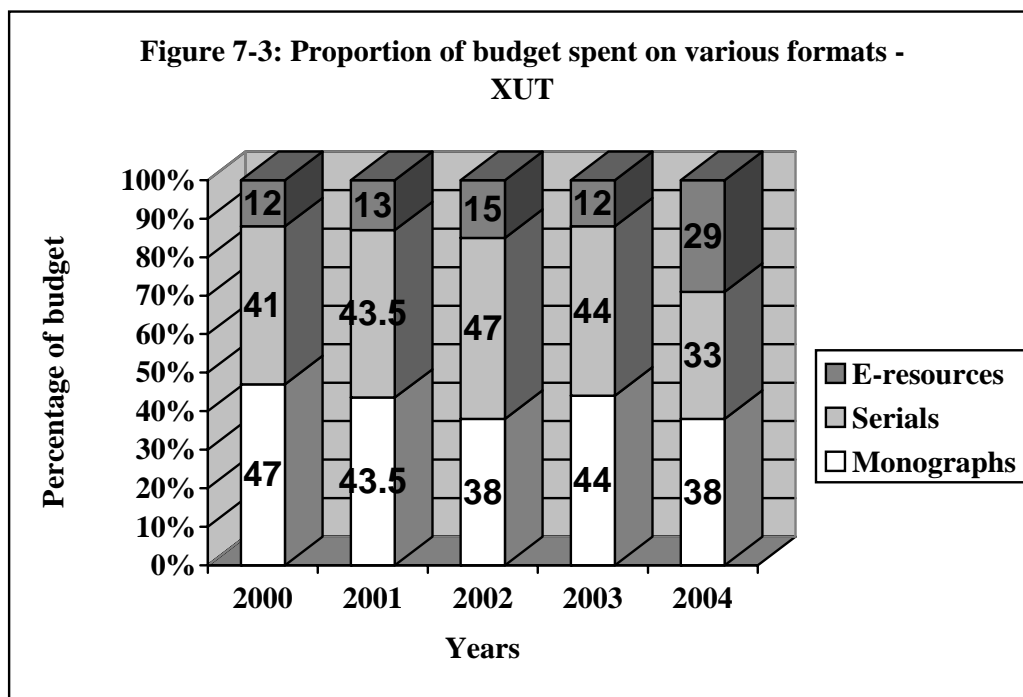
X Technikon conferred its first degree in 1995, two years after AIT conferred its first degrees. There was no possibility of building a library collection better able to meet the information needs of researchers and postgraduate students because throughout the 1990s, the library was limited in its budget increases to approximately 5% per annum, as were the rest of the departments at the Technikon. Although various motivations were submitted to the managing body of the institution asking for additional funding because of the new demands made on the library due to the institution's permission to offer degrees up to a doctoral level, no additional funding was given (Q 2005a:1).

In 1999, a once-off amount of R500,000 was given to the library in addition to the materials budget to purchase library resources (Van Zijl 1999a:1). As this was just to be given that year, it was not possible for the library to subscribe to many new journal titles, as these subscriptions could not be sustained in the future without additional ongoing monetary resources.

In the five-year period from 1997 to 2000, the library's materials budget had risen by only 20%. In view of the fact that the average price of print resources had more than doubled in this period, the increases in the budget made any meaningful collection

growth impossible. In fact, due to the small size of the print collection relative to the number of students and other library users at the technikon, the books and journals were overused and many had to be deselected due to their poor condition. As seen in figure 7-2, the materials budgets at XUT (converted to NZ$ at an exchange rate of R4.40 per NZ$) are considerably smaller than those of AUT. There was a 53% increase in the allocation in 2003, the year before becoming a university of technology, which demonstrates a desire to provide access to more information resources. However, compared to the measures taken by AUT to upgrade the library's collection to that of a university when they were allowed to confer degrees and master's courses, XUT's lack of financial backing to build up the collection beyond that of a college or undergraduate institution is a cause for concern.

7.7 COLLECTION SIZE AND COMPOSITION

In section 2.2.4.2 of this thesis, international standards regarding library collections were examined. Although there is not one definitive standard for medium-sized academic libraries, research shows that academics expect that their libraries will hold an extensive stock of well-selected information resources in various formats so that most of their information needs can be met immediately from local stock. It has also been proven that there is a direct relationship between the prestige of an academic institution and the size of its library collection (Liu 2001). It is important to discover to what extent libraries at recently developed universities of technology meet the standards for collection size and strength. The inclusion of the various formats in which information is made available and the composition of hybrid collections in universities of technology is another important factor in collection development and management.

7.7.1 Development of library collection at AUT

In 1994, the Institute Librarian at AIT realised that changes would have to be made because of AIT receiving permission to grant degree and master's courses in future (Blanchard 1994:7):

The library, then, for the foreseeable future, is likely to include a significant quantity of printed material, but with enhanced communication for the transfer of information about information [*sic*] and of a limited proportion of serials. The acquisition of non-book material is driven by the demand from within the Institute.

This statement predicts that the library would extend its print collection, while at the same time providing access to electronic and print bibliographic resources. Metadata was also seen to be important as it directs the user to the required information.

In 1990 and 1994 the library's collection was evaluated and found wanting with regard to its ability to meet the needs of researchers and postgraduate students. It was indicated that a medium-sized academic library at that time would be expected to hold about 250,000 volumes of monographic material (Blanchard 1996:41). At that time, AIT's library held approximately 55,000 volumes. Another factor contributing to a resolve to improve the library's collection was that the New Zealand Qualifications Authority (NZQA) stated in their report that the funding of the Library was inadequate to provide proper resources for the support of higher degrees (Blanchard 1996:38). The Librarian maintained that printed resources were the main estimator used to evaluate the adequacy of the library's stock.

In 1996, which shall be regarded as the base from which collection changes started to increase, the library's collection was as reflected in table 7-3 (Blanchard 1996:28-29).

Table 7-3: AUT collection strength - 1996

Monographs	Non-book	Serials	Bibliographic resources
55,036	6,454	1,785 titles	Print indexes – 20 Microfiche index – 1 CD-ROM index – 23 Diskettes - 12

In addition to this collection of information resources, the library also made provision for the equipment to use the resources. This included shelves and re-enforced flooring for the print collection, computers, audio- and videotape players, microform readers and printers (Blanchard 1996:17).
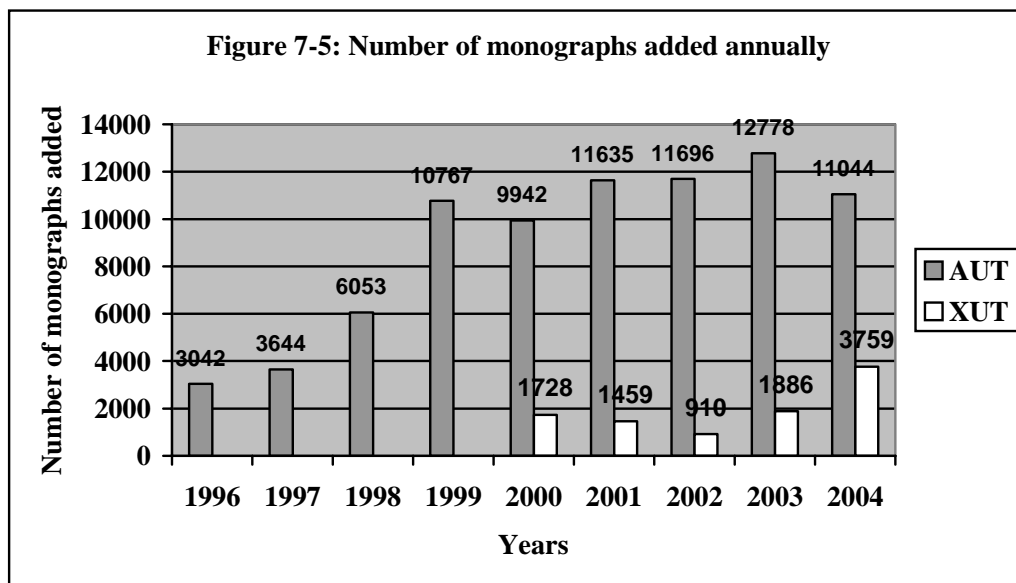
The library management of the Auckland Institute of Technology recognised that they would have to embark on a process of building up their collection in line with international and national standards, more sophisticated and advanced user needs and the capability of the institution to provide the funding for such evolution. Progress in the collection of different formats will be dealt with separately.

7.7.1.1   Books

AUT was aware that the library's collection of monographs was substandard and embarked on a project to try to bring the collection in line with that of similar medium-sized universities.

Figure 7-4: Size of book stock
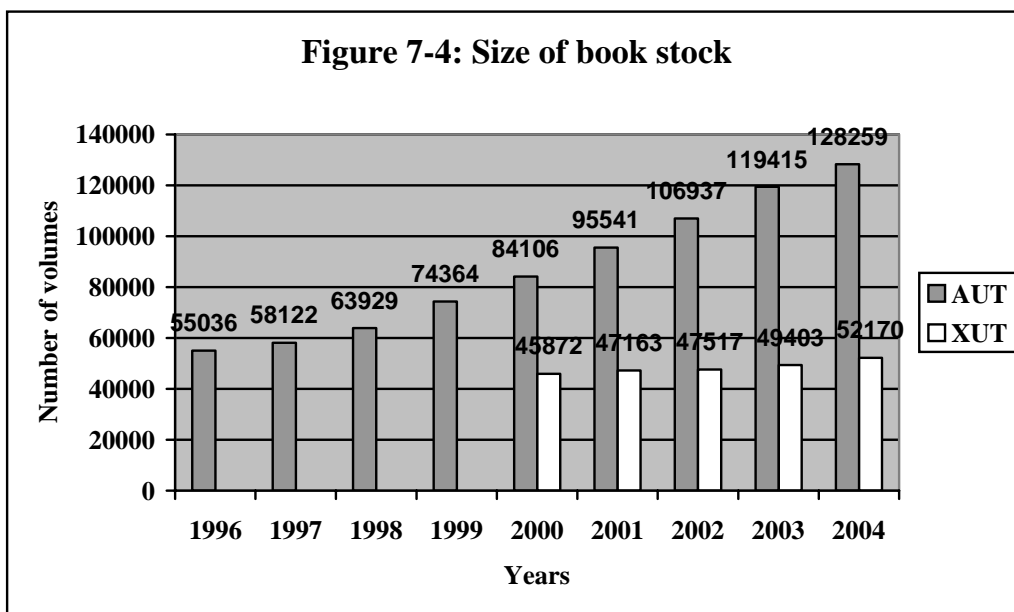
In figure 7-4, the growth in the collection of books in the AUT Library is depicted. This figure shows that the stock of books at AUT has increased by 133% in 9 years. Since becoming a university of technology in 2000, the stock has increased by 53% (Jenks 2005a:3). The projected goal of 200,000 volumes of monographs has not yet been reached but it can be seen that the collection is now much more comprehensive than it was before the institution began offering degree courses. Although shown in figure 7-4, the growth in XUT's collection of books will be discussed in section 7.7.2.1 of this thesis.

Figure 7-5: Number of monographs added annually

Chart data (monographs added per year):

Year	AUT	XUT
1996	3042	
1997	3644	
1998	6053	
1999	10767	
2000	9942	1728
2001	11635	1459
2002	11696	910
2003	12778	1886
2004	11044	3759

Y-axis: Number of monographs added (0 to 14000)
X-axis: Years
Legend: AUT, XUT

Each year a number of monographs are written off as they become obsolete or damaged. In figure 7-5 the exact, gross number of volumes added to the library each year is shown. This gives a clearer picture of the way the collection of monographs is progressing. Although statistics are given in these charts for both AUT and XUT, the development of the XUT Library collection will be discussed in section 7.7.2.

The growth since the years prior to becoming a university of technology in 2000 is particularly large. In spite of the price of monographs rising by approximately 13% per annum (Blanchard 1994:21), AUT has continued to increase materials budgets proportionately to enable the library to continue adding around 11,000 volumes per annum. In 1998, for example, the library's acquisition rate for monographs increased by 66% (Saw 1998:6). In that year, the capital budget for purchasing books increased by 10% and the number of library books in stock increased by 11,27% (Saw 1998:3). In 1999, the number of library books increased by 16% (Saw 1999:2).

In an ongoing effort to evaluate the library's success in its efforts to improve the library stock, faculty members were asked to evaluate the library and its collection in 2000. The Dean: Faculty of Arts indicated that electronic information resources would continue to improve access to library materials but that these will never replace books, which will continue to be an essential ingredient of a university library (Saw

2000:7). Another staff member from the Department of Tourism noticed with satisfaction the increase in resources provided for under- and postgraduate students (Saw 2000:8).   The value of monographs in the AUT Library had not diminished in the minds of academics at that institution. This is in keeping with research findings into the information needs and information-seeking behaviour of academics and researchers. In certain fields, books are still the preferred format, and many academics still consider books to be important for teaching, research and learning.

The Library is in the advantageous position of enjoying the support of the Deputy Vice-Chancellor (Research & Development) at AUT who said (Saw 2001:6):

> Looking to the future and from a particularly strong research orientation the Library needs a bigger collection and greater access to other collections … The Library's present collection does not reflect a research-intensive university … It would be of great benefit to see more interaction between the Library and the Research Deans.

The Deputy Vice Chancellor (Administration) and General Manager also found the collection inadequate. He maintains that the development of their library collection remains the greatest challenge and one that should be seen as a good standard of investment. Feedback showed that the size of the collection does not meet standards. Saw (2001:7) states as follows:

> So our challenge for the future is to move towards a print collection of two hundred thousand volumes, and very high access to electronic resources.

This support from the institution is the main reason why the collection has been able to grow so quickly. The fact that the Deputy Vice Chancellor (Administration) and General Manager believes that a collection of 200,000 volumes is desirable, ensures that institutional funds will continue to be channelled into the library to this end. It also indicates that the University has the funds available to channel to the library for this purpose as the New Zealand Government had allocated sufficient funds at AUT to enable the technical college to upgrade to a university.

In 2003 the library set up guidelines in order to work with monograph vendors to start filling the gaps in the monograph collection (Dewe 2003:5). This attempt to collect valuable monographs that had been published in previous years further demonstrates the resolve of the library to develop a well-balanced collection of monographs including all the classics that could not be purchased in the past due to inadequate funding.

By 2003, the annual increase in the number of books acquired at AUT was similar to that of other universities of comparable size. The University Librarian stated in her annual report that (Dewe 2003:3):

> Although the total collection size is still relatively small by university library standards, AUT is keeping up to date with recent publications required for learning and research.

It is desirable that the budgets for monographs continue to support the level of growth shown in the past five years or even increase to enable AUT to reach the 200,000-volume target. This should be the minimum target for a university of technology of this size, taking into account the international standards for medium-sized academic libraries discussed in section 2.2.4.2 of this thesis. It should also be borne in mind that approximately 50,000 English language scholarly and academic monographs are published each year (O'Connor & Pugh 2000:65). This means that the universe of printed monographs is growing constantly. As the 200,000-volume target was set in 2001, it is desirable that this minimum target be reached as quickly as possible, to obviate the situation where the library's book collection becomes increasingly outdated.

7.7.1.2   *Non-book materials*

The AUT Library developed their collection of non-book material (consisting mainly of video- and audiocassettes and DVDs) at the same time as they developed the rest of their collection of information resources. In 1995 there were 6039 non-book items in the library, 6015 of which were video recordings (Blanchard 1995:29). In 1996 the

use of non-book materials grew rapidly. In that year there was an increase of 22% in the use of such materials (Blanchard 1996:9).

Figure 7-6 shows how many non-book items were added to the library's collection from 1996 to 2004. This chart shows that non-book items continue to be considered important information resources in AUT. The development of this part of the

Figure 7-6: Non-book items added annually
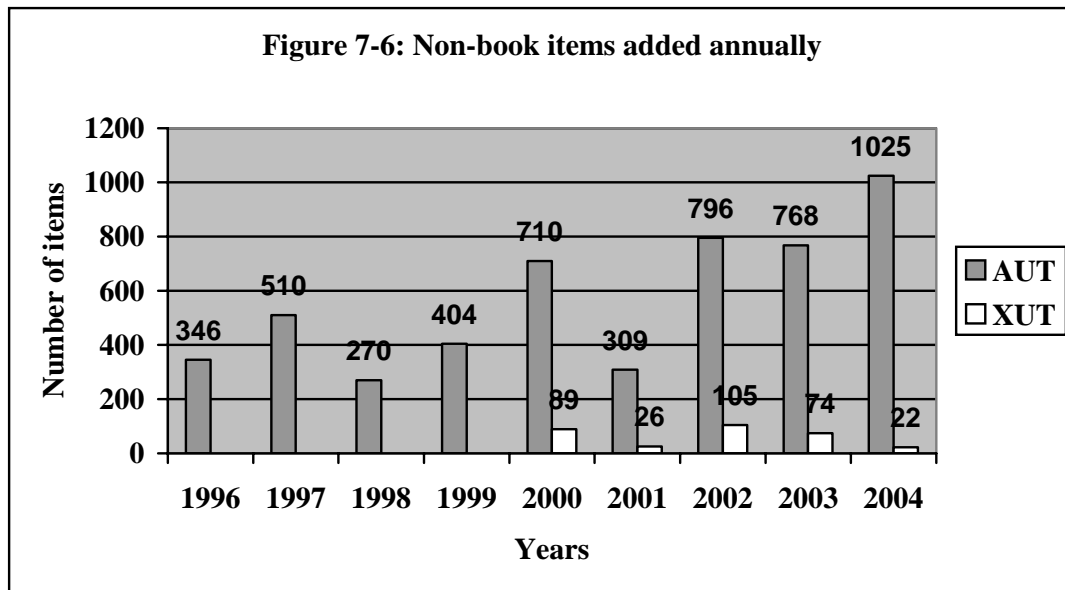
collection was not adversely affected by the increasing prevalence and developments in the field of electronic information resources. As these information resources are well used by the students in particular, care has been taken to extend the collection to meet user needs. These are useful to academics as well because they use them mainly for teaching purposes. In 2005, the collection of non-book items stood at 10,422 items. The number of non-book items has increased by 39% since AIT became a university of technology in 2000 (Jenks 2005a:3).

In spite of the growth in the collection of non-book materials, these are clearly not the highest priority at the institution as only a small percentage of the annual budget is spent on these resources as seen in figure 7-1. The other formats in which information is provided are more useful to researchers and academics, especially for scholarly communication in general, and for research in particular. Expenditure on

non-book materials is mainly to meet the information needs of undergraduate students.

7.7.1.3   Serials

Serials are generally accepted as being the most valuable information resources to researchers and academics, especially to those in all fields other than the humanities. As so many journals are now available in full-text aggregated services and taking into account the high prices of both print and electronic journals, collection developers must be very circumspect in decisions they make about subscriptions to print journals.
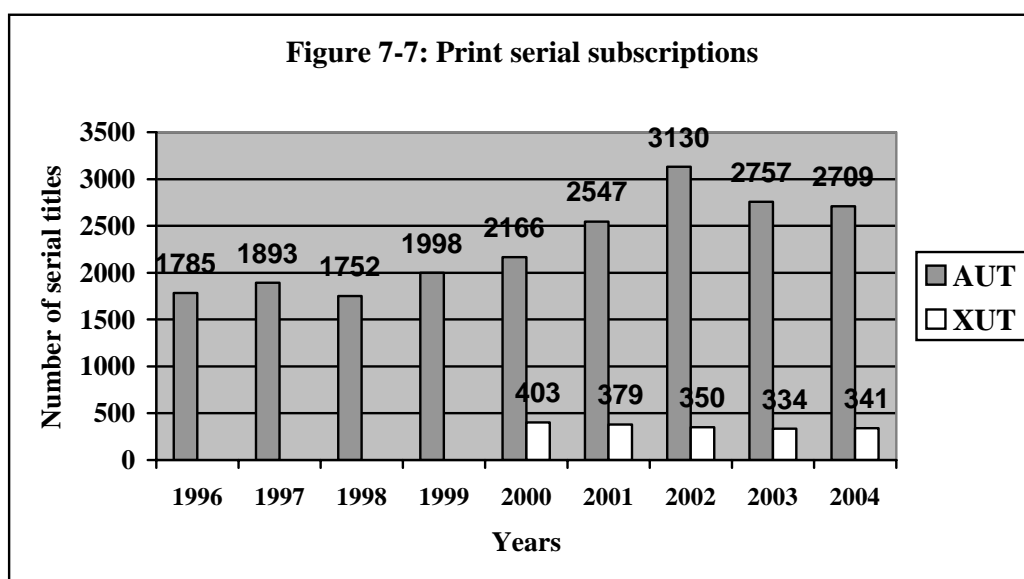

Figure 7-7: Print serial subscriptions

Figure 7-7 shows how the total number of subscriptions to print serial titles has grown since AIT began offering degree courses and later became a university of technology. The increase in titles is particularly marked after 2000, when the institute became a university. What is important is that this period also saw a large increase in the number of titles accessed through online databases. Academics and researchers like to browse through print journals to find information or to discover new avenues for research, and the growth in print journal subscriptions shows a commitment on the part of AUT to meet the needs of their researchers and academics.

In 2003, the number of journal subscriptions peaked at 3,130 titles. In this year, additional funding was provided to purchase available back issues of currently held print serials (Dewe 2003:5). This provided continuous runs of some of the newer serial subscriptions. After 2003, titles were dropped again, presumably to avoid duplication of titles available electronically through aggregated services. This is understandable especially in view of the costs involved in subscribing to these full-text databases and to the escalating price of journal subscriptions. However, the number of print journal subscriptions remains below that of most of the universities benchmarked in section 6.2.2.1 of this thesis. Continuing to deselect print journal titles instead of extending this part of the collection would lead to an eventual erosion of the value of the serial collection at AUT. It would be preferable for AUT to benchmark with universities of the same size in New Zealand and aim to reach the same level of print journal subscriptions as those of the peer institutions, as recommended in the 2000 ACRL standard for college and research libraries.

7.7.1.4   *Electronic resources*

AIT began in 1981 to use overseas databases to find bibliographic information. This was done through introducing CD-ROM systems in the library (Blanchard 1994:7). At that time the cost was significantly less when using CD-ROM than when using online databases. From the outset, the library bore the costs (Blanchard 1994:20). By 1996, there were twenty-three CD-ROM databases which formed a very significant part of the information retrieval tools in the Institute (Blanchard 1996:15). Because CD-ROM is only of value if the disks are readily available, this entailed significant expenditure on equipment and on the Institute's network (Blanchard 1996:17). In this same year, the library gained access to the Internet and access to a number of online databases was through this channel (Blanchard 1996:15).

As technology developed, so AIT acquired an increasing number and array of electronic information resources. In 1997 they subscribed to 23 CD-ROM databases. In addition, they had three subscriptions to online databases (Saw 1997:19). In 1998, the number of CD-ROM products available through the library increased to 34 as well as 11 online services (Saw 1998:24). This meant that there was now access to 1,418 full-text serial titles in electronic format. As online services became more popular in

1999, so these services began to overtake the number of CD-ROM databases in the library. In that year, the number of CD-ROM subscriptions dropped to 28, whilst the number of online databases rose to 41 (Saw 1999:24). These subscriptions meant that there was now access to 2,679 full-text electronic serial titles. This was an increase of 89% in one year. These new additions to the library's collection meant that the full-text serial titles now covered most areas that were relevant to AIT programmes and courses. Most of the new titles became available through new subscriptions to *Health Source* and *ProQuest Direct*. It is important to remember that in that same year there was an increase of 14% in the number of print journal subscriptions (Saw 1999:28).

A large number of new online databases were added to the collection in 2000 – the year in which the Institute became a University of Technology. These include *Emerald Intelligence*, *EBSCOHost*, *NewzText*, *Brookers New Zealand Statutes and Statutory Regulations* and *Nursing Fulltext* (Saw 2000:13). Users had become used to electronic information resources by this time, and when some staff members were asked about their use of the library, several were very positive about the availability of full-text e-jourmals, most of which were made available through aggregated services. A staff member from the Department of Tourism thought that the development of electronic resources was particularly useful for research in his field (Saw 2000:8). A doctoral student said that being able to access full-text articles from remote venues was a great advantage for her studies (Saw 2000:9). These new databases increased the number of e-journal titles in stock to 5238 – a 97% increase. The following year, subscriptions to full-text serial titles increased by 1962 to 7,200 titles (Saw 2001:10). By the end of 2002, the library provided access to 8,396 full-text journal titles (Dewe 2002:4). This increase in access to online databases was largely attributable to the fact that the library continued to emphasise the acquisition of research-based electronic resources. New subscriptions included *IEEE*, *APAFT, Web of Knowledge* and modules of *Science Direct* (Dewe 2002:6).

Another new format had been developing in the publishing industry, namely the Electronic book, known as the e-book. In 2002 AUT acquired its first e-books in the form of a subset of computing titles they purchased from Safari (Dewe 2002:4). This amounted to a total of 108 e-books.

In 2003 there was once again a large increase in the number of full-text e-journal titles available through the AUT Library. In this year the number of such titles increased to 17,322 (Dewe 2003:10). This constituted an increase of 106%. This meant that in 2003 there were six times more e-journal titles available than print serial titles. Additional funding was given in this year to acquire retrospective information resources. The acquisitions of digitised back files of research materials was effected through acquiring *JSTOR* (Dewe 2003:7). This initiative to provide back files to electronic resources was admirable as the lack of back files of e-journals is often cited as a limiting factor in using these resources. Many e-journals only provide access to a few years of back issues, thus denying researchers access to older issues.

It is becoming policy in Australasia that libraries do not have duplicate print and electronic subscriptions for serial titles. This decision is based mainly on budgetary constraints and also on storage facilities. The lack of a large collection of print serials has allowed AUT Library to move forward quickly with the adoption of e-resources. According to Jenks (2005e:1), AUT is known as a University with a difference. The Library claims that having flexibility with regard to the print serials collection makes them unique in that other more established libraries have to deal with integrating their print serial collection with a collection of e-journals.

The collection of e-books was also expanded in 2003. At the end of that year, the library subscribed to 700 e-books.

In 2004, additional databases were acquired, and access was provided to 38,476 full-text e-journals. The number of e-books rose to 2,500. These were acquired from NetLibrary, Safari and the Oxford Collection (Jenks 2005a:3).

The increase in the number of electronic information resources available in the AUT Library is depicted in figure 7-8. There has been an increase of 35,797 e-journal titles since AUT became a university of technology at the beginning of 2000 (Jenks 2005a:3). These titles are provided through approximately 150 databases.

In addition to these databases and e-books, the AUT Library provides access to the Internet for their users. If the library has both a print and a digital copy of a resource, the link which will open up the electronic version is provided in their catalogue.

Figure 7-8: E-resources
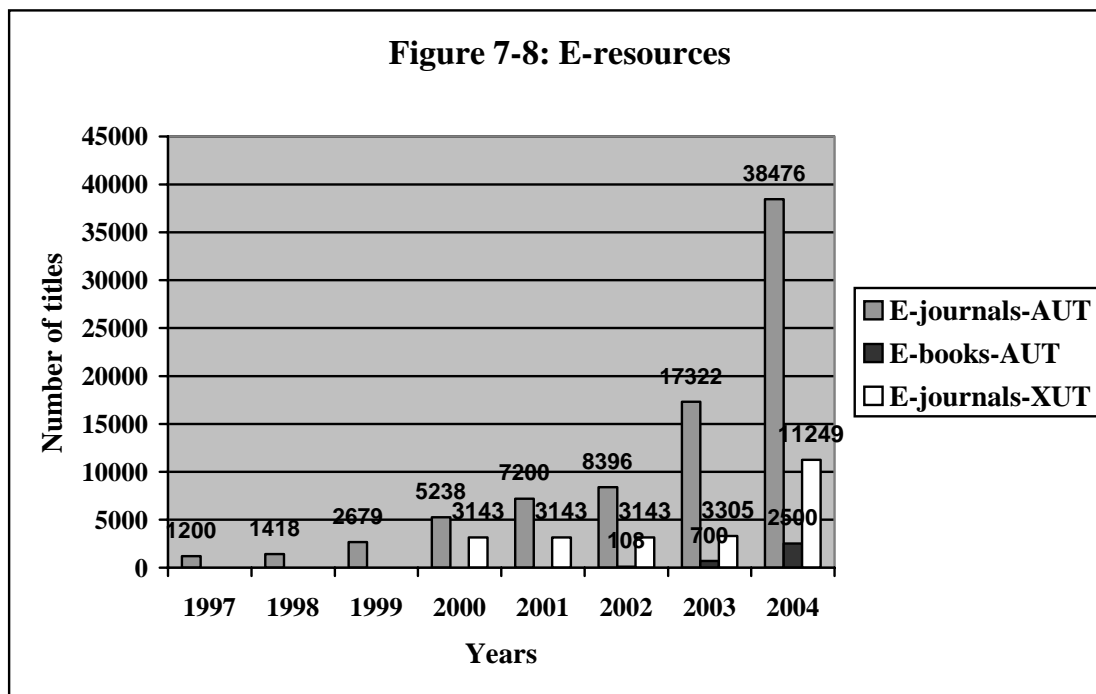
Portals to interesting sites on the Internet have been found useful to scholars and researchers but AUT Library has not yet developed such portals on their website (Jenks 2005a:4). If such portals were available, more focussed access to relevant websites would be provided to the users. This researcher would suggest that this be done to make the Internet a more valuable part of the electronic collection of information resources.

The rapid growth in the library's print collection, as well as the need for computer workstations to access electronic resources has meant that the library became too small for a university of technology. In 1994 there was seating for only 435 users – which meant there was one seat for every 17 registered students (Blanchard 1994:17). Within two years, student numbers had grown to such an extent that there was seating for one in 22 registered students (Blanchard 1996:10). This led to AUT building a new library building. The completion of Stage one of the new Learning Centre Building, which has a seating capacity of 1000, was in November 2000. The

subsequent completion of the Centre in 2001 made it possible to house all the library resources, allows for further growth and includes a postgraduate Research Centre, Information Literacy Laboratory and many other facilities (Saw 2001:2). There was now room for additional workstations which increase access points to the library's electronic resources. It is one thing to subscribe to many electronic resources but if the majority of the users lack access to equipment wherewith the information can be retrieved, the expense incurred by such subscriptions is wasted.

As the growth in e-resources is accompanied with a growth in traditional print resources in AUT Library, it is indisputable that the library is making every effort to upgrade their collection to be more in line with that of other medium-sized universities. In addition, an effort has been made to ensure that important information resources published in the past are added to the collection. This is very important in the light of the finding in sections 4.7.2 and 5.3.6 of this study that researchers require retrospective material for their activities. The institution then went further by providing a new Learning Centre to replace their old library building, and in addition they upgraded the library building and facilities at the other branch library at Akoranga.

The development in the collection reflects the developments in information resources, and it would seem that the institution has done what was possible to reflect their changing status from polytechnic to university. Library management and the management of AUT itself have accepted the costly and complex challenge of becoming a university library. They realise that there are still shortcomings in the collection when AUT is compared to similar universities, but appear to be committed to bridging the gap from polytechnic to university. The resolve to continue building up the traditional collection as well as electronic resources can be seen clearly in the growth in all the most prevalent information formats available to them. The collection at AUT Library is at present a typical hybrid collection as reflected in section 6.4.2 of this thesis.

7.7.2   Development of the library collection at XUT

Due to budgetary restrictions at X Technikon and XUT, the paradigm shift from
technikon to university of technology is not as clearly visible in the collection
development practices at XUT. The exact number of serial subscriptions and
monographic volumes in the library's stock before the institution was allowed to
confer degrees is not available, but the stock of books stood at approximately 43,000
volumes at that time and there were around 500 current journal subscriptions. The
rate of growth in all the formats included in the collection will be shown to be far
below that of AUT Library.

7.7.2.1   Books

In figure 7-4, the growth in the number of books in stock at AUT and XUT is
compared. The growth in book stock is considerable at AUT, but is scarcely
perceptible at XUT. From 1996 to 2000 (the years leading up to and including
becoming a university of technology), AIT's book stock increased by 53%, partially
due to a decision taken to build up this collection to be comparable to that of
universities of equal size. In the X Technikon library, from 2000 to 2004 (also the
years leading up to and including their becoming a university of technology), the book
collection increased by only 14% from 45,872 to 52,170 volumes. Also, the increase
at AUT was on a larger basic stock of books.

In figure 7-5, the number of books added to the AUT and XUT libraries is compared.
In addition, this chart shows that whilst the number of books added to the AUT
collection increased considerably from 1996 to 2000 by 33,448 items, at XUT, 9,742
items were added from 2000 to 2004. During the five years before and including the
year in which the institutions became universities of technology, AUT added 243%
more books to their collection than did XUT. After becoming a university of
technology, AUT embarked on a path of building their collection of books into that of
a university. Whilst XUT is a few years behind AUT in their upgrading to a
university of technology, there is no evidence in their collection development policy
that they have any intention of improving their collection of traditional media in line

with those of universities of similar size and orientation. This is contrary to all of the ACRL standards published to date.

The lack of development in this part of XUT's collections should be seen in a serious light because of the esteem in which monographs are still held by academics and researchers. These items are not usually included in aggregated services and these sources of information still contain much of the universe of knowledge to which researchers require access. According to Liu's (2001) study, an inadequate print collection is linked with an inferior academic institution and will over the course of time discourage quality scholars and researchers from remaining at or joining the staff of the institution. Unless the institution embarks on a campaign to bring the monographic collection in line with accepted standards and norms for medium-sized universities, the collection will become increasingly inadequate to meet the information needs of researchers and academics. This would detract from the credibility of XUT as a university of technology.

7.7.2.2   Non-book materials

As another traditional format, the collection of audiovisual media has not grown much in the year preceding XUT's changed status to a university of technology. In the five years preceding and including AUT's becoming a university (1996-2000), 2,240 non-book items, which include mainly videocassettes, were added to the library's collection. In the corresponding period of 2000 to 2004 at XUT, only 316 such items were added to the collection. It can be seen in figure 7-6 that the collecting of information resources in this format at AUT has not diminished over the years, as it has at XUT. Although resources in this format are mainly used for teaching purposes, there is a significant difference in the collecting of non-book items at the two institutions. They remain of interest to academics as teaching aids and as such the collection of such material remains important in a university of technology.

7.7.2.3   Serials

Of particular concern in the collection development practices at XUT is the steady decline in the number of print journal subscriptions in the five years leading up to

their becoming a university of technology. In 2000 they subscribed to only 403 titles, which is considerably less than the recommendations contained in section 6.2.2 of this study. Print journals are the preferred medium for the majority of scholars and as there are disadvantages to relying solely on electronic journals as sources of information, any university library must subscribe to all the important journals in the subject areas taught at that institution. If the serial collection were to be compared to those recommended in subject bibliographies, a more accurate reflection of the inadequacy of the collection at XUT could be shown.

Of further concern is that after 2000, the number of titles subscribed to by XUT showed a steady decline. There is no evidence in their collection development policy that the decline in their collection of serials is going to cease in the future. In the years 2000 to 2004, there was a 15% decrease in the number of titles to which XUT subscribes. In comparison, during the five years leading up to AUT becoming a university of technology, the number of serial subscriptions increased by 21%. After this time, serial subscriptions increased by another 25%, showing a desire to provide a collection of serials that will meet the information needs of researchers at a university.

Although many serial titles are now presented in the form of e-journals in datasets, researchers have found that print copies are still considered to be the most valuable information resources to academics and researchers. Due to the need for researchers and scholars to browse through current journals, this researcher considers the serial collection at XUT to be substandard. There simply is not the range of journals needed by serious scholars and researchers to foster advanced study and research at XUT.

7.7.2.4   Electronic resources

Historically, AUT and XUT followed the same patterns of acquisitions of electronic resources. Initially in the second half of the 1990s XUT subscribed to a number of CD-ROM databases. These were mainly bibliographic databases containing metadata. Access to electronic resources was provided on a few networked computers in the library and they could also be accessed by technikon staff in their own offices.

As online databases became more accessible and subsequent to some deals negotiated by GAELIC, the consortium of academic libraries in Gauteng, XUT increased their serial collection substantially by subscribing to *EBSCOHost* and *Emerald* at the turn of the century. Through these databases, the library could provide access to full-text articles from approximately 3,120 journals. In addition, *SwetsWise* offered full-text access to 23 of the journals to which the library subscribed in print format. This added to the pool of e-journals to which users had access. Through IP recognition protocols, staff at the technikon could access any of these databases from their desktops, at other remote sites and in the library itself (Q 2005a:2).

In 2003, the bibliographic database *INSPEC* was added. This database provides citation references to approximately 3,000 science and technology journals. In addition, *SAeJournals* was added which provides full-text access to 131 South African scholarly journals. As happened with AUT, the beginning of the 21st century saw the shift from CD-ROM databases to online internet-based databases.

As AUT approached the year in which it gained the status of a university of technology, the number of e-journals to which it had access increased each year. This increase was not seen at XUT. This can be seen in figure 7-8.

In the year in which XUT became a university of technology, however, a dramatic increase is seen in the number of full-text e-journals available to academics, researchers and other library users. In 2004, this number rose to 11,249 titles. This was made possible through subscribing to several new full-text databases. These included, *Springer/Kluwer*, *ACS, ScienceDirect* and the *Compendex* module of *Engineering Village 2* (Q 2005b:2). This step is positive and goes some way to compensating for the poor state of the collection of traditional media in the library. As a result of these new subscriptions, the number of e-journals available has risen by 258% in the five years leading up to the institution becoming a university of technology. This growth is considerable and the new titles will benefit scholars in science and technology in particular. If this is the beginning of a trend to increase access to electronic resources, this part of the library's collection could grow into one that is more representative of a university of technology, instead of a technikon.

In addition to these full-text databases, in 2004 the XUT Library also acquired 133 CD-ROMs (Q 2005b:2). These are for loan to library users and are not networked for users in the library or at remote sites. Together with other CD-ROMs in stock, this part of the collection now stands at 2,499 items (Q 2005a:2). There are also a number of bibliographic databases to which the library subscribes to help users find citations to relevant information. Another electronic resource available to library users is portals which provide links to useful online documents and websites. These were created by subject librarians to supplement the library's stock of information resources (Q 2005a:2).

The XUT library has not yet subscribed to any e-books to supplement their small collection of monographs.

According to a survey carried out in 2002 (Van Zijl 2002:6), the X Technikon library was considered overfull and too noisy by X Technikon staff. Many did not visit the library readily, preferring to access databases and the OPAC remotely. Since this time, the library has been split into two branch libraries. There are now 85 workstations available to users at the main campus. Many of these are in the "Postgraduate Centre" and the "Electronic Classroom". There are also 38 workstations at the branch library (Q 2005a:2). This is a considerable increase from previous years and has increased access to electronic journals substantially.

In spite of the increase in e-journals in 2004, the collection is still far below the international and national standards for research and university libraries. Unless the institution addresses this as a matter of urgency, it is doubtful whether the institution as a whole will be able to bridge the gap between a technikon and a university of technology. Should the library continue to lag behind in comparison to South African university libraries, research and teaching programmes will fail to adhere to university standards and fail to attract recognised scholars as lecturers and researchers.

7.8   RESOURCE SHARING PRACTICES AND POLICIES

No academic or institute library can hold every information resource published in its fields of scholarship. Firstly this would be too costly and would place too high a

demand on the shelving capacity of a library, and secondly it is all but impossible to keep track of every item published worldwide. For these reasons, academic libraries rely heavily on the sharing of resources to meet the information needs of their researchers. AUT and XUT are both involved in the sharing of information resources.

7.8.1 Collaborative collection development through consortia

In 1998 New Zealand polytechnic libraries, including AIT, entered into a consortial agreement with the suppliers of *ProQuest 5000* for reduced rates for this aggregated database which provided access to over 2,200 full-text electronic journal titles (Saw 1998:5). One of AIT's goals in its strategic plan that year was to enter into national and regional agreements in order to increase access to information. They also aimed to achieve "collaboration of titles" within the consortium (Saw 1998:33). In 1999 the consortium of Polytechnic Libraries negotiated a further consortium purchase of the *ProQuest Direct* databases and *General Science* was added to the licence/subscription in 1999 (Saw 1999:2). Furthermore, AIT and the University of Auckland formed an alliance whereby AIT staff and postgraduate students could use materials from the University of Auckland from 2000 for a fee (Saw 1999:3). In 2000 AIT was given university status, and the AUT library became a member of CONZUL (Council of New Zealand University Libraries). Through CONZUL they participated in a number of database purchasing consortial deals (Saw 2000:1).

In 2001, CONZUL embarked on a project known as CONZULAcq, which is a consortium for monograph purchases of North American publications through one supplier. The increased buying power increases the discount rates for each of the libraries in the consortium (Saw 2001:3). This project is an attempt at collaborative collection development and has been operational ever since its inception. In 2003 CONZULAcq collaborated once again to select UK vendors and in this way spread their collaborative acquisitions project to include publications from the UK and Europe (Dewe 2003:6).

AUT joined the CAUL (Council for Australian University Libraries) Electronic Information Resources Committee (CEIRC) in 2000 which arranges database trials and facilitates consortial purchasing of digital resources (Dewe 2002:4). They

participate in CONZULSys (a group of four universities including AUT, Otago, Victoria and Waikato) constituted for consortial purchasing and for operation of library systems (Dewe 2002:5). In addition, they participated in the University Library Aotearoa New Zealand (ULANZ), which is another CONZUL initiative, in 2004. This is a national reciprocal borrowing scheme for staff and students of participating universities. AUT Library is involved in the academic library consortia in their region and have already benefited from the advantages of the increased purchasing power of these bodies. This applies to acquisition of both print and electronic resources.

AUT Library is also a member of EPIC (which is the name of the consortium, not an acronym). This is a national consortium for electronic resources. The lead agency for this project is the national Library of New Zealand. At present EPIC is delivering access to two datasets, the *EBSCO Masterfile* product and a range of Thomson and Gale databases including *Infotrac*.

Similarly, XUT has joined the Gauteng and Environs Library and Information Consortium (GAELIC) and have enjoyed the benefits of such membership. The first two consortial deals they benefited from related to subscriptions to *Emerald* and *EBSCOHost*. In the case of *Emerald,* GAELIC libraries undertook not to cancel their subscriptions to *MCB* publications and in exchange, each member has access to all the titles subscribed to by the consortial libraries. Subsequently XUT has been able to participate in more of the consortial database subscription agreements and have in this way gained access to these databases at reduced rates. GAELIC has not yet become involved with collaborative collection development. Thus, member libraries cannot benefit from the collective buying power of all the academic libraries in the consortium. Initially, GAELIC looked into collaborating in the acquisition of print journals and work was done on a consortial collection development policy, but this has not yet come into effect. There is an arrangement within GAELIC that academics and postgraduate students from member institutions may register as a user of any of the other member libraries. This is similar to the arrangement between AUT and the University of Auckland. The GAELIC arrangement is broader, however, as any of the GAELIC libraries may be used by academics and researchers in the other libraries.

This way of sharing resources has extended the pool of information resources held by these academic libraries.

Both universities of technology have become involved in regional consortia and have profited from such membership. New Zealand appears to have developed further than South Africa in putting the consortia to work in collaborative collection development and in consortial purchasing of monographs – both of which have not come about in South Africa.

7.8.2   Interlending of library material

Even before becoming a university of technology, the need to use interlibrary loans (ILL) and document delivery services to fill major gaps in the library's collection was acknowledged by AUT Library. In 1996 the number of ILL loans was growing at a rate of about 2,000 transactions per year (Blanchard 1996:8).

After becoming a university of technology, it became apparent that although an increase in digital resources helped with the growing research activity at AUT, the library had not kept pace with the demand for material. This was shown by the 32% increase in interloans (Dewe 2002:6). The number of ILL requests was approximately 5000 per annum at that time (Dewe 2002:9). The ILL budget was growing out of proportion to other spending in the library and the Finance Director decided to transfer the ILL and document delivery costs to the Faculties. This has meant that undergraduates are not normally given access to ILL unless their Faculty allows this, and postgraduates do have such access. The number of ILLs per student varies from faculty to faculty, according to decisions made in the faculty concerned, as follows:

- Applied Humanities (no limit)
- Business (5 per student)
- Health and Environmental Sciences (limit of 20 per student)
- Design and Creative Technologies (limit of 20 per student).

The Library still carries out the administration work for the interlibrary loans and document delivery (Jenks 2005b:3).

At XUT, the number of ILLs have also risen and the call for interloans from foreign countries has risen greatly, especially in the engineering fields of study. The library continues to carry the ILL and document delivery costs, but when the costs are high, the researcher concerned must carry the costs out of research grant funding. The library administers all interlending and document delivery activities.

Due to the fact that the print collection is small, it is essential to provide generous funding for interloans to supplement the library's stock. An increase in full-text aggregated services has reduced the demand for interlibrary loans considerably, but much of the material required is not available through the databases and monographic material is not included. In spite of these shortcomings in e-journal databases, no change has been made in the policy surrounding interlending and document delivery services now that the institution is a university of technology. The reason given for this is that access to the full-text databases is enough to fulfil most of the research needs at the institution (Q 2005b:4). Although AUT subscribes to many more aggregated services than does XUT, they have found these to be unable to meet the needs of their researchers. They found that ILL requests increased so dramatically after becoming a university of technology that they had to shift the financial responsibility for this to the faculties themselves. In the light of this experience, it is possible that XUT will also have to increase their funding for ILL and document delivery as the institution moves from a technikon to a university of technology. At present, the Directorate of Research provides additional funding when required to supplement the library's budget for ILL and in particular for international ILL, the costs of which can be very high (Q 2005a:3).

As is the case at AUT, XUT provides ILL services for postgraduate students and XUT staff, but not for undergraduate students.

It is good that both institutions acknowledge the need to supplement their library stock by providing adequate access to interlending and document delivery services. The fact that neither institution provides such services to undergraduate students is a

cause for concern, however, as their stock of books and serials (especially that of XUT Library) is still inadequate to meet the study and research needs of a university. Not all study and research material is available through online and CD-ROM databases.

7.9   COLLECTION EVALUATION

In 1996, AIT made a decision to scrutinise the library collection closely and withdraw older material. This was to be done using the Pacific North West Conspectus System (Blanchard 1996:2). One of the library's objectives for that year was to use the conspectus software to analyse the library collection (Blanchard 1996:42). This exercise was however never completed.

Another way in which the AIT collection was evaluated was by participating in a comparative study of polytechnic library collections carried out by an expert (Blanchard 1996:2). The findings of this evaluation resulted in the library setting new objectives relating to collection development.

The estimated current level of collection and the collection goal is reflected in AUT's Information Resources Policy and serves as a guide for collection development and management. The various subject fields show these levels of collection activity and also which courses are supported by that subject field. There are also general comments about collection strengths and weakness as well as exclusions and retention guidelines which will be borne in mind when collecting material in each field.

AUT Library also uses statistics of interlending and document delivery requests to evaluate its collection. If articles from a particular journal are requested repeatedly or if monographs are requested several times, this information is passed on to the bibliographers who decide whether the requested items should be procured for the library.

The XUT Collection Development Policy contains guidelines for using the ALA Conspectus to evaluate the collection, but this process has not yet been implemented. This means that no formal exercise has been undertaken in the past 10 years to

evaluate the library collection, either prior to becoming entitled to confer degrees, or after becoming a university of technology.

Certec (Certification Council for Technikon Education) and HEQC evaluators always report on the state and adequacy of the print and electronic collections, but even the evaluations and recommendations of these bodies have not been implemented due to the low budgets supplied for print media in particular. Interlending requests are also not used for collection development as information about frequently requested journals and books is not passed on to the library's bibliographers.

Due to the considerable changes through which XUT has gone, this researcher considers it essential that the collection be evaluated and that the outcome of the evaluation become the guideline for all collection development and management in future. It is also essential that HEQC recommendations are followed up regarding shortfalls in the collection and that interlending information be forwarded to selectors of library materials as a matter of course.

AUT Library's plans to evaluate their collection are positive. However the fact that a full conspectus has never been conducted at that institution should be remedied. It is only through regular evaluation of the library's collection that a clear picture of the collection's efficacy can be seen. In this way, the stock can be kept in line with changing needs, courses and trends in that institution. AUT's willingness to be compared with peer institutions is in keeping with the latest ACRL standards, and will keep library management informed of the relative strength and weakness of AUT Library's collection. All of these measures are valuable tools when negotiating for funding and when justifying expenditure on the library as a valuable part of AUT.

7.10   SELECTORS AND COLLECTION DEVELOPERS

In 1997, AIT's Institute Librarian stated in her annual report (Saw 1997:11):

> Systematic input from academic and teaching staff needs to be further
> explored so that the growth of the collection is in keeping with the
> development of the teaching and research programmes of the Institute.

The involvement of academics has thus been important to AUT for some time, but this has always been done in conjunction with input and approval from the library staff. The principles and responsibilities for resource selection are stated in the library's *Information Resources Policy* (AUT 2004:4).

At present, selection of library information resources at AUT is carried out by the Liaison Librarians working in liaison with academic staff. Most academic departments have library representatives who work within their departments to recommend resources for the Library to purchase. Furthermore, in some instances, AUT uses approval plans with their major vendors. Library staff in consultation with academics at AUT have set up profiles with these vendors who then use their electronic databases to pre-select some items by publisher output in various subject areas.

Requests for monographic items (books, audio and video, CDs & DVDs, kits, maps and reference items) are forwarded from the Liaison Librarians for approval by various people, depending on the cost of the item. The final order is approved by the following people:

- Under $200 - Team Leaders in Bibliographic Services of Information & Education Services
- $200 - $5000 - Associate University Librarian
- $5000 - $30,000 - the University Librarian
- Over $300,000 - the PVC Research.

Serial orders move from Liaison Librarians to the Print Serials Sub-Committee which meets annually. Once approved by the Sub-Committee, orders move in the same way as above for final approval.

Electronic Resources are evaluated by academics during free trial periods. Liaison Librarians collate the feedback from academics and feed this information into the so-called Electronic Resources Priority list - this is for e-journals (subscribed or free), e-

books, and aggregated services (datasets). The list is presented to the Library Executive each quarter and decisions to purchase are made. Final approval for these orders follow the same path as that for other formats (Jenks 2005a:2).

The selection processes and responsibilities at XUT are included in their Collection Development Policy. Practices regarding selection are similar to those of AUT.

At XUT, any registered library user may recommend material for purchase. Subject librarians for the various subject fields carry the major responsibility for collection development in their subject fields. Throughout the year faculty members or subject librarians select from publishers' catalogues the material they would like to purchase. All recommendations from faculty are channelled to the relevant subject librarians who evaluate the requests in relation to the collection and according to the selection criteria used. Material can also be selected from visits to publishers' warehouses and book exhibitions.

When a monographic item (books and audiovisual material) costs more than the equivalent of R5,000, approval must be given for the purchase by library management.

Requests for any new periodical subscription must be submitted for consideration by a panel of selectors including library management and the relevant subject librarian. Qualified librarians are also responsible for the selection of electronic media. Such requests are also submitted to the selection panel for approval. In most instances, selection of electronic resources is preceded by a free trial period during which academics and subject librarians can evaluate the material (Van Zijl 2005:8).

In both institutions, responsibility for selection of library material and the procedures followed are in keeping with the recommendations given in section 2.3.1 of this thesis. The fact that at both institutions there is close liaison between faculty and librarians in the selection of material, means that faculty (the real subject experts) and librarians (who see the more global picture of the library's collection and are the experts on the library's collection of information resources) work together to ensure that the collection develops in line with advancements in each subject field.

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7.11   JUST-IN-CASE OR JUST-IN-TIME MODEL OF COLLECTION DEVELOPMENT

There are no policies at either AUT or XUT relating to adopting either the Just-In-Case or the Just-In-Time model of collection development.

AUT claims to be using both models, but their practices lean towards the Just-In-Case model. They are trying to develop a collection to meet teaching and research needs which means that they collect items that users might need in the future. The approval plans operating with two of their vendors are based on profiles of the subjects taught at AUT. Information resources matching these profiles are automatically sent to the library. This is typical of the Just-In-Case model of collection development.

All of the datasets (aggregated services) are the electronic equivalent of Just-in-Case collection development. The library subscribes to a number of preselected e-journals which are likely to satisfy some of the information needs of library users.

When necessary, however, AUT purchases items Just-In-Time. This happens particularly when new courses are started at AUT for which they have very few resources (Jenks 2005b:2).

At XUT, practices also lean towards the Just-in-Case model. Most of the budget is spent on collection library material that might be required to meet research and teaching needs. However, when there is a specific need at any time, this item is procured to meet that need. This is what happens in the Just-in-Time model (Q 2005b:3). Selectors of library material (usually academics) recommend titles throughout the year either for a specific requirement or for the general development of the collection in a certain field.

As is the case with Just-in-Case collections many of the items in the collection have never been loaned to anyone. This information was gained by entering a query to this effect through the library's integrated system, Innopac. Bearing in mind that researchers find that it is valuable to browse through the library's stacks and journals

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to keep up with developments in their fields and also to discover new avenues for future research, the trend of both institutions to follow the Just-in-Case model of collection development is possibly the most valuable practice in a new university of technology. However, due to the proliferation of formats which must now be considered in library collections, it would be valuable to include a policy in this regard in the library's collection development policies. This could be used as a tool on which to base decisions regarding the selection of material. A decision to follow mainly the Just-in-Case model could also serve as a motivation to enter into a profile-based approval plan with vendors.

7.12   ACCESS OR OWNERSHIP

As discussed in section 2.3.6.1 of this thesis, researchers and academics need immediate access to a core collection of important information resources in their field of study. In addition, they need easy and quick access to any information available elsewhere. This could be an electronic information resource or a document delivery or interlending service. With the vast quantity of information being published every year, it is impossible to own a comprehensive collection of resources in any field of study. It seems that all academic libraries in the 21st century could be classified as hybrid collections of both traditional print media and electronic information resources.

At AUT, there is no formal policy regarding preferences for owning or having access to information. The library's point of departure on this issue is that the library cannot simply purchase a print research library to make up for past inadequacies in their collection. Instead the library has chosen to purchase back issues of full text e-journals. Such resources include *JSTOR*, back files for *ScienceDirect*, perpetual rights to CSA databases, and so on. In 2005 the library set some funding aside for the purchase of electronic back files. In 2004 the library spent $791,000 on back files to help build up the electronic collections (Jenks 2005b:2).

Efforts to improve access to the library's electronic resources have been in operation for several years. In 1996 access was improved by redesigning the library's website, providing better access to the library's collection through OPACs as well as easier

access to electronic databases and resources (Saw 1997:5). The Institute Librarian at that time predicted (Saw 1998:31):

> The next step for a library of the future will be a hybrid institute that contains both digital and book collections.

One of the stated library objectives in 1998 was to make the library a gateway for access to information by having fewer print serial titles, opting instead for electronic access (Saw 1998:33).

In 1999, remote access to the library's electronic resources became possible allowing desktop access to e-resources (Saw 1999:4). In this same year, there was an 89% increase in access to electronic full-text serial titles. This ties in with the need of academics to be able to access information resources as quickly and easily as possible without having to visit the library. This trend continued as can be seen in figure 7-8. Access to electronic resources became one of the main foci in collection development at AUT. More than 70% of serial titles received were in electronic format by 2002 (Dewe 2002:4). In addition to providing the online resources, the library had to provide more workstations so that users could access the resources from the library easily. To this end, in 2001, 72 student computers were upgraded to flat screen monitors and a Postgraduate Research Centre was created to provide easier access to postgraduate students and researchers in a comfortable environment (Saw 2001:4).

Access was facilitated further through the implementation of EZProxy for off-campus access to electronic resources. Another innovation was the implementation of Serials Solutions, which provides an alphabetical list of the full-text e-journals to which the library provides access. This obviates the need to search multiple databases to locate specific journals (Dewe 2002:4).

In spite of a resolve to move towards increasing electronic access to journals, the library has continued to upgrade their print collection through ownership of information resources. The balance struck at AUT appears to be working adequately. They acknowledge that users need immediate access to information through owning a collection of information resources in enough breadth and depth to meet teaching,

research and learning needs of their researchers and other scholars. In addition they have integrated a large number of electronic resources which fill the gaps in the collection and make it possible for scholars to access a large amount of information from their desktops. The desired levels of ownership and access should be spelt out in the library's Information Resources Policy in order to justify decisions made.

XUT has not developed a formal policy dealing with choices between access to, or ownership of, information resources, although the lack of funding on print resources reveals an informal decision to opt for access to information rather than ownership. The collection of print serials and books at XUT is becoming increasingly outdated and ineffective as a research collection. To develop these parts of the collection in line with that of research or university libraries will be extremely expensive. The increased expenditure on e-resources means that researchers and academics now have access to a larger portion of the universe of knowledge in their fields and would meet many of the information needs of scholars at the institution.

However, these aggregated services and other databases cover only serial literature. Access to monographic literature, which is also required by scholars, is very limited. The potential danger of this situation is that research at XUT will be based only on the limited e-journals to which the library subscribes, to the exclusion of the vast amount of information available in print and even audiovisual format. Were this to occur, the research output of the institution would be of an inferior quality which is not worthy of a university of technology. In addition, this lack of access to monographic literature could decrease the amount of research being done, especially in the humanities. It could also impact negatively on XUT's research output. Articles which are not thoroughly researched are less likely to be accepted by accredited journals and research for books often requires access to classic and fundamental sources. Another possible consequence of the small book collection could be a decrease in the output of research degrees such as Master's and Doctoral degrees. This could impact negatively on funding for the university as today research output contributes considerably to the amount of funding received from government.

Access to electronic media has been improved through the workstations provided in the libraries. In addition, ILL and document delivery services are provided for staff and postgraduate students at XUT.

However, this researcher finds that the collection of electronic resources, albeit growing, is inadequate to constitute the breadth and depth of collection required to meet the information needs of academics and researchers. As this access to information is not counterbalanced by a sound collection of traditional media, the gaps in the electronic collection cannot be filled by print media owned by the library. There must be an adequate collection of both types of information to constitute a collection of a university of technology.

7.13   FUTURE PLANS FOR COLLECTION DEVELOPMENT

In these case studies, it is apparent that the newly constituted universities of technology have a considerable task in changing their libraries from polytechnic / technikon libraries into libraries that will support research and teaching programmes at a university of technology. Both institutions' libraries are integrating new technology as it develops and are struggling continuously to find the kind of balance that meets the needs of their users. This is a costly process that requires the full support of the parent institutions.

The AUT Library plans to continue its project to extend the library's collection of traditional print media. In 2004 an amount of NZ$400,000 was set aside for "collection development". This amount was not allocated to the faculties and allows the library to buy back copies of older print titles in areas that new and established courses are taught in. The same amount has been set aside for 2005 (Jenks 2005b:2).

The AUT Library will continue to use a portion of the budget for resources supporting new courses or courses that have very expensive books (mainly science and health), and to ensure that the Library has a balanced reference collection.

AUT continues to develop courses that fit the needs of commerce and industry. The library will continue to acquire resources that support the new courses that are developed in future (Jenks 2005b:2).

In addition, they will continue to develop their collection of books to reach the goal of 200,000 volumes. Whether or not this is achievable by 2008 as planned is not possible to predict, but considerable strides have already been made. They will also continue to ensure that they have an adequate supply of print journals and non-book material, trying not to duplicate the print journal titles with those available online in the journal aggregation services. Particular attention will be given to keeping up with developments in the field of electronic information resources, and providing access to a collection of electronic resources that meets the standard of similar established universities.

In the XUT Library, it is envisaged to decrease their collection of print journals in favour of electronic journals (Q 2005b:3). In addition they are planning to digitise some of their library material to make it available to users online. They plan to start by digitising lecturers' notes and materials that are not copyrighted. Eventually they hope to provide digitised copies of overused chapters of books or heavily used books in their entirety so that these resources can be available to users from remote locations at any hour (Q 2005b:3).

There are no plans to extend their collections of traditional media in future, or even to acquire e-books. The latter would seem to be preferable to the library actually digitising some of their print material.

It is good that XUT plans to build on their collection of e-journals, but replacing the few print journal subscriptions with electronic journals is contrary to the information needs and information-seeking behaviour of academics and researchers as discussed in chapters 4 and 5 of this thesis. Monographs and print journals are still valuable sources of information to scholars.

7.14   CONCLUSION

The case studies reveal that transforming a technikon library into a university library entails a great deal of planning, organisation and financial backing. It is not a process that occurs automatically. Without the necessary care, the libraries of former technikons might not be able to meet the information needs of researchers and academics at a university of technology.

AUT appears to have started planning for this since they were allowed to confer degrees in 1995. Budgets have risen and the higher levels of budgets have been increased steadily to the present. They have given care to building up collections in the various formats and are currently able to add items to their collections at the same rate as similar universities in New Zealand. It is possible that their print collections will never match the size of those of universities, but they are making every reasonable effort to supplement shortfalls with electronic books and journals. If their materials budgets continue to increase in line with that of other universities, over the years their collections will mirror the depth and breadth of similar universities, especially as far as recently published material is concerned.

XUT does not show the same planning and resolve to become a university library with collections similar to those of other medium-sized South African universities. The lack of understanding of the important role of print resources as information resources is a cause for concern. Meeting user needs with such a limited supply of print resources could only be possible if their collection of electronic resources were very much more extensive than it is at present. Without firm financial backing from XUT and ultimately from the National Department of Education, this shortfall cannot be addressed. This institution does not appear to have been able to make the necessary paradigm shift from technikon to university of technology.

It is commendable that attention is currently being given to increasing access to electronic media, but the progress is slow and each year the entire collection is becoming increasingly incapable of supporting the information needs of academics and researchers in a university of technology. Providing only the limited collection of

resources currently on offer through the XUT library will limit the research output of that institution and discourage accredited scholars from joining the institution.

It is recommended that both institutions evaluate their collections against established lists of valuable information resources and against those of peer institutions. They should then devise plans to overcome the shortfalls in the collections and ensure that there is adequate funding to meet these needs. It is extremely unlikely that a new university of technology will be able to develop their print collections to the same strength and depth as those of established universities, nor is this necessarily required. When the collections of established universities were being developed there were no e-resources available which could supplement print resources. The contribution of electronic media to a library's total collection of information resources could not have been foreseen at the time older university libraries were developing their collections. It is however essential that a new university of technology should set a reasonable target and the goal, once that target is met, should be to add to their collections at the same rate as do established universities in their countries in order to be comparable to other university libraries.

All of these plans and policies should be reflected clearly in their collection development policies in order to provide clear guidelines for collection developers at their institutions. These can be used to support appeals to their parent institutions for the necessary support and funding.

In the next and final chapter of this thesis, the researcher will review the findings regarding the ways in which academics and researchers search for information, what their information needs are and what information sources are available to them to meet these needs. The results of the case studies will be reviewed and used to formulate a model CDP that can be adapted by individual universities of technology to meet local requirements. The research problem will then be examined in the light of the information in this thesis to evaluate the extent to which the problem has been resolved through this study.