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A STUDY OF DIVERGENCE:
LIBRARIES AND SOCIETY IN BRAZIL
WITHIN AN EDUCATIONAL PERSPECTIVE

by

Ana Maria Athayde Polke, M.A.

A doctoral thesis submitted in partial
fulfilment of the requirements for the
award of the degree of Doctor of Philosophy
of the Loughborough University of Technology.
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To my son Roberto,
whose youthful, but deep social commitment, was an inspiration for this endeavour.

In memoriam
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ABSTRACT

Since the lack of connection between library education and society was identified as the major problem of library education in Brazil, emphasis was placed on some social variables which bear upon librarianship education and practice. These social variables were selected on the basis of the communication cycle of recorded information, where the library profession is inserted.

A framework for developing educational objectives for library undergraduate education in Brazil was attempted by taking into account the three sources from which educational objectives may be derived, viz. the state of society, the needs of the student, and the nature of librarianship qua discipline.

Factors contributing to the disconnection between library education and society in Brazil were identified as being the uncritical transplant of foreign library educational models, as well as the lack of a bridge between the basic cycle in social sciences and the professional library cycle.

In order to gain a better insight into the problem of library education in Brazil a series of interviews were conducted with a group of Brazilian library educators.

The student (background, needs and interests) was examined by considering the findings of general studies on the Brazilian university student as well as a local study (State of Minas Gerais) specifically on the library student. The need was felt to know the students' view of the existent relationships between the basic cycle of social sciences and the professional library cycle. A study by means of a questionnaire applied to the students of the Library School of the Federal University of Minas Gerais was undertaken.

Librarianship qua discipline was approached under Nitecki's analysis of its nature, subject matter and objective, and compared and contrasted with a recent proposal for a minimum library curriculum, which is being studied by a group of Brazilian library schools.

This piece of work, as an exploratory study, presents some general guidelines for the definition of objectives for library education in Brazil, as hypotheses to be tested within the educational process.
1. INTRODUCTION

1.1 The problem of library education in Brazil - the undergraduate course

Concern for curricular studies had evolved even before the author became formally involved with library teaching in 1964. It was with the condition of librarian, first in SESI and SESC libraries (the workers' social organisation serving industrial and commercial workers respectively), and later at the Veterinary School rendering library services for students and lecturers/researchers that attention and interest led to defining problems in library education in Brazil. Later, from 1969 to 1973, as didactic coordinator of the library school in Belo Horizonte the writer took part in some curricular reformulations such as that undertaken to adapt library curriculum to the university reform, then being implemented in the country.

However, the need was felt for some investigation to provide orientation for better planning of teaching, research, and extension activities within that school. In 1974 one investigation project was designed and divided into three sub-projects: (i) an analysis of the labour market of the librarian in Belo Horizonte, the results of which were published in 1976; (ii) an analysis of the students of the School of Librarianship in Belo Horizonte, published in 1977; (1) and (iii) a study of the information user in Belo Horizonte, by type of libraries. (2)

The successive attempts made to improve the undergraduate library curriculum in the school, owing either to extrinsic factors (the need to adapt the curriculum to the university reform) or intrinsic (such as the need for integrating the disciplines of the curriculum) have always been obstructed by the rigidity of a nationally defined compulsory minimum curriculum, (3) implemented in 1962.

The present curricular organisation of the Library School of the Federal University of Minas Gerais illustrates
the need felt in the School to amend the core curricular in the light of the factors mentioned above and, more recently, (1976) to include the core courses of the basic cycle in social sciences. (4)

Dissatisfaction with undergraduate library education in the school and in the country at large has given rise to discerning critical analyses such as those by Briquet (5) pointing out the exaggerated emphasis on technicalities in detriment to principles, and the lack of an integrated approach to the activities and services of librarianship/documentation; Lima (6) calling attention to the fact that library education in Brazil was, and continues to be, based on foreign models with a minimum of local adaptations, whereas Cesarino (7) remarked on the failure of adding disciplines to the curriculum without considering that such disciplines have emerged and developed within a reality strange to our own reality, with needs and processes of a different nature. In 1978, Vieira & Lima (8) suggested the need of defining objectives for library education, which are related and relevant to Brazilian society. This, clearly, indicates the need to turn to the starting point of the curricular process, viz. the educational goals and objectives.

It is very outstanding that all these criticisms converge to a central point, which could be stated as follows: Library education in Brazil has been uncritically transplanting foreign models without taking into account the conditions and peculiarities of the local environment. As a result, this education has become far removed from the realities of the country and has influenced library practice and services, which, in turn, are not relevant to society.

This problem - the lack of connection between teaching and the social environment - is not restricted exclusively to library education. It is a characteristic, in general, common to university teaching in the country at large. This characteristic is confirmed in criticisms made of this level of teaching in Brazil. (9)
The description of the origins and the evolution of library education in Brazil contributes to the understanding of the present problem. A cursory examination shows that, as elsewhere, training for librarianship began with short courses given to meet the needs for organising libraries.

"Brazil's first training programme for librarians was established by decree 8,675 of July 11, 1911, which presented a series of four courses - bibliography, palaeography, iconography and numismatics - corresponding to the existing sections of the National Library. The original goal, then clearly visible, was one of training staff for a specific institution." (10)

The evolution of this course continued with some interruptions until 1931 when the programme was extended to two years, with the addition of courses in diplomacy, literary history and cartography. Meanwhile, library training had begun to São Paulo in 1929 under the guidance of Dorothy Muriel Geddes (now Mrs. Arthur Gropp) librarian of the Mackenzie Institute. While the influence of the course of the National Library is ascribed to the Ecole des Chartes, the course in São Paulo was under American influence. A grant from the Rockefeller Foundation for staff, salaries, scholarship aid and the preparation of materials was administered in that state from 1943 to 1948 by the American Library Association.

With regard to the American influence, a remark has to be made that most American library courses are taught at postgraduate level, which means that students enter the programme at the fifth-year level, giving professionals a preparation different in both duration (five years in the US, three in Brazil) and educational background (a bachelor's degree in the liberal arts and masters in librarianship in the US, a three-year bachelor's in librarianship in Brazil).

The ulterior American influence in the course of the National Library can be seen through the courses of its basic programme in 1944: organisation of libraries, cataloguing and classification, bibliography and reference, history of
the books and of libraries, whereas its advanced programme included: organisation and administration of libraries, cataloguing and classification, history of literature, and an elective to be chosen from among such courses as paleography, organisation of manuscripts, map collections, iconography, music libraries, children's and school libraries, university libraries, and special libraries or subject bibliography.

Jackson comments that these courses, which were implemented to meet immediate needs for organising libraries, with little or no thought of continuation became permanent, and with their affiliation to local universities the need was felt for the librarian to have a better background. This last statement does not necessary correspond with the facts, and can be illustrated by the example that most of the cultural disciplines of the minimum curriculum established in 1962 were already being taught at the Library School of Belo Horizonte, before its course was affiliated to the Federal University of Minas Gerais. Indications are more likely to be that the cultural disciplines were introduced as an attempt to fill the gap of both duration and content that existed between the American and the Brazilian background of the students.

The French influence in library education is to be found within the general educational situation of Brazil in the 1910's. Until the 1920's education in the country had been the instrument used for certifying an élite, and for facilitating the mobility of an emerging middle class. The humanistic and rhetoric education initiated during the colonial times (largely influenced by Portuguese and French educational systems) was still prevalent in the 1910's. By the other side, the National Library with its rich and old collection transplanted from Portugal to Brazil in 1810 was requiring trained people for its organisation. As a result the course then implemented in that library corresponded to actual needs, and this was reflected in the curriculum. Generally, a national library reflects the culture of a nation or the recorded memory of a culture.
The National Library in Brazil, owing to its transplantation from the metropolis represented the cultural roots of the colony.

Education in general (library education included) could not have been initiated in any other way in the country, owing to Brazilian historical conditions of a peripheral country with an economy based on the exportation of raw material to the central countries of the world economic system. Therefore, the more general process of transculturation of education from Western Europe, particularly from France, to a tropical country would include library education as well. In those times this process was fitted to the characteristics of the National Library in Brazil.

The American influence occurred when Brazil was undergoing the process of integrating the orbit of influence of the US. This influence, also, corresponded to the historical process, then in course in the country. However, it is the uncritical continuation of the process of transplanting library educational models, ignoring the needs of the local environment, which are being objects of concern by some Brazilian library educators. The need is felt for the professionals to acquire critical attitudes and intellectual autonomous instruments capable of leading to rethinking of library education in the country.

It is opportune to quote Abreu when he places the problem of transplantation in education.

It is nonsensical the idea of an education extraneous to the here and now. Therefore the school, in order to genuinely succeed will always have to be recreated in every cultural environment, even when the local culture is, to a certain extent, the extension of another original culture. No clearer illustration of this exists than the case of the American school, which by incorporating the cultural contributions of Western Europe, especially from England and Germany, rethought and reformulated them critically, and formed its own culture, its own school system in
function of the American reality and project, departing totally in some instances from the cultural theory and school organisation of the original contributing countries. (11)

The intention here is not to make history, but to look at history for the understanding of how the problem of disvinculation between library education and society came about in Brazil. (12)

The minimum library curriculum established by the Federal Council of Education (CFS) in 1962 was strongly influenced by two Brazilian schools. With regard to the cultural disciplines included in the curriculum (history of art, introduction to historical and social studies, evolution of the philosophical and scientific thought) their selection was influenced by the Library School at Belo Horizonte. The influence of the course of the National Library was principally through the compulsory nature of paleography. The initial objectives of the cultural disciplines were distorted, with the result that instead of fruitful integration and of serving as a basis for the librarians activities of classifying and reference, they became rather appendix to the library course (13) or, as one expressed it, as "ornamental disciplines". In reality, the minimum curriculum implemented in 1962, was criticised one year after its implementation. (14)

The introduction of the basic cycle (a group of core courses) in the social sciences as a result of University reform, (the use of which gradually is becoming common to most library courses in the country) could be, in theory, a contributing factor for library education becoming more related to Brazilian society. However, during the seminar on library teaching in 1975 (15) it was suggested that there lacked a bridge between the basic cycle in social sciences and library professional course.

A systematic effort to change the minimum curriculum in force was initiated in April 1976 at a meeting of the Brazilian Association of Library Schools (AEBBD) in Campinas, when two library schools, namely those of the States of Minas Gerais and Pernambuco, were appointed to study the problem
and present a draft proposal for the reformulation of the 1962 minimum curriculum. This document was initially to be submitted to the ABEED, and afterwards to be discussed on the broader national level.

The committee of Minas Gerais library school later promoted a new meeting in Belo Horizonte, with the courses of Brasilia, Paraná, and Pernambuco represented. A document originating from this meeting was submitted to the ABEED and an explanatory article was published in March, 1977, where one reads the statement: "The present document is the synthesis of the sequence of studies and discussions, and it must be made clear that unity of thought and agreement regarding its basic ideas were reached among the participants". (16)

Notwithstanding, during the 9th Brazilian Congress of Librarianship and Documentation held in July 1977 in Porto Alegre, the then president of the Brazilian Association of Library Schools (ABEED) presented a paper expressing her opinion of the library curriculum change. Her account, otherwise valuable in reporting the evolution of Brazilian library courses, ended by frustrating all efforts so far undertaken for curricular change. According to her, more necessary than a change in the curriculum, would be the revision of the course content of the disciplines, and she argued that "we would change names of disciplines, but would continue with the same content and the same mentality." (17)

The immediate reaction was a flurry of written questions (commonly used as responses to papers presented at Brazilian congresses) related to the draft proposal on the minimum curriculum.

As a consequence a new committee was appointed, now composed of representatives of the States of Bahia, Brasilia and Paraná. With the present situation questions are bound to arise with regard to the resistance to change of the curriculum. For example:

1. Should we regard library education in Brazil as an independent variable, remote from the social changes and the developments which have taken place within and without librarianship, by maintaining a minimum curriculum
established 17 years ago? Should be continue "up dating" the curricula by the addition of new disciplines without any thorough consideration of the whole curricular structure?

- Are disciplines such as History of art, History of literature, and so on, the most appropriate in providing a basis for relating libraries and information services to the life of the nation, from the point of view of its economic, social, educational, scientific, and technological development?

- Has the new curriculum proposal been fully understood? What changes are necessary for it to be implemented?

These seem to be open questions to the extent that a general consensus has not yet been reached in regard to changing the 1962 curriculum and the resistance to the new proposal can be seen through the delay in submitting it to the Federal Council of Education.

This brief discussion of the problems of undergraduate library education in Brazil depicts a situation that can be diagrammatically represented as follows:

```
Library education
Present state

Post and
current practices → 1962 Curriculum ← Basic cycle
Social Sciences

Problem - Disconnection
from Society

SOLUTION

Definition of objectives
```
Considering that the main problem of undergraduate library education in Brazil is its departure from the realities of the country, the contributing factors for this situation are linked (i) past and present practices of importing library education models without taking into account the local conditions (ii) such practices mentioned in (i) are translated into the present minimum curriculum, and (iii) there is no integration between the basic cycle in social sciences and the professional library cycle. This state of affairs has led critics of library education in Brazil to point out the need of defining objectives for library education, as mentioned before.

The further consideration of the problem of undergraduate library education in Brazil, leads to a new set of questions:

- What are the elements of the reality which are desired to be changed?
- What are the possible ways for those changes to be attained?
- If the basic cycle in social sciences is felt to be a first step in the direction of connecting library education to the life of the country, - how is it being integrated with the professional cycle?

This piece of work also intends to contribute to the present discussion on curriculum that exists within the country. Once the objectives have been nominated as the starting problem for any curricular organisation, i.e. the definition of what type of library professional is required at the undergraduate level to actuate in which reality, concentration will be placed on this aspect.

The general premises underlying the approach of the theme of study here proposed can be stated as follows:

1) The library is defined in relation to the social context in which it is placed, and its objectives are necessarily related to the society in question. This assumption is fundamental to the formulation of objectives for library education, since otherwise the past mistake is incurred of thinking that it is possible to conform our reality to educational models developed in other societies;
A connection can be made between library education and the society in which it is part, and can become relevant to this society to the extent that in the praxis of teaching it is sought:
- to identify problems underlying the professional field in question and to refer these problems to the wider social context;
- to seek to go beyond effects in an attempt to comprehend their causes, and to analyse these identified causes with a perspective to change, assuming a critical view of the given situation.
1.2 A framework for developing educational objectives for library education in Brazil.

The approach to deal with the problem of undergraduate library education in Brazil - a problem of defining general objectives - has led to the question of whether there is a clear-cut curriculum theory to orientate the development of this piece of work. The answer to this question is provided by Kerr (18) who has analysed the deductive and the inductive approaches so far undertaken to the building of curriculum theory. He suggests that a theoretical framework capable of guiding curriculum design is still lacking and he points out that the term "theory" should not be used in the scientific sense, but one might legitimately use the term in the empirical sense. This use includes speculation, especially when it relates to a number of hypotheses or to the general background.

To the term curriculum many definitions are being ascribed and it is being used in various senses in the educational literature. However, implicit in most definitions of the curriculum are at least four important elements: aims and objectives, content, learning experiences, and evaluation. Tyler (19) has expressed these elements in the form of questions.

"1. What educational purposes should the school seek to attain?
2. What educational experiences can be provided that are likely to attain these purposes?
3. How can these educational experiences be effectively organised?
4. How can we determine whether these purposes are being attained?"

Among the existent models for curriculum theory, one may take as an example the model developed by Kerr (20).
Source: KERR, John F. *The problem of curriculum reform*. 1971

This describes a more comprehensive and dynamic demonstration to the curriculum process. He suggests his model should be developed in operational rather than in conceptual terms. It is also further added that such model could encourage the development of sub-theories of the identified components of the curriculum and perhaps show the way towards a unified theory.

The model shows the constituent elements of the curriculum and their close interrelationships. The starting point for any curricular design or development, as seen in Kerr's model is the identification of educational objectives, or turning to Tyler's question "What educational purposes should the school seek to attain?".

Since Tyler, in 1933, defined an educational objective as "changes in pupil behaviour which it is intended to bring about by learning", distinctions are being made between aims (or general objectives) and specific objectives (or behavioural objectives). Objectives, in this last sense, are statements in which the knowledge, cognitive abilities, skills, interests, values, and attitudes of students should change if the curriculum is effective. Therefore, objectives in this
sense are operationally related to evaluation. (21)

Although recognising the importance of behavioural objectives in professional education, the present work is intended to discuss the general lines or principles for library undergraduate education in Brazil, from which specific objectives can be derived. In spite of the compulsory nature of the minimum curriculum, a case could be made that it should allow enough flexibility to the educational institutions to define their specific objectives and to compose their full curricula. A minimum curriculum must be seen as the instrument to assure that the essential knowledge and skills are covered. The determination of the what and the how to be taught would result in rigidity, a weakness to be avoided in the concept of minimum curriculum.

A model of curriculum showing its constituent elements does not by itself give any guidance as to which objectives to select, what content, what methods, which types of evaluation. According to Taba (22) an effective curriculum design must make clear what are the bases of the selection, as well as the sources from which these criteria are derived. Although most of the curriculum specialists agree on the sources from which educational objectives may be derived as being the nature of the subject matter, the state of society and the needs of the learner, there is considerable disagreement in each of these three areas.

From the elements identified as sources for the definition of educational objectives, this piece of work will pay more attention to the examination of those aspects of Brazilian society which have direct, or in some cases, indirect implications for library education and practice. This decision was partly due to the need of restricting the scope, but more importantly, it was due to the designated lack of correlation between library education and social environment in Brazil.

The difficulties posed by the element - "the nature of librarianship" - is that, although there are several studies analysing its nature, providing a valuable
basic for the understanding of its evolution and present state, these studies do not take into account significant epistemological contributions such as those from the "historical epistemology", the "genetic epistemology", besides the "critical epistemology". These lacunae would require an extra methodological effort, whose effective performance cannot be dealt with here, since they lie beyond our personal capacity. The option was then made to incorporate the contributions of Nitecki's model\(^{(24)}\) which identifies the subject of library science (considered by him to be a science) its methodology, objective, and nature. This is dealt with in part four of this work within the discussions regarding the basic cycle in the social sciences prior to the library professional course.

The student, as a source for the definitions of educational objectives, is dealt with in part three, on the basis of some of the existent studies on the Brazilian university student, besides one specifically related to the library student. It was felt necessary to know the extent of integration (or not) of the basic cycle in social sciences with the library professional course from the point of view of the student. A field study was made, by means of questionnaires applied to all students of the Library School of the Federal University of Minas Gerais who had passed through the basic cycle in the social sciences. The results of this study are presented and analysed in part three of this work.

One approach to deal with the third element - the social environment of Brazil - would be provided by studies undertaken by social scientists of reputed competency. However, it must be made clear that this piece of work does not intend to discuss the posture assumed by those scientists, but will examine their findings as they pertain to the scope of this study. The origins of most of the existing problems in underdeveloped societies such as the Brazilian society are explained in their writings and this is the starting point for any change which is intended to bring about in the related society as a whole, or in part of it, such as a curricular change.
After this decision was made, the next step would be the selection of topics according to their relevance for library education in Brazil. This selection was based on the Communication cycle, in which the library profession exists. A first view would show the communication cycle of recorded information from its generation through its processing to the assimilation of information by users.

Communication cycle of recorded information

![Communication cycle of recorded information diagram](image)

Librarians, along with other professionals are integrated into the processing phase which does not exclude the need for an understanding of the overall process, as well as for an awareness of the context or environment where communication occurs.

For a better identification of topics this diagram will be further extended, on the basis of the models of Burchinal (25) and Lancaster & Smith (26). Both models are intended to be limited to scientific and technical information, but it is not hard to envisage within the diagram all forms of recorded communication, whether to inform, instruct, persuade, or entertain. The creator of a literary piece, for instance, may not be restricted exclusively to his own imagination but may search for data or undertake background studies. His work, once it is created, will pass through all steps of the communication cycle.
THE COMMUNICATION CYCLE OF RECORDED INFORMATION

(11) ASSIMILATION BY USER
(10) PHYSICAL ACCESS
(9) IDENTIFICATION & LOCATION
(8) SECONDARY DISTRIBUTION
(7) SECONDARY PUBLICATION
(6) ORGANIZATION & CONTROL
(5) ACQUISITION & STORAGE
(4) PRIMARY DISTRIBUTION
(3) PRIMARY PUBLICATION
(2) COMPOSITION & RECORDING
(1) CREATION OR INFORMATION GENERATION

Role of Users
Role of Authors
Role of Publishers of bibliography
Role of Librarians and Information centres
Step 1 - The process begins with generation of information (by research and development, or by the application of the results of research and development, for instance). Here are included all forms of recorded communication, whether to inform, instruct, persuade or entertain.

Steps 1, 2, 3 and 4 represent the role played by authors, and include activities of research and creation. Step 2 includes all the activities involved in writing, editing, and reviewing the manuscripts or data compilation. These activities are developed by authors, editors of publications, and reviewers.

Steps 5 to 10 are mainly carried out by libraries and information centres through the activities of acquiring the published literature both primary (e.g. reports, theses, books), and secondary (e.g. bibliographies, reference books, book reviews) as well as listing of ongoing research; of storing it, of organizing and controlling it for secondary distribution. The secondary distribution activities of libraries and information centres include a large range of services (e.g. document delivery, current awareness, literature searching (3DI and retrospective).

In short, all kinds of reference and information services, including those provided from machine-readable data bases.

Step 11 - in this model is expanded to comprise not only the user who may generate new information, but also those who use information for decision taking, for planning, for problem solving, for teaching, for coping with day-to-day life or simply for fun. The dotted line from step 11 to step 1 indicates that generation of new information may (or may not) occur.

The arrows from 5, 6, 7 and 8 to 11 indicate that both primary and secondary publication and distribution may reach directly the user, by free delivery or by purchase. However this pattern is becoming increasingly less common.
The communication cycle is a continuous, changing, and renewed process. Moreover, communication is a social act, undergos influences from the economic, sociocultural, and political levels, and in turn cause influences on them. It is looking at the role played by librarians in the communication cycle of recorded information as a social role rather than just a technical one that one may identify important societal aspects with which library education must concern itself.

Starting from this model of the "Communication cycle of recorded information" one may identify themes for curricular studies. A general part of the theoretical foundations includes studies on "communication theory" and "processes of social communication". According to the sequential logic of the model, such studies precede the specific professional studies. Political/economic and socio-cultural aspects of Brazilian reality constitute studies for the Basic Cycle. These social studies are to be repeated during the professional cycle by relating them to specific aspects of the professional courses, or they would occur again as a result of the past mistake of not establishing the connection between societal factors and libraries in the country.

From the context of Brazilian reality the following have been selected for discussion in this piece of work with a view to identifying the implications of these factors to library education:

(i) Brasil as a peripheral country in the world's economic system and the effects of this situation on the scientific and technological activities, as well as on the information services which support them. Governmental policies for science and technology;

(ii) Education in Brazil, the attempts made for the creation of a university in Brasil. The university reform. Special reference is made to the problem of illiteracy. The teaching of history of Brazil at secondary school as a thematic illustration is also discussed.

The present situation of libraries in the country is discussed from the critical point of view of their shortcomings, since this is the approach more suitable for changes in library
education which it is intended to bring about. Also from the
context, and more directly linked to library/information
services are selected the topics:
(i) Book production and distribution, and the production
of bibliographic records of this output. The state
of bibliographical control in Brazil. Reference to the
supply of documents is illustrated in the section on
science and technology.
(ii) the reading habit within the country based on studies
which investigated that matter.
(iii) Internationalism in library/information policies and
services, and their reflexes on Brazilian library/
information scenery is briefly discussed.

Various other societal elements could be included,
such as limitations of expression and their bearing on
library/information services, mass-media's competition for
leisure time of real and potential library users, professionalism
and predominance of women in the field, and so on. Occasional
references will be made to them within the discussions of the
other mentioned topics.

Chapter four examines the present situation of library
education in Brazil: the curriculum in force, the interrelationships
of the basic cycle in social sciences and the professional cycle,
and the new proposal for a minimum library curriculum. This
chapter takes into account the elements present in the reality
which is intended should be changed, and discussed the potential
elements for such changes to take place. In order to gain
better insight into the problem of library education in Brazil,
a series of interviews were made with specialists in the field.
The results of these interviews added contributions to the
critical literature on library education in Brazil, besides
the contributions of related foreign literature. These
inputs to a better insight into the understanding of the
problem, could be diagrammatically represented as follows:
The final presentation of this work does not, however, necessarily follow the diagrammatic sequence.

The diagram shows that the review of the literature relating to library education, together with views recorded from interviews with specialists and with questionnaire returns from students at the Library School of the Federal University of Minas Gerais, and an examination of both the new minimum curriculum proposal and basic cycle in social sciences enable a clearer insight of the problems involved in present library education in Brazil. Additional factors which impinge on the identification and subsequent redefinition of objectives of the library education are discussed, such as the social environment in which the librarian operates, the psychocultural characteristics and behaviour of the Brazilian students and the nature of librarianship qua academic discipline.

The contributions of these various factors to identification of objectives of the library education enable the refinement of the existing objectives and the suggestion of guidelines for their redefinition.

Owing to (i) the nature of the curricular process in that setting objectives, organising contents, implementing the
curriculum and evaluating it, form a continuum, the end of which always brings one to a new beginning; (ii) the contents of the curriculum which refers to an evolutionary field such as librarianship and is intended to educate professionals who will perform in a changeable society too, (iii) the lack of any valid test for prognosticating the success of a curriculum, with the result that its validation is a long-run process, shown through the professional performance - this piece of work is characterised as exploratory in nature, in that sense ascribed to exploratory studies by Beltiss and collaborators, (27) viz. (i) to acquire familiarity with a phenomenon or (ii) to obtain new discernments on it. Both aspects will be explored by this work, hence its conclusions do not bring any assertiveness, but will be provisional conclusions leading to the suggestion of general objectives or principles for undergraduate library education in Brazil.

The general guidelines proposed are to be seen as hypotheses to be tested at the experimental level of the teaching practice, receiving contributions of all those involved in the library educational process.
1.3 Review of the literature on library curriculum in Brazil, together with international contributions.

As a starting point for the development of this piece of work it is necessary to proceed with a revision of the library curricular literature in Brazil, in order to identify its position and contribution to the understanding of the problem.

In 1973, Tsupal (28) reviewed the Brazilian library curriculum literature from its beginning to the years 1971-1972. He summarised the topics discussed in this literature as follows:

- equilibrium between technical disciplines and humanistic disciplines;
- education and training of professionals to perform in specific libraries or information services;
- education and training of professionals to deal with information technologies (this, predominantly at the post-graduate level);
- experimental programmes for a realistic and effective practicum in information retrieval;
- improvement of library teaching staff;

It might be useful to examine the relevant literature from 1970 onwards, since the beginning of the use of computer technology applied to bibliographical issues had occurred by the end of the 1960's in the country, and 1970 saw the establishment of the first post-graduate course in information science by the I339. Moreover, the international discussion of the issue information science versus library science has been reflected in the local discussion and more concentrated attention was given to the curriculum organisation of the undergraduate course.

Tsupal in his master's dissertation defends the inclusion of information science, albeit at only an introductory level, in the undergraduate curricula, since he states that: "for more advanced studies the student would need to know several other parallel disciplines, in addition to those already included in the curriculum".

Briquet (29) discusses library education in Brazil, showing that it contains several imbalances, with: (i) an overemphasis on technicalities to the detriment of the theoretical aspects of library problems, (ii) absence of an integrated approach to the activities and services of librarianship/documentation using the techniques of systems analysis and focusing the several disciplines as an organic whole, instead of isolated and static pieces: (iii) a dogmatic fidelity to cataloguing codes, documentation norms, and classification systems, ignoring the entropic process to which they are subjected due to documental information dynamics, advances in the information technology, and user psychology, and (iv) efforts being made towards the incorporation of information about the most recent technological innovations in this field without effecting changes in the whole structure of the courses.

Cesarino (1973) critically analyses the unsystematic reformulations of the library curriculum and presents various suggestions with regard to changes in curriculum on which action should be taken. These include:

- An investigation of the totality of needs for information.
- A survey of all library curricula in Brazil, including their operational objectives and course content.
- An identification of the essential disciplines for the basic cycle (general core) in order to provide the professional with the fundamentals of scientific knowledge, and to specify clearly the objectives and content of such disciplines.
- A survey of the actual options offered to the librarian at specialised and post-graduate levels, specifying objectives, prospects, structure, and adequacy for the attainment of needs. (30)

Assunção & Fiuza (1974) describe curricular changes introduced at the School of Librarianship and documentation of the Federal University of Minas Gerais envisioning better integration of the professional disciplines. (31)

Fonseca (1974) points out the need for post-graduate courses in the country due to the great development in librarianship as well as the emergence of documentation and
information science. He stresses that countries in the process of development, like Brazil, need at the same time undergraduate librarians for the popular and school libraries of the hinterlands, graduate librarians for planning national and regional library and documentation services, and researchers for the information science. Although dated 1974, this article was originally a communication by Fonseca during the ABEBD (Brazilian Association of Library Schools) seminar on library education held in Belo Horizonte, in 1968. (32)

Figueiredo (1977) stresses the need to distinguish vocational from professional tasks in order to educate two different levels of librarians: undergraduate, to perform technical routines, and graduate, to perform more creative tasks such as planning, management, researching, and teaching in librarianship. (33)

Zandonale (1977) pointed out that "the product of the Brazilian library schools in the form of a standard graduate in librarianship leaves plenty of room to be occupied by trained assistants and higher qualified librarians". (34)

A series of seminars on library education held in Belo Horizonte, 13-25 February 1978, provided a forum for representatives of several schools to discuss teaching practices in the professional disciplines. The discussions were preceded by presentations of local and other invited coordinators on specific disciplines, dealing with content, methodology, teaching materials, and trends of the discipline. Amongst the proposals made were: that user study and education should be treated as a curricular discipline, and that information science be included at the post-graduate level. A consensus was reached that the concepts of information science should be included in undergraduate courses. (35)

It is possible to identify three evolutionary stages in the Brazilian library curricular process as reflected in the literature. These are:

(i) a stage characterised by the uncritical incorporation of models and measures designed in and for developed societies. Disciplines were added to the minimum curriculum without pondering the adequacy and relevance
of them to the Brazilian context. One may call it the "modernisation" period;

(ii) the "diagnostic" period, or when first awareness of failures and inadequacies of the previous stage begin to be identified, and a more critical attitude was advocated for the curricular development in library studies;

(iii) the present stage, with the gradual implementation of the basic cycle in the social sciences, and the attempt to study and establish a minimum curriculum which may become visible and relevant to the Brazilian society. This period can become the "consolidation" period.

Foreign experts when visiting the country have made critical comments and occasional proposals for revision of the undergraduate library course. In general, their observations support and reinforce the main failures of this level of teaching as described by the national literature. (26)

Belzer (1975) suggested that the undergraduate course in Brazil should become a four year baccalaureate degree, it being of a cultural nature for the first two years, and being devoted to specialisation in librarianship for the last two years. (27)

A comprehensive international review of curriculum studies would be hardly attainable; therefore the selection here will include those studies which seem most closely related to the theme of this work. It must also be kept in mind that generally this literature refers to the American graduate courses or to the British postgraduate course; because of this the inherent differences in duration of courses and in the background of the students have to be taken into account.

Artandi (1965) advocates the systemic approach for courses concerned with the library as a social institution, searching for its role in a variety of social contexts. (28)

Harlow (1969) envisages the library within the larger structure of new knowledge, learning and decision making, structured by the process of communication. He specifies the library sub-systems as being (i) the generation, organisation and storage of the record; (ii) the interface between the
record and the user; (iii) the retrieval of information; (iv) the evaluation of output. Along this line he suggests a number of disciplines for the library curriculum. (30)

Fogg (1969) suggests the following areas for library education: (i) the techniques of the profession; (ii) the knowledge handled by the librarian; (iii) the social and professional environment; (iv) the art of communication and language. He describes the third area as "social and environmental studies to acquaint the librarian with the existing pattern of his society and the cultural and technological development that has produced it". (40)

Sorov (1969) observes that in Soviet history, library philosophy began to treat librarianship as a class phenomenon, organically linked to the ideas and opinions prevailing in society. He becomes radical when he asserts that the principle of "non-interference in the reading interests of people (by Russian bourgeois librarians, and not only Russians) has led to the study of problems that concerned merely the organisational and technical aspects of library building and activities, thus transforming librarianship into a formal and technical discipline isolated from the phenomena of social life". (41)

Reference has to be made to the study by Dean (1972) especially intended for developing countries. He provides a suggested curriculum, well structured. (42)

Wasserman (1972) although dealing with librarianship in general and not simply with library education, advocates a revised paradigm for library education and practice, to be focused upon clients and problem-solving rather than upon institutions and publications. (43)

Knapp (1973) suggests studies in "Organisational sociology" to be drawn upon for such courses as in "The library in society", "Library and information systems" and "Bibliographic organisation". (44)

Taylor's (1974) proposal for a library curriculum model, attending to changes in the cultural context, covers three areas: (i) information, (ii) people, (iii) technology, and research as the intersection of these three areas. (45)
Harvard-Williams produced a study on a common core curriculum for library/archives and information science in 1974. He suggests a set of modules for information/library/archives studies. In the course "Foundations" there are disciplines such as "Sociology of information" and "Library in society."\(^{(46)}\)

Hovis (1975) argues that the areas that should be covered in librarianship are not the traditional bibliography, indexing and administration, but rather (i) materials (covering information itself, the idea and its transmission and methods of gaining access to media); (ii) service (including methods by which the information is made available, or the techniques of its transfer to the user); (iii) users (to be studied in depth as individuals, groups, communities and nations). According to him a course in these areas should provide librarians with an initial insight into the sociology of librarianship.\(^{(47)}\)

Saunders (1975) calls for a satisfactory theory of library and communication science, transferring the stress from the institutions to the acts of communication. In 1972 Saunders recommended the areas of study and allocation of time for a basic programme in information studies: (i) Human communications, a foundation course (7.5%); (ii) User studies (7.5%); (iii) Sources of information (20%); (iv) Information/data storage and retrieval (20%); (v) Organisational aspects (20%); (vi) Special study or dissertation (15%); and (vii) Electives (10%). Observation was made that implicit in the above allocation of time "is the general assumption that the objective is to prepare students, via a general course, for careers that may develop in a whole variety of directions, and that the programme will provide the essential generalist basis from which future specialisations of all sorts will be able to develop".\(^{(48)}\)

D. J. Pocock (1976) analyses the programmes of 52 different institutions in 15 countries. He categorises the curricula as theoretically orientated, computer science orientated, library orientated, or system orientated, and illustrates each type of approach.\(^{(49)}\)

Societal concerns were central in the several papers presented at the Seminar on library and information manpower,
in Bangalore, 1976. Courses suggested are accompanied by educational objectives and main topics to be covered.\(^{(50)}\)

In the meeting on "MABIS Library and Information science manpower development in the Asia Region (1976)" various levels of training were suggested. The undergraduate level, leading to the Bachelor's degree, aims "at providing such education and training as to enable the graduates to work as junior professionals in libraries, large information centres, and to head small libraries, such as school libraries, small public libraries, etc."\(^{(51)}\)

Pratt (1975) presented a discussion document at the Meeting for the Latin America Region, Bogota (Colombia), pointing five areas to be covered by library/information education. The first area suggested refers to the socio-cultural problems which affect the communication process and the role played by libraries and other similar agencies in this process.\(^{(52)}\)

International bodies such as UNESCO, ITD, UNESCO, and international library associations such as IFLA have been concerned with the education and training of library/information workers, by sponsoring regional meetings, promoting international conferences, and so on. The preparation of textbooks and guidelines and curriculum material is usually sponsored by those organisations through an international advisory board of experts in library/information science.

However, the varied cultural and educational backgrounds existing in member countries, the wide dispersion of committee members, the language differences, changing composition of the meetings, and cost of attending conferences are among the many difficulties faced by those international organisations for the effective achievement of their objectives.\(^{(53)}\)

Rovelstad (1977) postulates an understanding of librarian social responsibility to be conveyed through pertinent sociological studies as they relate to library science.\(^{(54)}\)

Shore\(^{(55)}\) has given considerable attention to the social responsibilities of the library profession and the interaction between the user and the graphic record. His voluminous and important bibliographical production would deserve a separate revision. This was made to a certain
The international issue of librarianship and information science and the various positions attached to relationships between the two disciplines has converged in recent years to a more constructive position, as exemplified by Rees & Seracovic (57) who discusses some contributions of several sciences underlying information science (viz. mathematics, logic, statistics, linguistics, system analysis, behavioural sciences) which are beneficial for library practice and education.

On the same lines, Haari & Debons (1972) suggest that the concept of information science is so intimately related to the basic concepts underlying library service that it should be incorporated in the entire curriculum rather than be an outside speciality. (58) One may conclude that this examined literature stresses the need for changes in library education and the redesign of library curriculum. Central to the discussion is the problem of relating library education to its social environment. This is implicit in most criticisms made of present library education, or is made explicit through the suggestion of disciplines specifically related to be included in the curriculum or proposals for changing the curriculum content.
REFORMS AND NOTES


(2) Financial constraints as well as the team research involvement in masters' programmes has caused this last subproject delay. Possibly it will be developed by the postgraduate students in a series of masters' theses. One study has already been accomplished on the geologists use of information. A second study focusing the users of a special library is due for early completion.

(3) Minimum curricula are prescribed by the Federal Council of Education (CPE) for all undergraduate courses in Brazil. These minimum curricula, once established, become compulsory for the institutions throughout the country.

(4) The first cycle of basic studies is part of the general guidelines provided by the Brazilian University Reform - 1966/1969.


(9) RÍVERA, Maria de Lourdes de A. A universidade brasileira em busca de sua identidade. Petrópolis, Vozes, 1977. 177p. (Doctoral dissertation)


(12) The most important studies on the development of library education in Brazil are:


JACKSON, W. V. op. cit.


(13) This opinion was given by one of the interviewees referred to in chapter four of this work.

(14) One year after its implementation of the 1962 minimum curriculum a paper was presented at the 4th Brazilian Congress of Librarianship and Documentation criticizing the minimum curriculum with suggestions for changes:


(20) KEIZ, 1971. op. cit.

(21) From the studies of behavioural psychologists a whole range of instructions are at the disposal of educators for the statement of objectives, defined in precise behavioural terms. Here reference has to be made to the work of Bloom and his associates in a taxonomy of educational objectives. Since 1948, in a series of informal annual meetings at the American Psychological Association (APA), in Boston, an interest has been developed in theoretical studies of a classification system for educational objectives, from which would be derived the basis for the
curriculum structure and school examination. From the
analyses initiated by the U.S. Bloch and his co-workers
have organized and published the handbooks referring, one
to the cognitive domain and another to the affective domain.

For many educators Bloch's work is considered as having too
strong a psychological bias, for it takes too little account
of the "unique" yield of particular fields of study.
Nevertheless most educators agree that his work represents
the best disciplined approach to the formulation of
objectives so far undertaken.

BLOCH, Benjamin S. et alii, eds. Taxonomy of educational
objectives, the classification of educational objectives.

KRATHWOHL, David R. et alii. Taxonomy of educational objectives,
the classification of educational objectives. Handbook II :
Affective domain. New York, David McKay, c.1954.


(22) TABA, Hilda. Curriculum development: theory and practice.

(23) Neither the historical epistemology of either the genetic and
critical epistemologies are present in the studies investigating
librarianship nature, subject matter and objective. However
the influence of Piaget's work in librarianship may be
eemplified in library classification. As pointed out by
D. J. Wooton. Jean Piaget, Bärbel, Inhelder, and their
colleagues in Geneva have shown that the processes of forming
concepts involve multiplicative classifications and lattices,
and not just single hierarchies. This opposes to the still
prevailing trends in US certain library circles who equate
classification with the 19th century scheme of Dewey and the
Library of Congress, ignoring the theory and practice of
classification over the last forty years (Colon classification
1933-1967, Classification Research Group)

Such theory, in development by the Classification Research
Group of London, CRG started from the facet analysis technique,
fashioned by Ranganathan, and is based on the same approach to
knowledge as that of the research worker in psychology and
linguistics.

Another influence is Ravel's recent paper which takes into
account the ordering relations of Piaget System of the Sciences
when examining librarianship interdisciplinarity.

(24) MITTEJKI, J.Z. Reflections on the nature and limits of library

(25) BURSTNAI, Lee D. The ST communication enterprise in the United
States: status and forecasts. Library science with a slant
With regard to Cesarino's suggestions, a few comments should be provided:

i) An investigation into the information needs of science and technology users in the country was considered by the Division of Studies and Projects of IBICT/CNPq, and a draft for a pilot study was formulated in 1977.

ii) In the course of time, the state of library curricula in Brazil was studied by TSUPAL, Zardonce, and CAPES.

With regard to the operational objectives of the disciplines, Tsupal's conclusions were not very encouraging. By applying Bloom's taxonomy in his analysis he observes that the concentration of the objectives is on the lowest levels of that taxonomy.

In the other hand, the statement of operational objectives does not seem to be a common practice in Brazilian syllabuses, for Tsupal goes on to suggest the urgency for library teachers to formulate the operational objectives of their disciplines.

TSUPAL, op. cit. note

In the survey carried out by a committee composed of the coordinators of the graduate courses on Library/Information Science and the representative of CAPES, one finds the remark: "The academic activities of the schools are still very limited in number and caliber. Extension courses, research projects and community involvement are rare and of low level, with no continuity or planning ahead, mostly occurring in a fortuitous manner".


This point is supported by the joint study conducted by the Social Sciences Department (HSS) and the several involved courses in the structuring of the basic cycle in social sciences. Cesarino herself took part in the study representing the Library School (L3). We shall turn to this study in chapter four.

Studies of labour market demands and the preparation of suitable professionals are hardly undertaken in Brazil. In the library/information areas they are nonexistent. It might be useful considering the studies in other countries, as for example:
SUNDY, Mary L. & WASSERMAN, Paul L. Proposal of research into the identification of manpower requirements, the educational preparation and the utilization of manpower in the Library and Information professions. Final report. Phase I. Maryland, College Park: School of Library and Information Services, University of Maryland, 1968.


(33) RICCARDI, Nise. In: CONGRESSO BRASILEIRO DE BIBLIOTEQUERIA E DOCUMENTAÇÃO. Porto Alegre, 1977. Anna de ...


S. E. G.: A biblioteconomia no Brasil. R. Biblioteconom. Brasilia, 3(1): 1-15, jan.-june, 1975. This article raises many of the most important problems with which Brazil is faced in library education and activities.


(52) SEMINAR on Library and Information manpower development: national, regional and international aspects. 6-10 Dec. 1976. Bangalore, Documentation Research & Training Centre (ISI) & The Indian National Scientific Documentation Centre (CSIR), 1976. 153p.


(54) FRIITT, Anna Maria. *Formación de bibliotecarios, documentalistas y especialistas de información en América Latina*. (Xerox copy) 1977. Papers presented at the Regional Meeting for the Latin American Region in Bogotá, Colombia, were not published or are difficult to trace.
(53) ROYER, Kathilda V. IFML and library education. *Journal of Education for Librarianship*, 16(2):105-19, Fall 1972.


2. THE SOCIAL BASIS FOR THE FORMULATION OF OBJECTIVES FOR LIBRARY EDUCATION

2.1 Brazil as a peripheral country

Brazilian industrialisation via substitution of imports and later by the associationship of local entrepreneurs with foreign corporations has resulted in growth or changes occurring only in the cities, and the economic results of this industrialisation have benefitted a tiny percentage of the population, (more specifically the 5% among whom 75% of the national income is concentrated). The cities and larger towns have experienced an enormous growth in population, or in the more current and correct expression, Brazilian cities and towns do not grow but inflate. They inflated by the rural exodus provoked by the deviation of resources from the agricultural sector to sustain the expansion of this process of industrialisation.

The present factors concerning industrial economic and social changes in Brazil can be traced to the historical development of international trading and world economic power.

The systematic trade among the various nations emerged in history as a means to attenuate the common practices of piracy and war. This transformation in the system of "changes" among the various societies would not, however, eliminate the elements of violence and fraud of this trade. The founders of the political economy in the second half of the XVIII century made a great effort to attenuate those intrinsic elements of the trade practice. They elaborated a version of a trade to be regulated by the law of offer and demand. Liberal economists explained the world business as an international division of labour and defended the idea that in trading, the involved parts in this transaction transfer in a reciprocal way, things that are equivalent and are of their mutual interest. This would be true if the power and fraud would not affect such transferences. In reality, the trade as practised presently between developed and underdeveloped countries does not show significant differences of the trade as practised between a
dominant tribe and the dominated tribes, or between the Athenians Empire or Roman Empire and then dominated partnerships. (1)

Owing to the expansion of the societies of advanced markets all the nations are presently comprised with a sole economic system. In this economic system the decision power of the nations is very unequal. Through existent mechanisms in the international business, a few corporations decide the allocation of resources in the world. The less developed countries in this process have a more passive role. Up to now, the mechanisms of international trade have resulted in the producing countries of the Third World having little or no influence over the level of prices for the raw material they sell to the industrialized world, the only exception registered is the case of petrol. The deterioration of the terms of trade, which has been studied and proved by those affected by this deterioration, can be exemplified. The rise in price of coffee, for instance, is the result of speculative manoeuvres, and has not led to any improvement in the lot of the workers on the coffee plantation. In 1954, the Third World coffee-producing countries had to supply 14 sacks of coffee to pay for one jeep made in the industrialized countries. Barely 8 years later, they had to deliver 32 sacks. (2)

There are numerous theories of "economic underdevelopment" available which postulate as a precondition for the transition to "self-sustained growth" some sort of "big push", "take-off" or "critical minimum effort". The terminology used by such theories reflects the now general de facto practice which honours the ex-colonial and semi-colonial dependent countries by attributing to them the euphemistic or polite epithet "developing".

Keith Griffin (3) asserts that many writers on the poverty of nations have suffered from two serious handicaps: lack of knowledge about the broad historical forces associated with underdevelopment and ignorance of the institutions, behaviour responses and ways of life of the largest sector within the underdeveloped countries, the rural areas.
Economists like Keith Griffin and Andre Gunder Frank and others, emphasise in their writings the importance not only of studying the history of the underdeveloped countries but also of seeing that history in the context of the world-wide development of capitalism where the underdevelopment of Africa, Asia, and Latin America was a part of the same process that led to development in Europe and North America.

With the pioneering historical studies of underdevelopment by Celso Furtado (4), Andre Gunder Frank (5) and others, a whole new approach to an understanding of the process of development and underdevelopment has been in the making in Latin America.

The economists of CEPAL(*) have introduced original ideas with regard to the functioning of the underdeveloped economies and their relations with the more advanced countries. From the CEPAL studies has originated a genuine "Latin American economic thought", responsible for the polemic thesis like that which discerns the international division of economies between central and peripheral countries. (6) Unless these last ones could promote radical changes in their relations with the centre they would be condemned to the underdevelopment, this being understood not as a simple stage prior to development, but as the consequence of a structural situation.

After the disillusion of the 1960's in which it was realised that the process of industrialization in Latin America did not solve the economic problems of the region, it was considered that the theoretical structure proposed by CEPAL in purely economic terms was insufficient to explain the succeeding course of events. The fundamental contribution to the theory of dependence was the idea that the process of dependence of Latin America is in first instance, determined by "internal factors". Consequently, the process of dependence is not automatically imposed from outside to inside, but is favoured and sustained by the internal structures of the countries concerned. (7)

(*) CEPAL - Commission for Latin America - Approved by the Resolution number 106 of the Economic and Social Council of the United Nations with the objective of promoting the regional planning for the development of Latin American countries.
Dependency theory is not scientific pars pro and it is
one in development by the social scientists, mainly economists,
to explain the process of dependence. Their ideas have
influenced the developing countries and some studies have been
undertaken under its theoretical model.

In the period after World War II, with the decline of
the traditional system of international division of labour, has
been an increase in the expansion of the multinational
corporations (MNCs). The phenomenon of MNCs is not unique
to the Third World, but the structural situation common to
underdevelopment makes the MNC in a Third World country a
different institutional force than is necessarily needed to
be the case when it operates in an advanced industrial
society.

Ronald Müller defines a multinational corporation
as being "... a company with its parent headquarters located
in one country and subsidiary operations in a number of other
countries. The central characteristic of a multinational
corporation is that it seeks to maximize the profits not of
its individual subsidiaries, but rather of the centre parent
company..." He poses the question whether the two phenomena,
the maintenance of underdevelopment and the rise of the
modern multinational corporation, are related to each other.
Based on the empirical results of recent researches, Müller
concentrates his analysis on three main aspects: (i) the
empirical reality of the role played by MNCs in the economies
of the Third World, with specific focus in Latin America as
an illustrative case; (ii) the methods and practices utilised
by MNCs in their Third World operations, and (iii) the results
of these operations and their impacts on the development
potential of less developed countries (LDCs). His conclusions
clearly show that the maintenance of underdevelopment after
some twenty years of so-called development attempts by
two-thirds of the world's people is clearly correlated to
this new worldwide institution, the MNC.

(*) The expression Third World is being largely used in order
to distinguish the emergent nations from the main Western
and Communist groups. It is applied to more than one
hundred nations which hold 70% of the world population.
Dependency theory is not scientific in the sense of being widely accepted, but it is one of the main theories developed by social scientists, mainly economists, to explain the process of economic development. Their ideas have significantly influenced the study of underdevelopment and some studies have been undertaken under its theoretical model.

In the period after World War II, with the decline of the traditional system of international division of labour, there has been an increase in the expansion of the multinational corporations (MNCs). The phenomenon of MNCs is not unique to the Third World(*) but the structural situation common to underdevelopment makes the MNC in a Third World country a different institutional force than is necessarily needed to be the case when it operates in an advanced industrial society.

Ronald Miller(**) defines a multinational corporation as being "... a company with its parent headquarters located in one country and subsidiary operations in a number of other countries. The central characteristic of a multinational corporation is that it seeks to maximize the profits of its individual subsidiaries, but rather of the centre parent company..." He poses the question whether the two phenomena, the maintenance of underdevelopment and the rise of the modern multinational corporation, are related to each other. Based on the empirical results of recent research, Miller concentrates his analysis on three main aspects: (i) the empirical reality of the role played by MNCs in the economics of the Third World, with specific focus in Latin America as an illustrative case; (ii) the methods and practices utilized by MNCs in their Third World operations, and (iii) the results of these operations and their impacts on the development potential of less developed countries (LDCs). His conclusions clearly show that the maintenance of underdevelopment after some twenty years of so-called development attempts by two-thirds of the world's people is clearly correlated to this new worldwide institution, the MNC.

(*) The expression Third World is being largely used in order to distinguish the emergent nations from the main Western and Communist groups. It is applied to more than one hundred nations which hold 70% of the world population.
From a summary of the conclusions of his study the following points can be made:

. The analysis of the transference of technology revealed a basic cause of further unemployment and a further concentration of already extremely unequal income distribution. The technology transferred to the Third World by the MNCs has been designed for the resources conditions of the advanced industrialised nations, whereas in the Third World countries the resources conditions are an abundance of labour and an acute scarcity of capital. Empirical data shows that MNCs are eliminating many more jobs than they are creating.

. Upon examination, the financial contribution turns out to be a financial drain, decreasing both current consumption and available local savings and, thus, future consumption for the vast majority of LDCs inhabitants.

. The analysis of the balance of payments contribution led to similar conclusions. In contrast to a contribution, the empirical information showed no superior export performance by MNCs relative to local firms unless it was accompanied by export underpricing. Concomitantly, exports were further limited via restrictions placed on their technology by MNCs, while potential inflows were minimized, the balance of payments outflows were accentuated through import overpricing and inflated royalty payments.

Besides the transfer-in of inappropriate technology and the transfer-out of financial resources, this process includes a further destabilising force, the transfer via advertising and mass-media programming, of a consumption ideology, the goals of which are 30% at best, and more realistically 20% of LDCs populations can hope to achieve in the foreseeable future.\(^9\)

Similarly, Gilles Bertin\(^*\), when analysing the relationships between the MNCs and the State, concludes that the former, by organising the production and the changes according to their own interests, are interfering in the

\(^*\) To Gilles Bertin, international business expert, the MNCs origin is to be found in the industrial and commercial empires formed at the end of the Medium Age.
State prerogatives, once they increase the external indebtedness of the countries where they operate, they cause the disequilibrium of the balance of payments; spread inflation and determine the income distribution. (10)

To Celso Portado (11) the main feature of this new international economy, based on the MNCs, is that technology embodied in equipment and the design of the final consumer goods, tends to be less and less the object of market transactions. Decentralising their productive activities in response to the dimensions of the local markets of the dependent economies, MNCs have transferred technology into transactions internal to the new firms. On the other hand, access to technical innovation constitutes a necessary condition for growth based on the patterns of consumption created in the rich countries. Working on the basis of blueprints and minimising the cost of research and development, MNCs can overcome some of the limitations imposed by the smallness of local markets and lack of external economies. He calls attention to the fact that the big corporations settled in the peripheral countries have their own projects for international expansion of which the local governments have little information. There is a debility from the State in the direction and coordination of economic activities, which could be defined as being of interest for the local collectivity. However, on the other side, the State has great responsibilities in the making and in the operation of physical infrastructures, in the guarantee of legal order and in the imposition of discipline to the masses of workers. (*)

The increase of the State apparatus is inevitable and the improvement of professional cadres becomes a requirement by the big enterprises which invest in the country.

Latin America, the world region that has nurtured the frustration of development relatively longer than any other peripheral country, has also witnessed political and social unrest. The ideology consumption geared to satisfy the high patterns of a small minority of the population provokes social tensions and political instability. The coexistence of luxurious forms of consumption with the

(*) In fact the organised labour as a countervailing force or check upon the power of the corporations is weak or absent
poverty of the large masses gives origin to social tensions which necessarily reflect at the political level. The State, powerless in the face of increasing international control of the economic activities in the peripheral countries, is depleted in the struggle against its internal effects. Political frustrations lead to institutional instability and to State control by military forces.

The new international economic order

The world press has focused on the various problems related to the development and implementation of a new social and economic order. The urgency of such new order was pointed out by the Sixth Special Assembly of the United Nations Organisation in May 1974. The conceptions of Northern, Southern and Eastern countries with regard to this new social and economic order are radically antagonistic. The antagonism is especially strong between those who defend economic liberalism (the Western World based on the prescriptions of the invisible hand of the market defended by traditionalist economists) and those who defend applied socialism (sustained by representatives of governments who suppose they are the mediators of the law of history). Meanwhile the gap between those increasingly populated countries of the Third World and the industrialised countries is becoming wider. Even the industrialised countries face problems with the price of energy, inflation and unemployment. The Fourth Conference of the United Nations Conference on Trade and Development (UNCTAD) did not succeed in establishing a common fund for stabilising the form of income originated from export. The commercialisation and sale of raw materials, the access of the underdeveloped countries to the market of investments, and assistance in the process of development remain just mere promises. The points of disagreement are many and serious. The external debt of US $200 billion of the Third World countries was not reconsidered and their manufactured goods continue to be blocked by protectionism in the rich countries. (12)

The nations of the Third World are becoming increasingly aware of the fallacious nature of the present world economic system, as well as with regard to the statements of capitalist
or socialist potencies and their strategies for economic development. Conversely, these strategies sponsored by both groups of nations rather perpetuate than eliminate underdevelopment. This increasing awareness of the inequalities and injustices are likely to lead to an international confrontation, whose signs can already be perceived, although they are to a certain extent being refrained up to now.

Most analysts agree that the unrestrained expansion of the market within the nations, and among them, has surpassed the limits of the human psychological tolerance and the capacity of nature in the provision of non-renewal raw materials.

It is against this general picture that the United Nations Organisation intends to implement gradually a new international economic order. (13)

The terms 'underdeveloped', 'Developing', 'peripheral' are being used interchangeably in this piece of work, as it is considered that no agreement has been reached on the terminology. In the light of studies that have been made and developed, these terms should be replaced by the terms central and peripheral.

**Implications for the Libraries**

It has been argued that the economic productivity provides public wealth that libraries may (or may not) share or that low economic productivity leads to strict priorities which may (or may not) include libraries. More pragmatically it is said that libraries, whether academic, public, school or special, are linked closely to the country's economy, since they depend upon it for the allocation of funds. However, the form by which the economy of a country is organised and its leading to greater or lesser interaction between the productive system and the techno/scientific system, together with the degree to which this interaction will affect the institutions involved, including the infrastructure of information, are questions that are rarely discussed in library literature.
From the point of view of underdeveloped countries, little or no attention has been given to the relationships of the economic sector with libraries and information services. It has been generally assumed that information infrastructure will develop to the extent that the economy of the country also develops. The very character of this economic development has not been the concern of those involved with information services, even at the level of planning of these services.

Consonant with this line of concern generally in Brazil, articles and other works that discuss the evolution of librarianship/documentation and the emergence of the information science assume the perspective of the developed countries, where a schism has actually occurred between the various professionals of those disciplines. This literature begins by pointing out the extraordinary achievements of the twentieth century by means of the scientific findings and technological developments which favoured the exponential growth of specialist literature, thus requiring the adoption of more sophisticated techniques for its treatment.

This is correct with regard to those countries which have been in the centre of the events. It is not however correct with regard to the 'peripheral' countries which only in an external way reflect the movement in the central countries.

More serious is the fallacious presumption that information is neutral, and its corollary that information production and flow occurs in the same way in Brazil, as in China or in the US. Courses which base their discussions and studies on this false presumption are likely to contribute to the separation of library/information from the realities of the country. The most visible consequence is the application of techniques such as bibliometrics to less relevant problems of the country.

Undoubtedly Brazil has experienced a great industrial development in the last two decades. The conditions under which this development has occurred and the relations of such development to the library/information are not questioned
by these professionals. The indications are that librarians and other professionals involved in information services assume a priori that given a certain industrial development also a certain demand for information will occur. This assumption is based on the model of highly industrialised countries, where owing to the nature of this industrial process it has actually meant the need for an increasing sophistication of information systems and the training of the related professionals. A question seldom considered is whether Brazilian industrial development is likely to require the same sort and to the same degree the information systems of the developed countries - new thought is required both on the quality and the quantity of the information required.
2.1.1. Science and technology in Brazil and the information services that support them

The aim of this section is to examine, though briefly, the decision-making processes in science and technology, and what institutions are involved in their development as well as the information services that support science and technology in Brazil. Moreover some problems relative to the development of science and technology in this country will be examined since information provision is also affected by these problems.

The decision-making processes in science and technology

Since 1963, when the OECD countries gathered together their ministers responsible for scientific affairs greater importance began to be attributed to scientific investigation. Based on the presupposition of a causal relationship between science/technology and economic development many governments of developing countries have begun to formulate policies for science and technology for purposes of economic development.

It was in 1968 when Brazil first formulated a science and technology policy through the Strategic Development Programme. Previous to this date, there already were in the country agencies responsible for science and technology. The National Research Council (CNPq), the Coordinating Agency for the Improvement of Higher Level Personnel (CAPES), and the National Economic Bank (BNDE) had already been created in 1951.

CNPq was created for the purpose of "promoting and stimulating the development of scientific and technological investigation". From the beginning the Council encountered budgetary problems which kept it from carrying out its main objective of financing scientific and technological investigation. It paid much more attention to the formation of human resources through the granting of scholarships.

Similarly, the National Economic Development Fund of the Economic Development Bank (BNDE) was created in 1964 with the dual objective of promoting post-graduate work and supporting research. It concentrated its efforts primarily on the first objective. It was the low demand for technology by National industries which caused the Bank to focus its efforts on the development of human resources.

CAPES, whose main objective is the development of human resources, joined together with the two federal agencies in the science and technology sector to concentrate their efforts on the formation of personnel. This caused a certain degree of institutional competition among them and a lack of coordination of their efforts.
In order to carry out the functions of a national documentation centre in science and technology the Brazilian Institute of Bibliography and Documentation (IBBD) was created in 1954 under the auspices of the National Research Council (CNPq). This Institute, besides its supervisory activities, research, and access to documentary information in the country and abroad, concentrated its efforts on the training of people in the information field. At a specialized level the IBBD has administered the Scientific Documentation Programme since 1955, as well as a masters' programme in information science since 1970.  

In 1973 with the publication of the first Basic Plan of Scientific and Technological Development for the period 1973-1974, there was also created the National System of Scientific and Technological Information (SNICT) which in spite of having advanced to the point of formulating a definite plan for its institutionalisation, has never got off the ground.  

In the present evolutionary process of forming a science and technology policy, which need not be discussed here, the Secretariat of Planning (SEPLAN) which is directly connected to the Presidency of the Republic, formulates, with the help of CNPq, national plans for science and technology, and facilitates their execution. The basic financial support is from the National Fund for the Development of Science and Technology (FNDCT), whose secretariat is the Financier of Projects and Studies (FINEP), both of which are connected to SEPLAN.  

The attached chart gives an idea of the large number of institutions involved in science and technology in Brazil. We add to this chart the Brazilian Institute of Scientific and Technological Information (IBICT) (Formerly IBBD) which did not appear in the model. (See P.50) 

The major criticism which is made is the lack of coordination among the various institutions responsible for science and technology policy. This lack of coordination is consequently reflected in the information sector. This sector itself lacks an effective and efficient coordination of its activities.  

Another difficulty noted is that in spite of the fact that the CNPq counts on its own funds a growing part of the funds of the Brazilian Programme for scientific and technological development (FBDCT) is being financed by the National Fund for the Development of Science and Technology (FNDCT) which is administered by the Financier of Projects and Studies (FINEP). In spite of the fact that the application of funds
ORGANS OF FEDERAL GOVERNMENT WHICH ACTUATE DIRECTLY AND/OR INDIRECTLY IN SCIENCE AND TECHNOLOGY IN BRAZIL
is subject to the approval of the CNPq, whoever controls the funds at source is in the strongest position.

The diversification of institutions can be a positive factor offering alternatives to the producers as well as the consumers of science and technology, but according to some critics the lack of coordination among them has resulted in disorientation and wastage. A result of this lack of communication is found in the Basic Plans of Science and Technology where in spite of the effort to define some general policy lines, the programmes remain basically those already developed by the various ministerial agencies, research institutes, and universities.

Obstacles to the development of an autonomous technology in the country

The first National Science and Technology Development Plan was published in 1972 for the period 1972-1974, and the second, also triennial, in 1975. In that year the National Research Council (CNPq) was reorganised, changing its name to the National Council of Scientific and Technological Development (the sigla CNPq was maintained). As was previously mentioned, it was now placed under the control of the Secretariat of Planning of Presidency of the Republic (SEPLAN). As the result of this reorganisation the Council now became responsible for the coordination and planning of the country's scientific and technological policy. As the central institution of a new administrative body, the National System of Scientific and Technological Development has, as its principal means of action, formulation and execution of planning.

Through the national plans mentioned above, a development policy has been formulated based on the concept of autonomous technology. This idea of autonomous technology, made explicit in those plans, is still hampered by serious obstacles. Amongst the arguments for an autonomous technology are: without our own technology the basic sectors necessary to national security could not be controlled; technology conditions the autonomy of economic development. This brings with it political autonomy; Brazilian control and involvement in science and technology not only is important in itself, it is also important because it permits an adequate solution to social problems. These include certain technologies which might resolve health problems, nutrition, employment, education. For example: integrated projects for rural development; the preservation of environmental conditions; the development of more realistic housing projects for low income groups. A good example of the
lack of research directed to improving the basic needs of Brazilian society is the case of bean production. The lack of government participation in development of a programme of research relating to improved cultivation of this crop has meant that low production still prevails, with the result that there is an ever increasing price for the commodity, which is a basic essential to the country. Moreover, the development of autonomous technology increases the ability of the country to bargain in the market of technical know-how.

In spite of the fact that the Brazilian plans for science and technology reveal these concerns, in practice great difficulties are experienced, owing to low demand from the producing sector. If technology is an essential part of the producing process, it also depends upon this process in order to exist and develop. Since technology is the sum of scientific knowledge and know-how (technical ability) applied to the development of goods and services, it depends upon the existence of a scientific community involved in research and experimentation, as well as a society which demands and applies its results for the solution of problems or for the production of goods and services. Technological development is ideally carried out only in the appropriate context of the existence of human resources, of official stimuli, and of market demand. In the case of Brazil, this last element seems to be the most precarious of the relationship.

With regard to supply, certain difficulties have been noted, such as: the majority of research institutes serve as public agencies in a bureaucratic structure which offers little mobility in its relationships with the producing sector. The accounting system is rigorous and formalistic, its major concern being to control the manner in which the budgets are utilized and not the final results of the study. The restrictions on the use of financial resources also make the meeting of deadlines difficult, a fundamental requirement when dealing with contracts made with industry. The rigid salary schedule of these agencies makes it difficult to maintain a highly trained technical group. In the marketing field, there is great lack of market research and coordination with the producing sector to adapt projects to actual need. There is a lack of coordination between research institutes and the different branches of the national producing system, which include industrial enterprises, financial sectors of industry, institutions for the expansion of infrastructures, and bureaux for economic planning. However, solutions have been sought for these problems. New forms of organising scientific
activities in centres are materialising which seek to combine with services to private industry and to the government in producing a more realistic and consumer-orientated applied research programme. Some examples are COPPETEtec at the University of Rio de Janeiro, CODETEC at the University of Campinas, and FUNDEP, at the Federal University of Minas Gerais.

In the area of human resources the country has made progress. The table below compares the number of scientists and engineers in some countries.

SCIENCE AND TECHNOLOGY

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of scientists &amp; engineers</th>
<th>Scientists &amp; Engineers engaged in R &amp; D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina (1972)</td>
<td>333,000</td>
<td>7,100</td>
</tr>
<tr>
<td>Brazil (1970)</td>
<td>541,328</td>
<td>7,725</td>
</tr>
<tr>
<td>France (1971)</td>
<td>---</td>
<td>60,645</td>
</tr>
<tr>
<td>Germany, Fed. Republic (1970)</td>
<td>1,083,000</td>
<td>100,005</td>
</tr>
<tr>
<td>Japan (1974)</td>
<td>---</td>
<td>375,379</td>
</tr>
<tr>
<td>Nigeria (1970/1971)</td>
<td>19,885</td>
<td>2,083</td>
</tr>
<tr>
<td>USA (1973)</td>
<td>1,614,000</td>
<td>523,300</td>
</tr>
</tbody>
</table>

Raw Data Source: U.N. Statistical Yearbook, 1976

(1) The figures refer only to basic postgraduate research and post-graduate teaching in the higher education sector.

(2) Data related to the number of scientists does not include social sciences and humanities. Scientists engaged in R & D do not include law, humanities and education.

What stands out from the table is the enormous difference between the two groups of countries (developed and developing) in the number of existent scientists and engineers and of those engaged in research and development. These differences are made more evident by
the study of Freeman and Young\(^{(21)}\) who show that more than 2/3rds of scientists and engineers involved in research and development (R & D) in the whole world are located in only two countries, the US and USSR, which have together less than 14% of the world’s population. These two countries and Western Europe have more than 80% of the world’s scientists and less than 20% of the world’s population. The authors suggest that less than 5% of the world’s activities of R & D are made in the underdeveloped countries which have more than half of the world’s population, and that less than 2% of those countries’ efforts in R & D are directly linked to their problems.

In 1971 CNPq estimated the number of researchers in Brazil at 9,000 which would translate into one per every 10,000 inhabitants. This does not compare favourably with other countries. In 1967 Germany had 36, Bulgaria 45, the Netherlands 40, France 37, and Japan in 1965 had 14. The resources employed in post graduate work have tended to improve this relationship. Up to the end of 1973 - 4,000 theses had been accepted for high degrees. In the period from January 1, 1974 to June 30, 1975, over 2,000 had already been successfully defended, which signifies that in 18 months 1/3rd of all the theses and dissertations ever completed in Brazil were successfully completed and accepted. However, studies indicate that basic science as well as, in part, technology, possess a reasonable productive capacity, much of which goes unutilised.\(^{(22)}\)

In the financial area progress has also been made. Spending has risen from 0.5% of the GNP in 1967 to 1% in 1975. This percentage is far from that of the USA and the USSR which is around 3%, but it is not so far from other developed countries in Europe which average around 1.5%.\(^{(23)}\)

The majority of studies agree that the major difficulty for Brazil’s scientific and technological development lies in the low demand from industry\(^{(24)}\) and also in the low research activity of these industries. Statistics support this, such as a study by the Roberto Simonsen Institute of São Paulo in 1967. 1,877 letters were sent to industries and there were 744 replies. Of these only 168 (22.6%) stated that they were carrying out technological research. Questionnaires later verified that in the 99 industries that carried out research there were only 109 researchers, that is to say, an average of little more than one researcher per enterprise.\(^{(25)}\)

Another work by the Institute for Economic and Social Planning (IPEA) for the period 1961 to 1969, examined the research activities of of 454 industrial firms which were amongst the 500 largest in the country,
i.e. those which were most likely to be carrying out research. The results of the study showed that experimentation with projects accounted for 16.9%, adaptation 66.7% and creation for 16.4%. According to the authors of this study, the category "creation" does not go beyond more sophisticated adaptations, which raises the number of adaptations to 83.1%, leaving 16.9% for experimentation on the level of pilot projects and 0% for actual creations. (26)

The reasons for this absence of research in industry as well as the low demand for research by industrial institutes is that they make use of foreign technology. In the period from 1964 to 1973 Gnocchi (27) compares the exportation and importation of patent requests, showing that in these years Brazil shows a deficit. The total exportation of patent requests was 1,907 while the number imported was 53,315. The numbers make very evident the technological dependence of the country.

The table below shows that the importation of know-how has been intensified through the years.

ORIGIN OF THE TECHNOLOGY USED IN THE INSTALLATION OF INDUSTRIAL ENTERPRISES, ACCORDING TO THEIR OWNERSHIP AND DATE OF INSTALLATION

<table>
<thead>
<tr>
<th>Date of Installation</th>
<th>National Enterprises</th>
<th>Foreign Enterprises</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Domestic</td>
<td>Foreign</td>
<td>Domestic</td>
</tr>
<tr>
<td>Before 1930</td>
<td>53.1</td>
<td>46.9</td>
<td>16.2</td>
</tr>
<tr>
<td>1930 - 1945</td>
<td>63.7</td>
<td>36.3</td>
<td>21.2</td>
</tr>
<tr>
<td>1946 - 1955</td>
<td>45.8</td>
<td>54.2</td>
<td>13.3</td>
</tr>
<tr>
<td>1956 - 1965</td>
<td>37.1</td>
<td>62.9</td>
<td>10.4</td>
</tr>
<tr>
<td>After 1965</td>
<td>31.8</td>
<td>68.2</td>
<td>-</td>
</tr>
</tbody>
</table>

Source: IPEA, 1971

As may be seen, the use of foreign know-how has been larger in the enterprises installed more recently. The period 1930-1945 shows a favourable situation for the absorption of national technology, which according to Sant'Anna may be ascribed to the big international crises of capitalism and to World War II.
The IPEA study\(^{28}\) has classified the transferred technology in five categories: technical assistance, licence for manufacturing and/or the use of patents, licence for use of brands, engineering services, and development of projects. The incidence of each category is shown in the table below.

### TECHNOLOGY TRANSFERENCE

**DISTRIBUTION OF CONTRACTS BY OWNERSHIP OF BUSINESS AND NATURE OF CONTRACT**

<table>
<thead>
<tr>
<th>Nature</th>
<th>National</th>
<th>Foreign</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical assistance</td>
<td>532</td>
<td>400</td>
<td>932</td>
</tr>
<tr>
<td>Licence for manufacturing and/or for the use of patents</td>
<td>123</td>
<td>85</td>
<td>208</td>
</tr>
<tr>
<td>Licence for the use of brands</td>
<td>174</td>
<td>88</td>
<td>262</td>
</tr>
<tr>
<td>Engineering services</td>
<td>358</td>
<td>109</td>
<td>467</td>
</tr>
<tr>
<td>Development of projects</td>
<td>88</td>
<td>26</td>
<td>114</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1,275</strong></td>
<td><strong>708</strong></td>
<td><strong>1,983</strong></td>
</tr>
</tbody>
</table>

Source: IPEA, 1971

The high incidence of the item "technical assistance" is explained by the authors in these terms: "The prohibition, in the country, of royalty transferal from local subsidiaries to mother countries induces the suppression of payments for brands and patents in the contracts among such enterprises. Reference in the contracts is then made to technical assistance, on which there is no legal restriction".

It remains to be seen why national industries resort to the use of foreign technology. The majority of studies about the development of science and technology in Brazil develop from the theory that science and technology are supported by economic policy. The authors say in their interpretation of the problem, that few see science and technology as independent variables, capable of shaping the structure and the development of the society alone.

When industrialising, Brazil opted for the process of "import substitution" and for the increasing participation of foreign industries in the producing system by means of importation of machines and equipment and more recently in contracting technical assistance from them. This
led the country to even greater foreign dependence. From 1964 onwards, the economic policy of a close and growing connection to foreign capital was accelerated. For the attainment of this policy certain conditions were necessary, such as (i) compression of the wage rate in order to assure profitable capital, (ii) political stability assured through strong concentration of power, including the use of arbitrary means (institutional acts), capable of neutralising any form of political unrest.

The association with foreign capital has moulded a domestic economic structure similar to that of countries with greater availability of capital, by transforming the big capitalist enterprises, the multinational corporations, into the dynamic centre of the process of economic development. The nature of the technological and financial requirements of the industrialisation process has diminished the power of domestic enterprises to compete with the multinationals and further augmented the oligopolnic power of these companies.

Furtado(20) observes that the Brazilian experience of large scale industrialisation based on the demands of the small minority of the population which possesses an extraordinarily large percentage of the national income is conditioning not only international economic dependence but also the country's internal structure, the determination of what is to be produced, the means of capital accumulation, the nature of the economic cycle, and simultaneously, the social and political structures.

The authors who study the evolution of science and technology in Brazil vary from the extreme radicalism of those who do not see any other solution than drastic change in the political and socio-economic system to those who see gaps in the system where it is possible to work within it in the sense of slowly modifying the technological profile of the country. This last position defends what is called the "technological circuit". Defining the primary purpose of technology for the country is naturally a political decision, the success of which would depend on the integration of efforts at the planning and executive level. In order for this technological circuit to function without being jeopardized it must count with the following support : research and educational agencies (universities and research institutes), financial agencies (especially BNDE and FINEP), protection against foreign technology (Ministry of Industry and Commerce), a guaranteed market (Central Bank), and the collaboration of the industrial sector, mainly of state industry. (30)

Nevertheless, even with the above support, it is clear that the economic model responsible for a great part of the problems of technological
development, would have to undergo some changes. Whether those changes are politically viable is an open question.

The Brazilian industrial structure is based on the triangle, state industries, foreign industries, and private national industries, as well as some other combinations which have recently appeared. The position occupied by these 3 types of industries is shown in a survey of 318 major industries, by Doelinger and Cavalcanti in 1972. In total, government industries represent 35.39%, private national industries 24.21%, and multinationals 40.40% of the triangle. Analysing this situation Carvalho comments: "The weakest link in this triangle is constituted by the national private industries.... The state industries dominate in the area of basic needs, steel industry, mining and petroleum, besides controlling electric energy and communications. The national private industries are concentrated in the production of more traditional primary goods while foreign industries dominate the production of heavy goods, i.e. those which are more capital and technology intensive, like machines, transportation material, chemicals pharmaceutical products and non-metallic minerals.

As for the state industries, critics say that without a doubt the action of these industries could be a key element in the strengthening of a national economy and technology. They also observe that the action of the state industries has left a lot to be desired with regard to the carrying out of their own research, to the demand for research from institutes, to the support for engineering and national industry. These industries have acted more and more as a micro-economic calculation that makes them search for the most rapid solutions from the industrial point of view. This means to buy technological packages instead of developing their own researches. The technological research developed by these industries has been modest and of little impact. According to a study by FINEP, the shift device to the use of foreign consulting firms on the part of metal and steelworks industries is the predominant trend. One reason for this shift is financial. Foreign financial agencies powerfully influence the choice of consultants.

Regarding the private national industries there is lack of research and there is a high technological dependence on foreign sources. The reasons presented for not creating research centres are that they are very expensive and the return is slow. The purchase of foreign technology is cheaper and more rapid and, currently, more lucrative.

Since 1950, when the country intensified the process of import
substitution with the entrance of foreign competitors, the most logical and most lucrative solution from the industrial point of view has been to make use of foreign technology in order to attend to the demands of the new situation more rapidly as a condition of survival.

The small or non-existent activity of research and development by foreign industries, especially the multinationals in the underdeveloped countries is confirmed not only by Brazilian studies but also by studies made in the countries in which the multinationals originate. A study conducted by the United States Aid for International Development (USAID) although admitting that these corporations contribute to the improvement of technical and executive abilities, concludes that "research and development by the US based multinational corporations solely or primarily directed toward an individual LDC (less developed country) is still much less impressive". (34) A study by the Stanford Research Institute which covered 200 large American enterprises, concludes that the researches developed by those enterprises abroad refer principally to the development of "differential products", for instance, a Colgate toothpaste more British, more Jamaican, or more Brazilian. (35)

From the industrial point of view, some actions of the multinationals are perfectly understandable. Why duplicate research institutes in the underdeveloped countries when the scientific and technological capacity is greater in their own industrialised countries where their headquarters are sited, and where supervision can be more direct? Because of this complexity of research and consequent cost, control of technology becomes more and more important.

With regard to the control of technology the physicist Cerqueira Leite is of the opinion that the dicotomy between the groups of industrialised countries and the underdeveloped countries will be accentuated at the end of this century as a result of the increase in their respective dependence. The developed countries are increasing their insufficiency with regard to raw materials and energy and the underdeveloped countries are not able to counter their increasing technology deficit in relation to the industrialised countries. Cerqueira Leite considers that the polarisation of these two groups of countries around their respective capacities seems inevitable and he observes that we are still seeing a relative abundance of raw materials, energy and space. With the approaching period of shortage, the countries that supply raw materials will begin to re-evaluate their own riches and seek more adequate prices for them. In order to maintain the status-quo the developed countries will begin to interfere with the
technological development of the underdeveloped countries by refraining from cooperating in investments that facilitate the absorption of technology. This tendency is already visible, even though it still has not become government policy for the industrialised countries. If the underdeveloped countries are able to develop their own technology the availability of abundant natural resources within their boundaries will put them in a very favourable position in relation to the advanced countries who have already exhausted their own resources. (76)

It is convenient to remember here that in 1974 the United States Congress approved the Jackson amendment, placing under the control of the State Department all operations dealing with the export of equipment and information services, with the allegation that it was necessary to restrict the transfer of information in order for the country to maintain its technological and industrial lead. It is true that the restriction was above all aimed at the COMECON countries and Western Europe, its possible competitors. (57) However this measure affects the mutually supportive relationship between national and international aspects of information activity.

The presence of multinationals has been intensified by the Brazilian economic system which is orientated toward the conquest of foreign markets which favour investment. The problem of incompatibility between science and technology policy and the actual economic policy is evident.

The journal *Conjuntura econômica* da Fundação Getulio Vargas (32) listed in 1972 the 50 larger enterprises in the country. Of these 21 were operating with foreign capital, corresponding to more than 40% of their total capital. Of the next 50 enterprises, the 16 multinationals held more than 30% of the total capital. In the 500 larger enterprises, 122 were multinationals with more than 25% of the total capital. The table and the diagram below show the high percentage of foreign capital.
BRAZIL 1970
The 500 largest enterprises and their owners

<table>
<thead>
<tr>
<th>Classification</th>
<th>(*) Foreign participation</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 50</td>
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<td>51 to 100</td>
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<td>101 to 200</td>
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<tr>
<td>201 to 300</td>
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<td>75</td>
</tr>
<tr>
<td>301 to 400</td>
<td>22</td>
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<tr>
<td>401 to 500</td>
<td>17</td>
<td>83</td>
</tr>
</tbody>
</table>

(*) Includes enterprises whose capital of non residents exceeds 10% of the total capital

Source: NESS, Walter L. Local equity participation: Brazilian Fiscal incentive scheme and the multinational response.

BRAZIL 1970
The 500 largest enterprises according to their ownership

Since then, Brazil has seen an increase in foreign capital. In reference to this, Severo Gomes, resigning the Ministry of Industry (1974-1977) stated that the predominance of foreign capital in the modern industrial sector is gradually reaching the traditional industrial area of services, hotels, leasing, etc. (39)

The growth of multinationals can also be followed through the
central Bank Bulletins from 1973 to 1977. In that period the growth of foreign investment in the machine industry was 266%, in metallurgy 193% and in electrical and communication materials it reached 216%. Sectors which were previously national, wood, for example, showed a growth of 446%, and the list continues. (40)

Multinational industries in Brazil control various technologically progressive sectors, however, restrictive measures that could be taken against them to force the adoption of certain types of behaviour would cause conflict with the guiding forces of the economic system. There have been efforts in the legislation of technology transfer on the part of the National Institute of Industrial Research (INPI) to the effect of prompting state industries to make their purchases in the internal market.

From the point of view of information, the multinationals have their own research laboratories in their mother countries, where they finance universities and scientific institutions from which they get the most recent inventions and products. Therefore the multinationals are not interested in stimulating universities and other research institutions in the subsidiary countries where they operate, nor do they need libraries and information services there. In 1971, for example, the documentation department of the Industrial Federation of São Paulo visited all the largest firms in the city of São Paulo. (41) Of the 522 firms visited, only 30 had libraries; 342 had no libraries or even technical books, and of these only 16 said they used other libraries. In the 30 which had libraries, the total of qualified librarians was 5. São Paulo is the major industrial centre of the country.

In Brazil there is a lack of studies that seek to evaluate, for example, the long term consequences of concentrating technological strength in one area and not another. Even though technicians are left out of political decisions about priorities, this is no excuse for the lack of such long term studies. With such studies undertaken they could offer supplementary information which would facilitate political decisions. They would also serve as a means of convincing politicians of the necessity or urgency of certain policies as opposed to others. (42)

Some examples of autonomous technological development in the country.

There exist some isolated examples of autonomous technological development by Brazilian industries. One example CODSTEC, a corporation whose stockholders are among some of the largest national industries in the country, CODSTEC subcontracts via the university and passes this
technology on to the contractor, functioning as a kind of bridge between producers and consumers of technology. In the year and a half of its existence it has already developed electronic digital instruments and software to predict harvest yield and international cereal prices like corn, soyabeans, etc. The colonization project in the Amazon is interesting. It is an ecological project based on forestry. For this project the use of large machines is avoided in order not to damage the soil. It seeks to conserve the forest and colonize it at the same time, optimising certain resources that exist there like cashew and rubber and combining them with a type of crop suitable to the region like cacao and babak. This project's research team includes, ecologists, sociologists, agronomists, forestry specialists, etc. The technology developed under the direction of the University of Campinas, is passed on to the industries concerned. (43)

The importance of this project is unquestionable when one considers the predatory nature of large multinational industries in this region. Both Brazilian and world scientific communities have discussed the problems concerning the Amazon region in the specialist literature. The predatory activities of multinational corporations such as FIAT, VOLKSWAGEN, JARI, etc. also are being divulged in popular magazines. The German Gulbenkian Institute has published studies warning against the dangers provoked by the activities of those corporations in the region, as it is considered that the region is of crucial world environmental importance.

Another example of national technology is EMBRAER (Brazilian Aeronautical Industry) that produces 6 types of aircraft. EMBRAER is a typical example of a science-based industry, in the sense that it is a spin-off from the São José dos Campos Aerospace Technical Centre, connected with the Aeronautical Ministry. EMBRAER has complete control of the technology and relies on financial support from the government and on a guaranteed market.

Another example is DIGIBRAS, an industry which produces computers, and its subsidiary COBRA. In the computer sector there still exists the Politechnical Digital Systems Laboratory of the University of São Paulo that has already developed a computer with totally national technology, the G-10, with software developed at the Pontifical University of Rio de Janeiro.

Moreover, there is the TRANSIT Semi-conductors Corporation also linked to the area of computers.
DIOBRAS, Biochemicals of Brazil, is a corporation that utilizes technology developed in the Biochemical Department at the Federal University of Minas Gerais. It produces enzymes for the pharmaceutical industry and coagulents for the food industry.

São Paulo's subway, that created a Technical Assistance (ATG) sector also has a technological information department.

ULTRATEC, engineering and assembly, makes a considerable effort to develop their own technology especially in the area of engineering. It depends on the support of FINEP and it is dedicated to the designing and construction of chemical and petro-chemical units.

Romi Industries invest 4% of their income on testing and Light Metal has its own research centre.

PROMON Engineering Corporation, which is one of the largest industries of engineering projects in the country, recently established a technical information centre and is affecting the information market in the country. It has on-line access to American Data Lines (DIALOG, ORBIT, BRS). It sells search services, SDI, and locates and obtains copies of documents.

The above-mentioned industries have also introduced information services to support their research activities.

Carvalho identifies in these successful examples, the following conditions: solid base of R & D, preferential pacts with research and teaching institutions, solid financial support from the government; some type of protection from the market, at least in the initial phases of consolidation; foreign technical assistance combined with their own capacity to absorb information and be independent in the short run. But not all had all of these elements at the same time. One may add to Carvalho's remarks that for the gradual decrease of dependence to external sources of technology it is required that the enterprises besides increasing their efforts for technological development, also have at their disposition an adequate and dynamic support of technical and scientific information.

The failure of the National System of Scientific and Technological Information, (SNICT) left a lacuna which is still not filled. The information systems have developed unsystematically and without coordination. There is a need to form a more rational way in which to utilise common information resources.
Scientific and technological information services support research activities and technological development. In the absence of these activities it is obvious that the information services to support them become superfluous.

As previously pointed out, national industries are affected by the characteristics of national development, which, in technological terms, translates into dependency, in productive techniques as well as in the types of consumption patterned after those in other countries. Within the context of a policy of accelerated substitution of imports with a strong opening up to foreign capital and the growing implantation of competing foreign industries the problems of developing an autonomous technology for Brazil are increased. It becomes more viable for national industries to buy technology than to develop their own.

As for the subsidiaries of foreign industries, studies have shown that they use, almost exclusively, foreign technology, their only technological activity in Brazil being basically that of adapting this technology to local conditions. The technological behaviour of foreign industry adds little to the already precarious efforts to create technology and develop information services in Brazil.

The location of information services in Brazil confirms the tendencies pointed out above.
Scientific and Technological Information Systems

The development of scientific and technological information systems in Brazil reflects the economic orientation of the country. In reality these systems have developed together with government agencies, public and state industries, government foundations, and universities and industries of a mixed nature. Garcia(45) sees in this set-up favourable conditions for the integration of these systems into a national system of scientific and technological information, based on a more aggressive and disseminatory information policy. In other words, a freer form for the transfer of knowledge for the absorption, adaptation and generation of technology. The recommendations of her report propose that the CNPq form a Work Group composed of high level specialists, as much in the information field as in scientific and technological fields, (on the condition that they generate and make use of information) to study the subject and make decisions about basic orientations. Her study proposes various recommendations, the value of which is in that they are based on the study of the actual situation of scientific and technological information in the country. No similar study had been undertaken.

The principal problems that have affected the field are known to be their ambitious nature and the impossibility of their implementation, for example, there is a need to resolve a series of conditions in the infrastructure (communication and transportation, for example) in order to make possible the formation of specialised networks; the reversal that has characterised many national initiatives, i.e. there is no care taken with supporting the scientific and technological information structure, (for example, strengthening the documentary bases of the libraries), but sophisticated services are formed which are connected to foreign data bases.

The following is a summary of the results of Garcia's work whose incorporation into the teaching curriculum would be beneficial.

Garcia's survey, the most complete concerning the state of scientific and technological information in Brazil was carried out in 1979, did not pretend to have been comprehensive. It was submitted to people in the area to be criticised and discussed. Of the 81 information centres surveyed, 93.9% are in the area of government, particularly federal government. Only 6.1% are in the private sector.
95.2% of these services are concentrated in the south-central region, in the states of Rio de Janeiro, São Paulo, Minas Gerais, Rio Grande do Sul and the Federal District. They are distributed in the following cities: Rio de Janeiro (34.1%), Brasilia (23.2%), São Paulo (15.8%), Belo Horizonte (11.0%).

With regard to the state of implementation, it was observed that 70.8% are in normal running order, and that 29.2% are found in planning and implantation phases.

28 speciality areas were detected in the operation of the systems, having a greater concentration in the areas of agriculture/cattle raising (8.6%), Industrial technology (8.6%), transportation (8.6%), iron and steel metallurgy (7.3%), economical planning (7.3%), scientific and technological information (7.3%), geosciences (6.1%), and biomedical sciences (4.9%).

The areas with the best coverage using as criteria the degree of accessibility (open to the community) and the quality of the services are: agriculture/cattle raising, (EMBRAPA/EMBRATER), biomedical sciences (SIRENE), Nuclear energy (CIN), iron and steel metallurgy (USIMINAS), science and technology in general (IBICT, SICTEX, PROMON, corporations) law legislation (PRODASEN), road engineering/transportation, (IPR). In the petroleum field there exists a good service, (CENPES), however it is restricted to use by PETROBRAS and its subsidiaries.

A growing utilisation of bibliographical data bases is occurring, particularly those of foreign origin. A table in the original work lists 21 data bases whose access is gained through telex or a terminal. Access to processing centres abroad is still made in a precarious and experimental manner.

It is possible to show, through a few evaluative studies of specialist information systems, that these systems are being implemented in Brazil without a solid basis of libraries and communication facilities.

With regard to document access the problem can be illustrated in Brazil by the study undertaken by the Institute of Highways Research (IPR). This study evaluated the DIRR system of Organisation for Economic Cooperation and Development (OECD), their users in Brazil, and the local availability of the material indexed by the system. It was disclosed
that the average rate of accessibility to one document listed by the DIRR system, and transferred to the 250 users of the SDI service of two institutions (namely Institute of Highways Research (IPR) and National Department of Road Engineering/Transportation (DNER) was 1.9% for the IPR’s users and 3.6% for the users of DNER. This level of document availability is a poignant comment on the argument put forward about the quality of document provision in Brazil.\(^{(46)}\)

An evaluation of the National System of Information and Documentation in Agriculture (SNIDA) gives a more favourable picture. About 750 institutions are using the services provided by this system. The evaluation data relates to the period 1977/1978, and shows that 55% of the requests for documents were addressed to foreign centres, such as Agriculture Library Network (AGLINET), British Library (BL), Centre National de la Recherche Scientifique (CNRS), National Agricultural Library (NAL) and others. These 55% requests abroad involved the manipulation of 34 different currencies, obviously increasing administrative problems. Putting together several tables of the original study there is some basis for a more direct comparison between Brazil and abroad, with regard to the number of documents requested, documents provided, not provided, and the average of supply time.

**THE ACCESS TO SCIENTIFIC AND TECHNOLOGICAL DOCUMENTS BY THE NATIONAL SYSTEM OF INFORMATION AND DOCUMENTATION IN AGRICULTURE (SNIDA) 1977/1978**

<table>
<thead>
<tr>
<th></th>
<th>Documents requested</th>
<th>Documents provided</th>
<th>Unobtainable (%)</th>
<th>Average supply time</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRAZIL (Access to 42 centres)</td>
<td>6,390</td>
<td>5,168</td>
<td>19.0</td>
<td>30 days</td>
</tr>
<tr>
<td>ABROAD (Access to 72 centres)</td>
<td>7,787</td>
<td>3,530</td>
<td>45.0</td>
<td>60 days</td>
</tr>
</tbody>
</table>

Source: CHASTINET, Y. & REDEIROG DA FONSECA, A.F. Acesso à documentação primária no Brasil. 1979
THE ACCESS TO SCIENTIFIC AND TECHNOLOGICAL DOCUMENTS
BY THE NATIONAL SYSTEM OF INFORMATION AND DOCUMENTATION
IN AGRICULTURE (SNIDA) 1977/1978

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<thead>
<tr>
<th>Documents requested</th>
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<th>Average supply time</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRAZIL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Access to 7 main centres)</td>
<td>6,028</td>
<td>4,699</td>
<td>20.0</td>
</tr>
<tr>
<td>ABROAD</td>
<td></td>
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<tr>
<td>(Access to 9 main centres)</td>
<td>2,735</td>
<td>2,274</td>
<td>14.0</td>
</tr>
</tbody>
</table>

Source: CHASTINET, J. & MEDEIROS DA FONSECA, A.P. Acesso à documentação primária no Brasil. 1979

In Brazil the largest supplier is the Department of Information and Documentation of the Brazilian Enterprise for Agricultural Research (EMBRAPA) followed by the States of Minas Gerais, Rio de Janeiro, and São Paulo. The nine largest suppliers abroad are: Costa Rica (721 documents provided), France (176), England (168), Spain (166), Japan (143), Colombia (141), Italy (134), Chile (110), Austria (98).

This report does not discuss the question of costs. The system charges the user for the documentation provided (Xerox, microcard, 35 mm films).(47)

Specialist systems, in Brazil, are increasingly being connected to foreign data bases, from which lists of documents are obtained. But there is then the problem of obtaining the documents when there is no adequate infrastructure of libraries to supply them. Financial resources are channelled to the apex of the system which increases in complexity whilst the libraries remain stagnant.

Decisions are taken and policies implemented by means of a vertical process, from top to bottom. This process hardly takes into account the problems faced by libraries and users. Librarians cannot explain, for example, why the Brazilian Bibliography of Agriculture was replaced by a computer listing processed in Turrialba (Costa Rica).

It was decided to send to Turrialba the Brazilian bibliographical output on magnetic tape to be processed and incorporated into the Latin American bibliographical output on agriculture. In theory, the researcher
has now at his disposition the whole bibliographical production of the Latin American countries in one publication. However, such a publication does not provide any sort of indexing. It is a simple computer list, and the researchers, of course, refuse to use it.

One interviewee posed the question: "What would be more important for library education in Brazil? To prepare good technicians who are able, for instance, to extract all the possibilities within a Thesaurus, who catalogue and classify well and so on, or to attempt the education of more critical professionals?

"One observes in the agriculture field, for example, that the librarians are very concerned that the libraries' collections are very well classified and organised. Meetings are promoted in Brasilia to bring librarians up-to-date, to teach how to use the thesaurus, of which new editions are published. However, how many of these librarians discuss the state of their libraries' collections which are poor and inadequate for the user's needs, or even discuss the information on agriculture?

"Moreover, it is becoming increasingly common at most Brazilian meetings in library/information, not to discuss problems at such meetings, only the successful results are reported. Mutual failings are not revealed. However, more frank discussions could help other institutions to avoid the same mistakes. Apparently there is the tacit assumption that to admit mistakes tarnishes the professional image".\(^{48}\)

### Information within the II Brazilian plan for the scientific and technological development (PBDCT)

The II PBDCT established two groups of information in its section on support activities: the first, centralized in the CNPq (information for scientific and technological planning and scientific and technical information), and the second, decentralised, represented by the existing information in diverse public and private agencies.

If one examines the parameters established by the plan in the area of scientific and technological information
as well as the results of the meetings held by the CNPq in 1975 and 1976 the following observations may be made:

• The distinction between information of a political-administrative nature, (above all, statistics and cadastral surveys), and specialised information of a scientific-technical nature (above all, documentary and bibliographic) is not reflected in the majority of the project/programmes on decentralised information:

• Decentralised information reflects a variety of objectives and different levels of scope and application resulting in a confusing gamut of activities. Some of these activities are only justified as resource-activities in science and technology.

• The projects/programmes do not take into consideration all the activities of scientific and technological information, even some which are foreseen as high-priority in its own PBDCT (for example, the Centre for Nuclear Information, CNEN);

• The projects/programmes are not based on a survey of real/potential demand for scientific and technological information in the respective areas.

The "universe" encompassed by the 11 PBDCT can be seen to be fragmentary, partial, unsystematic, besides the already noted lack of efficient and effective coordination of activities of scientific and technological information in Brazil.

Implications for library information

In reference to scientific and technological information in academic programmes: what approach is to be adopted? In undergraduate education which does not try to form planners of library information systems, should instruction limit itself to descriptive information about existing systems? Should the memorisation of names and data of the systems, national, sub-systems and foreign ones be required for the exams? Instruction which is solely informative/descriptive, that merely requires the student to memorise could cause him to have a passive and a critical receptivity, even though the modern technology used in information
conditions determined by the producer as well as their operating costs.

The conspicuousness of the gaps in the understanding of the scientific and technological situation is also important as a motivating factor for studies and research, principally for those students who are continuing their studies to the postgraduate level. Garcia\(^{(49)}\) indicated some of these gaps as being: lack of a systematic study of the national availability in terms of hardware, software, means of communication and tele-processing recovery and access to foreign data bases, as well as other problems associated with coverage duplication, language, cost, availability of documents, and users. Problems such as those related to communication and transport of documentation/information, such as availability, cost, and effectiveness have yet to be evaluated.

The themes of research and teaching will be taken up once again in the fourth part of this work. At this point we are merely suggesting certain areas which are poorly studied and might be indicated to students.
2.1.2. Education in Brazil; some historical considerations

In this section it is not intended to discuss the connections between education and libraries (a topic which has, in general, received more rhetoric than actual investigation) but instead to make a cursory incursion into historical aspects of education in Brazil. The sources on which this section is based are academic dissertations, since they not only have themes of a contemporary nature but also display an historical and well documented approach in relation to the educational system. The scientific treatment of the theme, education in Brazil, by Romanelli (50) for example, allows the summarised form to be assumed in the present piece of work. Due to the need to restrict its scope, there is a danger that only a superficial treatment is given. This is reduced through the references made to the original studies of Romanelli and Favero (51) among others.

In respect of the existing connections between library and education, a remark has to be made, however. Even if this connection is obvious from the point of view of libraries (the reading requires the individual to be literate, and, the more the individual progresses in his studies, the more he needs books, periodicals, reports and so on, which are principally provided by libraries), from the side of education this connection is not a clear-cut matter. Countries like Brazil, illustrate the situation where there is growth of the educational system without necessarily the development of libraries to the same extent: the curve of educational growth does not coincide with the curve of library development. History can contribute to the understanding of this situation.

One aspect that has not as yet been studied is the extent of library inclusion in the plans and reforms of the Brazilian educational system. Moreover, a study is needed to identify the extent of compliance with legislation requiring the existence of libraries in educational institutions. To provide only one example, the legislation
concerning the accreditation of both isolated institutions of higher education and universities makes clear reference to the need of the existence of libraries and specifies the minimum number of titles (books and periodicals) and the characteristics required in the collections. (52)

However, an examination of paracemis of the commissions nominated by the Federal Council of Education (CFE) to certify the fulfilment of the various required standards prior to the approval by that Council, indicates that the commissions are recommending the approval of courses without the accomplishment of the requirements for libraries. In several paracemis examined the safeguard was made with regard to libraries, followed by recommendations that the institutions concerned makes efforts to reach the pattern. (53)

A possible explanation why the CFE establishes laws which are not even achieved by the CFE itself, is to be found in the more general contradictions of the Brazilian educational system. There is a certain historical tradition in the country, that the organs responsible for policies and legislation establish laws without the corresponding concern for the effective conditions for their feasibility. (54)

The evolutionary process of education in Brazil

When the first colonizers came from Portugal to Brazil, their intention was quite different from that of the Protestants in relation to the hemisphere of North America. They came looking for wealth in order to restore their finances for a better life at the Lisbon court. Many of them did not become rich and stayed in Brazil. Others became very rich but did not return because they had learned to enjoy enormous freedom, and acquired a power comparable to that of the feudal lords of the Middle Ages. Only very few indeed, rich or poor, returned to Portugal. Those who remained in the country did not have time to care for education. Their survival in a tropical land caused them great troubles. After having verified that they were not able to exploit the soil and forest without the help of natives, they made them slaves.
However, the natives, whose socio-economic development had
not then reached regular and organised work, offered natural
resistance. The result was a permanent war between colonizers
and natives, which lasted a century. The wars against the
natives, the 'Indians', were troublesome, expensive and bloody,
and as soon as the economic conditions improved, they initiated
the traffic of African negroes.

The common people, not slaves, who lived in urban
areas, worked only for their subsistence as small artisans,
fishing, hunting, in police or military service, and other
minor activities. Therefore, it was not necessary to read
or to write.

In 1549 the Jesuits arrived in Brazil with the objective
of catechizing the Indians by inculcating in them the moral
patterns of Portugal. Such indoctrination represented a truly
aggressive act against the Indian culture, and as a result
their primitive values were destroyed. The arduous
mission of catechizing the Indians was followed by the mission
of educating the local dominant élite.

It was during the Renaissance and the emergence of
Humanism that Brazil received the Jesuit priests of the recently
organised "Companhia de Jesus". That religious order was
organised as a force against the religious reform. Therefore,
the destiny of being a new world and to compensate for what
the old one had lost, was reserved for Brazil. They arrived
in the country in search of the doctrine of authority and
the concept of social discipline and obedience to that
authority. Sociologically and spiritually Brazilians lived
the first three centuries under a theocratical regime,
implanted in that country to restore feudalism. Under such
a regime Brazilians were educated, shaped and truly governed
by Jesuit priests and other less numerous religious orders.
The education of those times was designed to prepare a small
group of educated people: priests and laics (lay preachers),
who were supposed to direct the society. That group was
at the service of 'senhores' (land owners) and the church.
The excellence of the Jesuit education system was not to
allow the autonomous exercise of intelligence, but to train
and keep the intelligence in complete and passive subordination.

In Portugal, the Jesuit had absolute monopoly of education. Whereas other European countries directed their studies to the pure sciences, the Jesuit education, mainly illustrated by the University of Coimbra (where they were established since 1555) defended the restoration of dogma and authority. Hence a medieval spirit even during the XVII Century. In contrast to Europe which was renewing its intellectual life, the University of Coimbra manifested repulsion to mathematics, experimental physics, and anatomy, refusing systematically the contributions (useless in its opinion) of Decartes, Newton and others, and continuing to emphasise the learning of the "major sciences", i.e. theology and rhetoric, classical languages, among others. Critics of Jesuit education comment that the Jesuits led Portugal, level by level, to a state of ignorance and servitude that history provides few examples. Such view is substantiated by way of that never had a power without arms been so absolute in any country.

Such a spirit was transplanted in the Brazilian colony through the implementation of educational institutions called "colégios", corresponding to a medium level general education.

"The kind of teaching and education adopted by Jesuits — a useful system for the needs of its main consumer, the Church, formerly organised by the clergy — seemed to satisfy totally the elementary demands of the society of those times, with its agricultural and slave structure. When it was not considered a mental luxury of the feudal and aristocratic group, education was nothing more than a means used for social discrimination of mestigos and mercantile bourgeoisie". (55)

The students who passed through the Jesuit schools were 5% of the population, but the great influence of this religious order is that their students originated from the politically and economically dominant class.

After the "colégio" those more wealthy students were sent to European universities, principally Coimbra and
Montpellier. The first for studies of philosophy and law, the second for medical studies.

The positive aspects of Jesuit education were that, besides the pioneer nature of their educational enterprise in the country, a certain cultural unity (ideological, political, linguistic and religious) was attained by the country through their pedagogical activity.

When the Jesuits were expelled by Marquis of Pombal, Primer Ministry of Portugal, in 1759, there were in Brazil 17 colégios, 25 seminários maiores (priest residences) in addition to some seminários menores and a few schools of reading, writing and counting.

The Marquis of Pombal was one of the "enlightened despots" of the Iluminism. He initiated the series of expulsions of which the Jesuits would be a target for the whole of Catholic Europe.

From the banishment of Jesuits in 1759 to the transplantation of the Portuguese Court to Brazil in 1808, a gap was opened of almost half a century, in which there was a large hiatus characterised by disorganisation and a decline of colonial teaching.

The Jesuit education survived its banishment, passing through the whole colonial and imperial period, reaching the republic (1829) without any significant structural change. Consequently for around three centuries and a half Jesuit influence in the country continued, with the new teachers as former students of Jesuit colégios being the natural followers of their pedagogical action. Therefore, it is understandable why primary schools had rested in almost complete abandonment, and secondary schools had assumed a preparatory character for higher education. 

The forced transfer of the royal family to Brazil (Portugal had been invaded by the French army in 1807) led to the creation of the first higher courses in order to attend the education of the aristocratic elite which composed the royal court.
After our negotiated independence from Portugal in 1822, Dom Pedro I, the Brazilian Emperor, created the Schools of Law in Clínicas and São Paulo, continuing the elitist tradition of Brazilian education. Before any attention was given to primary schools the first schools of the period were institutions of higher education.

In the XIXth century a middle strata emerged in Brazilian society, through the reinforcement of the internal market with the economy of mining. This intermediate segment, composed of individuals linked to journalism, literature and mainly to politics sought education as a means of gaining status in society. "Long ago the title of doctor had the same value as that of land owners, as a guarantee for the conquest of social prestige and political power". (5E)

This intermediate class associated with the values and interests of the upper class, since it depended on this last one for obtaining considered prestigious occupation, which involved bureaucratic, administrative and intellectual activities. Manual work had been stigmatized in Brazil and had been considered to be a degradation after 3 centuries of slavery within a dual society composed of owners and slaves.

However, such actions resulted in the existence of a contradictory situation, since, although on one hand this small bourgeois class had joined the upper class for reasons of dependency, on the other owing to its very condition of bourgeois class, it adopted the liberal ideas then in course in Europe. Such contradiction has led to the rupture between the two classes, with the predominance of the bourgeois ideas. The abolition of slavery (1888), the proclamation of the republic (1889), and the beginning of capitalism are indicators of the prevalence of bourgeois ideas.

The revolution of 1930, whose origins were linked more to the social contradictions of the 1920's, had the intense participation of the medium strata and of the ascending industrial bourgeois class. After 1930, Brazilian society initiated the elimination of the old oligarchic order, without eliminating it completely. The political regime then established manipulated the leaders of both factions by
accommodating old and new positions. The "Manifesto" represented the ideas of the medium strata; the legislation accommodated both, but the educational practice continued to represent the old conception. It is necessary to bear in mind that the industrial bourgeois class originated from the old rural aristocracy, and that the process of industrialisation then in course received contributions of both the human and capital resources of the rural aristocracy.

This industrial bourgeois class reproduced the models of behaviour and of education of their ancestors. The mechanisms used by this ascending industrial bourgeois class was translated into the scarcity of educational opportunities and the literary nature of the education.

The increasing urbanisation favoured by industrialisation gave place to an increasing demand for education. The teaching, which had been aristocratic in the past became selective; this is verified by way of well documented data. The changes required by this new demand, both quantitative and thematic, of teaching did not occur, with the result that a gap developed between the educational system and the requirements of the economic model. Owing to political interests, education was maintained within the limits of a rigid, selective and discriminating system. As stressed by Romanelli "the cultural heritage influencing the values sought after at school; the social demand for education and the nature of the political power (reflecting the antagonistic play of conservative and modernising forces, with the predominance of the former) resulted in the issue of directives concerning the expansion of education and the control of the organisation of the educational system in a way that was out of phase with regard to the new and increasing needs of economic development".

The economic order pressurised the Government for the creation of a parallel system of education to provide trained people for industry. The enterprises had direct participation in this kind of teaching and the training was oriented to accommodate their needs. The nature of industries of those times did require only semi-qualified workers, and thus a parallel system of teaching, provided at a very low
level, was highly convenient for avoiding claims for better salaries. "In this way the selectivity of the teaching in general, and the predominance of an academic teaching on a technical one, which apparently were in contradiction with the economy of the country, in reality was functional to this very order. The disintegration of factors of the old educational order, now received the usual adaptations, in such a way as not to alter the structure of the internal political domain." (59)

An outstanding problem showed by the evolution of history of education in Brazil is little or no attention is given to primary education in the country. However, any educational policy which is truly equalitarian will need to emphasise the first years of schooling. The cognitive development occurs, principally during the first years of life and is strongly influenced by the cultural environment of the family. More than emphasising the primary school, countries like Brazil with enormous social inequalities, should attempt to educate the child through kindergartens and nursery schools. Such factors are crucial in any educational plan, since it is within the first years of life that it is possible, and economically viable, to influence the cognitive development. (60)

A recent article (61) suggested the importance of developing libraries for children, especially on the periphery of large centres where the less favoured classes live. It is within those social classes that the children are exposed to a very limited sensorial experience due to the educational/social and economic shortcomings of their families. It was suggested a versatile collection made up of books, toys and games, and other audio-visual resources be provided. The provision of school "merenda" (meals provided freely to students by public schools) attend to the nutritional needs as well as contributing to the school performance of the student. In a parallel argument the library would contribute directly to the development of cognition and personality, and indirectly to a more equitable arrangement of educational opportunities.
There is a general consensus of opinion that the enormous educational problems in Brazil begin in the primary school.

For international comparison the table on the next page provides some data.
### EDUCATION IN SOME COUNTRIES - STAFF, STUDENTS and PUBLIC EXPENDITURE

<table>
<thead>
<tr>
<th>Country</th>
<th>1st level</th>
<th>2nd level</th>
<th>3rd level</th>
<th>Special</th>
<th>1st level</th>
<th>2nd level</th>
<th>3rd level</th>
<th>Special</th>
</tr>
</thead>
</table>

**RAW DATA SOURCE:** U. N. STATISTICAL YEARBOOK, 1976

1. Education given to children who are physically handicapped, mentally handicapped, socially maladjusted, or are in other special categories.
2. Expenditure of the central or federal government only.

---

As % of total public expenditure
2.1.3. The attempts made towards a Brazilian university

The various attempts to create a university or even higher schools in Brazil from colonial to monarchic times, were blocked by Portugal, hence making it evident that it had adopted a policy which avoided the development of a cultural independence of the colony.

The emergence of the first higher educational institutions occurred in 1806 through the establishment of isolated professional schools. The higher schools created in the period (Brazil had become the headquarters of the Monarchy) presented two main features: a clear professional nature and an orientation to prepare people for the various functions of the Court. The Royal Naval Academy was created in 1807, and the Royal Military Academy in 1910. Courses of surgery created in Rio de Janeiro were intended to prepare surgeons to work in the Army and Navy, respectively.

In the last years of the Empire (1879) there were in the country 2 schools of law (Sao Paulo and Recife); 2 of medicine (Rio de Janeiro and Bahia) 1 polytechnic, originated from the former Royal Military Academy, and 1 school of engineering (Curitiba, Minas Gerais, which, since the start of its existence was characterised by being adapted to the conditions of the local environment.

During the first years of the Republic there were many debates that concern actions for implementing a university in Brazil. Historically, the University of Rio de Janeiro is indicated as being the first Brazilian university. The decree n. 14,743 of September 7, 1920 which created the University of Rio de Janeiro, was a decree stating that a few professional schools then existent in Rio de Janeiro, viz. Faculties of Medicine, of Law, and the School of Polytechnics, were the University of Rio de Janeiro.

According to the historians such an event took place principally to give the title of Doctor Honoris Causa
to the Belgian King, Albert I, then visiting the country as part of the celebrations of the centenary of Brazilian independence.

The decree, by creating a university only in nomine, did not cause any change, and those schools continued to be run in the same way that they had been in the past.

Ideas of a true university began to emerge in 1831 through decree 19.951 of 11 April which established the "Estatuto das universidades brasileiras". Commenting on the "Estatuto" and the "Manifesto dos Pioneiros a Educação Nova" Pavez points out the presence in these documents of the triadic function of the university, viz. to elaborate science, to convey it to the students, and to popularize science by extending it to the society at large. (52)

The analysis of Brazilian education reveals that the directives for higher education in Brazil as presented in 1831 were rather advanced for that time and optimistic in respect of the reality of the country. Among the directives the concern for the social environment had little feasibility in a country where the few higher institutions then in existence were highly hierarchialized since their origins, and were rigid and elitist with little communication with society.

Actually the first university created and organized in accordance with the "Estatuto" was the University of São Paulo (January 25, 187) With the political regime implemented after 1877, the curriculum of the Faculty of Philosophy of that university had to submit to the rules imposed by the Ministry of Education. Such a faculty which had been created as the "fundamental nucleus or nervous centre" of the university was dissolved under pressures by the university environment reinforced by the new political regime.

A similar undertaking for an actual university (as opposed to the prevalent pattern of an agglomeration of several unconnected schools, faculties and departments) was to be attempted again in 1885 through the creation of the University of the Federal District (Rio de Janeiro). In
1969 this young university was extinguished by the Federal Government.

These frustrated attempts were to be repeated to a certain extent, with the creation of the University of Brasilia (Law 3.993 of 15 December 1961).

The University of Brasilia was based on a triadic structure composed of (i) central institutes for teaching and research; (ii) faculties responsible for the professional education; (iii) complementary organs to function as centres of extension. Emphasis was placed on the role to be played by the central institutes. They were to be responsible for the offer of basic courses for the professional courses and to function as centres of research, for the formation of scientists and humanists at both undergraduate and postgraduate levels.

This experience which represented a consensus among Brazilian educators could not follow its normal course. The gradual implementation of the University of Brasilia implied that it would commence as a centre for higher studies. This would establish the postgraduate education and following this undergraduate courses would be implemented.

However, pressures were put on the University of Brasilia by the population that was transferred to the new capital (mainly Civil servants) requiring an immediate professional education for their children. Additionally, the political events of 1964 caused the reformulation of the original project. Between 1964 and 1965 several lecturers, owing to ideological implications were retired from the university. A collective renunciation of high level lecturers assembled from various parts of the country and from abroad happened after the governmental intervention within that university.

However, several basic points of the initial project of the University of Brasilia were to be readopted later by the university reform in the country.

All the analyses that have been made up to the present time have indicated that the main failure of such
a reform which is being implemented in the country is that it has not succeeded in integrating teaching and research. With a few exceptions extension activity continues to be unsystematically made. The internal forces which shaped the development of university education in Brazil have, in recent years, been influenced by the expanding internationalisation of the Brazilian economy. The establishment in the country of multinational corporations, the increasing amount of foreign capital entering the country in association with local entrepreneurs caused the destruction of the traditional mechanisms used by the middle classes to rise in society.

According to Cunha, the economic policies adopted in the country from the middle of the 1950's onwards led to an intensive concentration of property, capital, market and income in order to support the implementation of the big enterprises (producers of durable goods and foundation industries). The tendencies towards concentration reached even the business and the tertiary sector by the flourishing of medical, juridical and technical assistance services. The increasing competition of these powerful enterprises intensified the difficulties of the small industries, artisans, independent offices, small shops - exactly the channels used by the middle and lower classes for their social uprising. On the other hand new opportunities were offered in the hierarchy of the big enterprises for jobs requiring both medium and higher level education. This resulted in a greater demand on the university without the occurrence of increase in the vacancies. The reinvocations of the students in the 1960's were for more vacancies and more resources for education, as a consequence of the economic model adopted in the 1950's. After 1964 when a new political order was established new measures adopted contributed to aggravate the crisis. These measures were adopted to restore the finances of the country and would not allow the expansion of the educational system at the same time. The political power was then exercised to restrain the social interests for innovations and the expansion of opportunities. This policy would be later changed with the authorisation for the expansion of the educational system.
Such expansion, however, would occur principally in the private sector. The graphics below provide a clear picture of this expansion.

**BRIZIL - Evolution of higher education between 1969-1974. Number of vacancies and enrolled students according to the administrative dependency.**

![Graphs showing the evolution of higher education between 1969-1974](image)

<table>
<thead>
<tr>
<th>Year</th>
<th>EM 1.000</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969</td>
<td>100</td>
</tr>
<tr>
<td>1970</td>
<td>200</td>
</tr>
<tr>
<td>1971</td>
<td>300</td>
</tr>
<tr>
<td>1972</td>
<td>400</td>
</tr>
<tr>
<td>1973</td>
<td>500</td>
</tr>
<tr>
<td>1974</td>
<td>600</td>
</tr>
</tbody>
</table>


In: FAYEC, M.L. de Albuquerque. A universidade en busca de sua identidade. 1977

When the Law-decrees 252 of February 1967 withdrew from the students their national representation by limiting this representation to the sphere of each university, and forbade any manifestation or propaganda of a political, racial or religious character by means of repressive measures to assure its accomplishment, the students made total
of pilot experiences. As a result, the financial assistance has benefitted more the donor than the recipient country.

Since the decade of 1950's several agreements were signed between the Brazilian government and the United States Agency for International Development (USAID). From that date to 1965, 16 agreements were celebrated, reaching all levels of the Brazilian educational system. However, the historical importance is principally ascribed to agreements related to higher education, between 1965 and 1967 which led to the climax of discussions and the rigorous criticisms made. These referred to the statement of Brazilian incompetence by accepting such a situation, as well as the certificate of cultural dependency.

An analysis of the evolutionary process of the university in Brazil [57] concluded that:

The modern idea of university as such was conceived in Berlin, in 1810, by Humboldt, with the purpose of creating new knowledge, and is still largely an abstraction in the country, in spite of the emphasis placed on these ideas by some Brazilians in their studies on the matter. The University of Berlin since its origin integrated both research and teaching and its main characteristic was the discovery and formulation of the science to be taught, besides playing an active role in the great changes experienced by Germany in the beginning of the past century.

In Brazil, the tradition of higher education has been to offer higher courses in isolated schools, faculties and departments. The main failure of the Brazilian university has been the disassociation between teaching and research in the basic areas. In spite of the emphasis placed by the university reform on research, the main activity continues to be teaching.

It is very significant that the title of this study on the evolution of the university in Brazil is: The Brazilian university in the search for its identity.
It is within this general present situation of Brazilian university that a group of library lecturers (an area not as yet recognised by Brazilian society at large) proposes to initiate basic changes in the education of librarians in Brazil. Even when not very favourable conditions are present for this endeavour to be attained, it has to be seen within that more general movement of Brazilian educators, always recommended, for the creation of a true university in the country. The experiences of 1931 and 1935, the attempt made in Brasilia in 1961, the reform of the Brazilian universities started in 1968, are all parts of this more general process.

The new minimum curriculum makes explicit reference to the educational system of the country as one of the topics to be grasped and integrated into the universe of library studies. This is coherent with the principles underlying the proposal, viz. of not considering library education as an isolated specialization, but rather as an integral part of the social process and having a reciprocal dialectical relation with it. An understanding of the educational system within an historical frame of reference and within the totality of the social process is essential in order to understand its present situation and the root causes of its enormous problems.

Contrary to library education history in the country (and also to some extent abroad) which has not as yet been studied in the above approach, the history of education in Brazil has been studied within a broader framework.

Through the study of the history of education many insights can be gained by librarians for the understanding of library education in the country and the situation of school and public libraries in the country.
2.1.4. The teaching of history of Brazil at secondary school; a thematic illustration within the educational problem

History has been stressed as the most important yardstick and test of the validity of the theories of social services. Szentés (63) extends further the importance of history by stating: "It is impossible to bring about a deliberate and purposeful change in the present without knowing how this present state came about... Descriptions, surveys or even preference graphs may be useful in assessing the measure of the phenomena in question, but they don't tell us anything about its cause, and so, in consequence, they are unsuitable for any practical policy of change". It has been recognised that it is impossible to develop social studies without a foundation in history.

For librarianship, the importance of history derives not only from the social basis of the discipline, but also from its function of collecting and organising documents which are the instruments for historical investigations.

The production of masters' and doctoral theses in social sciences has increased significantly in the last seven years, and as a result of their publication a series of studies on important aspects of the socio/cultural reality of Brazil are now available. Among these studies there are a few concerned with the teaching of History of Brazil at the secondary school. These are especially important since this level of education provides the students with the basis for university studies. This argument also applies to library students who may follow basic studies in social sciences, prior to their professional education.

It is worth summarising the conclusions of a doctoral dissertation which analyses the teaching of history of Brazil in the secondary school, by way of examination of textbooks most used at this level of education during 1976. The results indicated that history is conceived as a method
of explaining truths which are considered a priori to be truths, without however corresponding, necessarily, to the historical facts. In the examined textbooks the ideology of tradition is present, outspokenly praising the state government and its collaborators. History results, then, in the report on the state administration and not as the history of the people, their existence, behaviour, and manner of understanding the world, or of their struggle to organise themselves into a society, or of their struggle for survival. The historical approach puts more emphasis on both the cult of personality and the cult of a naive patriotism; it does not provide evidence for the statements made; dogma prevails rather than the critical mind.

History is developed as a mere description of past facts with emphasis being placed on secondary details and meticulous chronology, to the detriment of reflections on important problems. The author of the study links this conception of history, as presented in the examined textbooks, to the influence of Jesuit education, as well as the influence of Thomist/Aristotelian philosophy in our educational system. A further observation resulting from this study was that the examined textbooks on the history of Brazil for secondary schools present a picture which is frozen in time; their accounts have not benefitted from the social science studies. They are contributing to the development of negative attitudes towards objectivity, fidelity to truth, and to critical analysis.

The collaborative study of Cerqueira Filho (political scientist) and Nader (history) analysing 37 textbooks used by the state network of secondary education (70) focused on the "violence of hiding the violence in the history of Brazil". By quoting several parts of these textbooks they call attention to dramatic facts of our history, such as "aculturation", the dismantling of Indian tribes, the taking of their lands and their genocide. Such events are deliberately not mentioned. Negro slavery is analysed "under the optics of negro inferiority, as if they had been slaves in Africa". The most violent stages of our history are
disguised and the capture of Indians is presented as "their participation by way of acting as guides". Slavery is manipulated as if it was "neutral and indispensable", or the only form of obtaining hands for labour. The slavery problem is treated in close connection with racial miscegenation. The mixture of races is emphasised and the myth of racial democracy is always present in these textbooks. The problem of "latifundios" is treated as a form of occupying the land. "How latifundios emerged, what they represented in the past and what they continue to represent in the present as sources of some evils of our social structure are not taken into account in these textbooks."

From the bibliography that was investigated, we extracted the attributes and qualities which would form the "conciliator" Brazilian stereotype. The most important characteristics are: to have a religious outlook (present in 83.2% of the examined textbooks), followed by individualism (74.9%); sense of public spirit (74.9%), and cordiality (66.6%).

According to the authors of the analysis, these characteristics are "interconnected attributes required for non-violent behaviour, this being reinforced by the Brazilian vocation towards conciliation. This is an image of the typical Brazilian which is manipulated by the dominant classes, and which has been shown to be effective for their purposes." (73)

The distortion of the teaching of history is not characteristically exclusive to secondary teaching in Brazil. After World War II, UNESCO stimulated the study of history teaching through the analysis of textbooks on the subject, especially national histories. These studies have shown that the tendency in the majority of those countries that were examined, was to praise the country's virtues, and to justify conflicts amongst nations as being the result of alien aggressions. The majority of them place emphasis on the political history and military campaigns to the detriment of thoughts, religions, arts and technology. (74)

The examination of critical studies into the teaching of history in Brazil leads one to consider that the contributions
of important historical studies such as the book of Cenzo Furtado on Brazilian development within the perspective of economics, and those written by the historians Caio Prado Junior, Jose Honorio Rodrigues, Sergio Suaque de Hollandia among others, were not taken into account by the authors of the examined textbooks on History of Brazil.

As a consequence of the distortions of textbooks concerning the history of Brazil many of the conceptions of the students have to be rebuilt at the university level, which is time consuming. The social sciences Department of the Federal University of Minas Gerais has shown concern over the time available for a proper development of its programme, when faced with the deficiencies shown by the background of the students.

A background account of studies critically assessing the content of history textbooks enables identification of important social, economic elements that are misrepresented or completely omitted during the course of the teaching of history.

The presence of the Latifundios, mentioned in these studies, are strongly associated with several social problems such as the miserable condition of rural workers, the generation of "favelas" (urban slums) in Brazil, Agricultural productivity, and income concentration.

Some idea of the problem of land concentration in Brazil can be obtained by comparison and contrast. For example, the amount of land a person may legally own is 403 hectares in Cuba (a private person or a corporation); in Mexico, 120 hectares of irrigated and 120 of unirrigated land; in Bolivia the limit varies according to the geographical zone. Brazil has no such restrictions. Statistically speaking, Latin America has the highest index of concentrated accumulation of rural property in the world. There are families or group of inter-related families in Argentina, Brazil, Chile and Venezuela, of which each has more land than several countries put together. This is a situation with no parallel elsewhere.
The levels of income of rural workers are so low that frequently the whole family must take employment, including the children of less than 16 years. Consequently, it is evident that education at the appropriate age is impossible.

The hard conditions of work in rural areas, especially in the drought-stricken north-east region, have provoked the drift of increasing numbers of migrants to the big towns. The demographic census of 1970 by the Brazilian Institute of Geography and Statistics (IBGE) showed that 20 million of the Brazilian, or one third of the population, were migrants. 10% of this total contribute to the flow that leaves the countryside in the direction of the towns. In 1977 the Ministerio do Interior (Ministry of the Interior) estimated that 50% of Brazilian population had become migrants to the towns, leaving their agricultural activities. The reasons for this massive abandonment of agricultural activities are various, but can be summed up as due to lack of conditions that would provide the basic needs of the agricultural workers for their survival. Independent of whether or not the conditions in the town are better, the rural population, pressed by difficulties, is pushed to towns in the search of other alternatives.

According to data of the National Institute of Colonization and Agrarian Reform (INCRA) properties of less than 100 hectares represent more than 90% of the land properties in the country and represent less than 20% of the total area surveyed, but are responsible for more than 50% of the basic harvest produce as well as for products for subsequent industrial transformation and for horticulture. In reality, according to INCRA, land properties of more than 2000 hectares, although representing 40% of the country's rural area contribute less than 10% of the total harvest. These properties principally affect sugar cane production and forestry.

Recent mechanisation has not been followed by the adoption of corresponding measures for the absorption of the liberated rural worker. A similar discrepancy has occurred
at the level of the commercial structure, when less than half of the country's landlords do not have any form of crop storage, remaining, therefore, at the mercy of speculators and being obliged to sell their produce at the highest point of crop production, when international prices are less attractive.

In conformity with the Agrarian Census of 1970 (1972) whereas the rural properties up to 20 hectares use almost 100% of their area, and the properties between 100 and 200 hectares use 72%, those over 1,000 hectares use only 11% of their area.

Income distribution has always been very unequal in Brazil. It has, however, become much worse within the two last decades. Costa, (77) by examining the Brazilian income distribution within an international perspective shows the country to be among those 6 having the largest income concentration from the total of 50 countries that were examined. In only 5 countries is income concentration larger than in Brazil, viz: Gabon, Colombia, Peru, Panama and Iraq.

Professional studies are, or should be, responsible for the students to become more fully aware of their environment and for investigation of problems connected with their studies. The discipline, specialist bibliography on science and technology now includes a systematic discussion of the problems faced by science and technology in Brazil. (77) Thus, perhaps, isolated example is worth the study of other specialist bibliographies.

The discipline Bibliography of Agriculture which is in some instances studied separately from other technologies, could include topics on the problems of agriculture in Brazil. Even a cursory examination would have to deal with problems such as the concentration of land and agrarian reform.

It is easy to state that solutions to these problems lie beyond the capacity of the information professionals. Nevertheless, the design of library and information systems is the responsibility of such professionals and such systems
should be constructed with a view to serving individuals and not just for the large bureaucratic machines and companies. The question may well also be asked: are systems designed and developed with their completion being the sole objective, rather than as a means to improving channels of information communication for the benefit of individuals?

The abstention of librarians and information specialists from questions of ethics has been discussed elsewhere. It is possible to find grounds for arguments supporting all the divergent opinions held regarding professional ethics in this area. On balance, however, arguments tend to favour a neutral instance by the profession. The question and comment raised by Renge on this matter, i.e. "Can we be neutral about illiteracy or objective about disease? It is because the profession is so often neutral that it has sometimes made little impact" [70] deserve the reflections of the professionals concerned in Brazil.
2.1.5. Illiteracy in Brazil, an historic and recurring problem

The fact that the percentage of illiterates within a country is one of the most significant social indicators of its level of development has led the governments in developing countries to produce massive literacy campaigns. In Brazil such campaigns were in existence as long ago as 1930.

The table below shows illiteracy rates from 1900 to 1970:

ILLITERACY IN BRAZIL

<table>
<thead>
<tr>
<th>Years</th>
<th>Total population</th>
<th>Population of 15 years and more</th>
<th>Illiterates of 15 years and more</th>
<th>Illiteracy rate %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1900</td>
<td>17,438,434</td>
<td>9,752,111</td>
<td>6,371,660</td>
<td>65.3</td>
</tr>
<tr>
<td>1920</td>
<td>30,635,605</td>
<td>17,557,282</td>
<td>11,401,715</td>
<td>64.9</td>
</tr>
<tr>
<td>1940</td>
<td>41,326,315</td>
<td>23,709,769</td>
<td>13,269,381</td>
<td>56.0</td>
</tr>
<tr>
<td>1950</td>
<td>51,944,397</td>
<td>30,249,425</td>
<td>15,272,632</td>
<td>50.5</td>
</tr>
<tr>
<td>1960</td>
<td>70,119,071</td>
<td>40,187,590</td>
<td>15,865,792</td>
<td>39.4</td>
</tr>
<tr>
<td>1970</td>
<td>93,139,037</td>
<td>54,008,604</td>
<td>18,146,977</td>
<td>33.6</td>
</tr>
</tbody>
</table>

Source: IBGE. Censo demográfico.

One can see that illiteracy has increased in absolute numbers, but has decreased in relative terms.

According to UNESCO an illiterate is a person aged fifteen or more who does not know how to read and how to write a short text in any language. The concept adopted in Brazil is similar. Lourenço Filho[91] points out that before 1950 the criteria for evaluating statistical data related to illiteracy in Brazil were less rigorous. Until that date literates were those who simply had answered positively to the question "Do you know how to read and how to write?" Only in case of doubt the person was invited to write his name.

The census of 1970 found out that despite the fact that the urban population is larger than the rural one, the latter had a higher rate of illiterates:

<table>
<thead>
<tr>
<th>Urban population (age 15 or more)</th>
<th>Illiteracy rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>31,936,574</td>
<td>19.9%</td>
</tr>
</tbody>
</table>
Rural population (age 15 or more) | Illiteracy rate
---|---
22,072,030 | 53.3%

These results are explained by the poor life conditions in rural Brazil. Schools even when existent in those areas face the evasion of children of less than 10 years to integrate the labour force.

The table below compares Brazilian illiteracy rate to that in some other countries.

**ILLITERACY IN SOME COUNTRIES - 1970**

<table>
<thead>
<tr>
<th>Countries</th>
<th>Illiteracy rates</th>
<th>Countries</th>
<th>Illiteracy rates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolivia</td>
<td>60%</td>
<td>Argentina</td>
<td>9%</td>
</tr>
<tr>
<td>Peru</td>
<td>39%</td>
<td>France</td>
<td>2%</td>
</tr>
<tr>
<td>Brazil</td>
<td>34%</td>
<td>Italy</td>
<td>2%</td>
</tr>
<tr>
<td>Ecuador</td>
<td>33%</td>
<td>Japan</td>
<td>2%</td>
</tr>
<tr>
<td>Colombia</td>
<td>27%</td>
<td>Switzerland</td>
<td>2%</td>
</tr>
<tr>
<td>Paraguay</td>
<td>26%</td>
<td>USA</td>
<td>2%</td>
</tr>
<tr>
<td>Chile</td>
<td>13%</td>
<td>Denmark</td>
<td>1%</td>
</tr>
<tr>
<td>Uruguay</td>
<td>10%</td>
<td>Sweden</td>
<td>1%</td>
</tr>
</tbody>
</table>

Source: BRASIL. Ministério da Educação e Cultura. Suinere LEBRAL a leia Brasil.

When one examines the illiteracy problem in the country, a characteristic that stands out is what Paiva calls "the Brazilian characteristic of ignoring past experiences, so resulting in a loss of nationally accrued knowledge". Each campaign is set in its own right, and previous experiences and lessons are not used. The campaigns developed by the Ministry of Education between 1947 and 1963, for instance, covered an enormous student population, many of which relapsed into illiteracy again.

In the 1960s, for instance, the Brazilian Catholic educator Paulo Freire developed a literacy method based on the principle of "conscientiousness", by means of raising literacy and political education of the population. Operationally his method was based on the use of relevant words to the ordinary life of the Brazilian population. A word like *water*, for example, is crucially important for the peasants of the drought-striken Brazilian north-east. His method which provided the basis for the important Movement for Basic Education (MEB) developed
in 1961 by the National Conference of Bishops of Brazil \(^{(54)}\) has brought about a deep country-wide repercussion. With the 1964 revolution, the educator Paulo Freire and his method were banished from the country under the accusation of subversion. In reality, as explained by the educator Oliveira Lima \(^{(55)}\) Brazilian politicians were afraid that the "phenomenon could alter the balance of voting".

Following MEB came the "ABC cruzada" supported with financial resources borrowed from the USA. Under American guidance this campaign reached in 1969 around 300,000 people, and concentrated its activities in those states where a strong political mobilization had been noticed. The need and concern for the new government acceptance by the population had become crucial, especially after the establishment of Institutional Act number 5.\(^{(*)}\) In addition the "Brazilian miracle" required a certain literacy of the population migrating from rural areas in order to integrate the modern productive system. The American presence was justified by the Brazilian inexperience on literacy matter, something which was entirely "new among us".\(^{(56)}\)

Owing to the increasing opposition to the ABC cruzada, MOBRAL was created by the Brazilian authorities in 1967 (Law 5,379 of the Federal Congress) and started its field action in 1970. MOBRAL's objective was to bring the illiteracy rate down to 10% of the total population by 1980.

The 1970s were, therefore, the MOBRAL's decade, and interest should be directed to its action. How is MOBRAL being operated?

MOBRAL has carried on vigorous propaganda both within the country and externally, but to the measure that time goes by and critical studies come to light a more realistic picture may be known.

In accordance with the data presented by MOBRAL for the period 1970-1975, its programme has reached a high number of literates, i.e. 8,657,054, but when one examines the number of enrolled students, 21,334,410 in that period, one finds that only 40.5% of the students had succeeded.

The data provided by the IPEA's study \(^{(57)}\) illustrates better this situation, as it includes also the enrolled and successful students in the programme of integrated education.\(^{(58)}\)

* See chapter two
HOBRAL SYSTEM
ENROLMENTS AND SUCCESSFUL COMPLETIONS
(Thousand people)

<table>
<thead>
<tr>
<th>Years</th>
<th>Functional literacy (1)</th>
<th>Integrated education (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Enrolled</td>
<td>Completed</td>
</tr>
<tr>
<td>1970</td>
<td>510 (100%)</td>
<td>170 (33%)</td>
</tr>
<tr>
<td>1971</td>
<td>2,570 (100%)</td>
<td>1,093 (44%)</td>
</tr>
<tr>
<td>1972</td>
<td>4,285 (100%)</td>
<td>2,016 (47%)</td>
</tr>
<tr>
<td>1973</td>
<td>5,033 (100%)</td>
<td>2,013 (40%)</td>
</tr>
<tr>
<td>1974 (3)</td>
<td>2,574 (100%)</td>
<td>1,210 (47%)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>14,972 (100%)</td>
<td>6,502 (43%)</td>
</tr>
</tbody>
</table>

Source: IPEA, CASTRO, C.M.

(1) Basic course, 5-6 months duration
(2) Basic extension, with the same duration
(3) First semester
(*) Estimated

What is clearly shown by the table is that only 18% of the students enrolled in the basic course go to the extension course, and only 4% succeed in it.

The importance of integrating education and work has been emphasized in several studies. It is worthwhile to mention the article of Ursula Albertus on the literacy programmes in Ecuador.

In November 1974 the researcher Moura Castro from the IPEA (Institute of Economic and Social Planning) concluded an investigation document on MOBRAL and illiteracy in Brazil. None of the several suggestions presented in this document were considered by MOBRAL, in practical terms. But the study's prediction that a relapse into illiteracy would occur, (opposed to MOBRAL's forecast of a reduction in the illiteracy rate to 10% in 1980), is now corroborated by IBGE.

From 1973 to 1976 the percentage of illiterates among people aged 5–9 years has increased by 17.7%, and in the population of 10 years and more, around 18.0% as the table on the next page shows.
ILLITERACY IN BRAZIL
(Thousand people)

<table>
<thead>
<tr>
<th>Regions</th>
<th>Total populat. between 5 and 9 yrs.</th>
<th>% of illiter. between 5 and 9 yrs.</th>
<th>Total populat. more than 10 years old</th>
<th>Number and % of illiterates more than 10 years old</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rio de Janeiro</td>
<td>1,223</td>
<td>1,152</td>
<td>500</td>
<td>610</td>
</tr>
<tr>
<td></td>
<td>(41%)</td>
<td>(53%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>São Paulo</td>
<td>2,501</td>
<td>2,366</td>
<td>1,229</td>
<td>1,279</td>
</tr>
<tr>
<td></td>
<td>(49%)</td>
<td>(54%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paraná, Sta. Catarina, Rio Grande Sul</td>
<td>2,701</td>
<td>2,633</td>
<td>1,341</td>
<td>1,541</td>
</tr>
<tr>
<td></td>
<td>(50%)</td>
<td>(55%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minas Gerais, Espirito Sto.</td>
<td>2,066</td>
<td>1,930</td>
<td>1,078</td>
<td>1,184</td>
</tr>
<tr>
<td></td>
<td>(52%)</td>
<td>(61%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maranhão, Piauí, Ceará, Rio Gôa Norte</td>
<td>4,742</td>
<td>4,876</td>
<td>3,126</td>
<td>3,945</td>
</tr>
<tr>
<td></td>
<td>(66%)</td>
<td>(61%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paraíba</td>
<td>13,233</td>
<td>12,957</td>
<td>7,274</td>
<td>8,559</td>
</tr>
<tr>
<td></td>
<td>(55%)</td>
<td>(66%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>13,233</td>
<td>12,957</td>
</tr>
<tr>
<td>Variation 1973/1976</td>
<td></td>
<td></td>
<td>-2.1%</td>
<td>17.7%</td>
</tr>
</tbody>
</table>

Source: IBGE PESQUISA nacional por amostras de domicílios (PNAD) 1973 e 1976.

Noura Castro had pointed out in the first chapter of his study: "one may not exclude a priori the hypothesis that many people never come to learn to read and to write, that many relapse into illiteracy after a certain amount of time, or even that for many, literacy will never change their basic perceptions of their economic productivity."

In the second chapter the impact of MOERAL on society is investigated: "... MOERAL has an enormous responsibility to its students. These are in their majority, people to whom society has denied its benefits and whom it has frustrated through their marginal
position in society. A serious question of social justice is the satisfaction of the level of expectations created by MOBRAL. If promises of literacy and its subsequent benefits are no more than chimeras, we will be once more frustrating exactly those to whom frustration has been the most predictable constant in their lives."

Houra Castro also relates a series of experiences accumulated in literacy courses. One of the conclusions arrived at in various parts of the world is that problems of physical health both in adults and children hamper learning. Here he quotes another research study, a Masters thesis by Speranza, "The clientele of MOBRAL", where it is disclosed that 39% of MOBRAL's students have shown problems of health, nourishment and vision. The suggestion was made in the sense that MOBRAL should be more selective.

The very character of MOBRAL as an institution was questioned in another part of the study by pointing out that instead of modernizing our bureaucracies we are systematically opting for the creation of new organs in order to attend to more urgent problems. There is in consequence an inconvenient superimposition on the old bureaucracies. He points out MOBRAL as one more new bureaucracy superimposed on the old bureaucracy of the Ministry of Education.

Another point discussed in his study is the course's duration which is compared to other countries. In the Soviet Union, for instance, in the post-revolutionary period the literacy programme lasted 4 years. In Israel it lasts 4 years, followed by 3 years more, where the continuation of the process is emphasized. Short courses are particularly intensive. The Israeli army, for example, has a three month programme, but with 7 hours of classes daily, followed by two additional hours of individual study. This point is reinforced when he points out: "The psychology of learning reliably shows that there are thresholds and discontinuities in the acquisition of certain skills and knowledges. Without the attainment of minimum practice and level of mastery regression may occur."

Another Masters dissertation on the agrarian reform of Iguatemi (Rio de Janeiro) investigated 785 families whose members were classified within 3 educational levels: literates, semi-literate and illiterates. It was found that the educational level very rarely explains relevant differences with relation to agricultural practices. For example, there is no significant difference among the 3 groups with relation to crop types, planting methods, use of pesticides,
seasonal cultivation, rotation of crops, use of profits, and co-operative and union organizations. For this reason "it makes sense to state that, the reading and writing habits being so peripheral in these individuals' lives, only well conducted literacy programmes of long duration will guarantee the permanence of this knowledge." The author goes on to say "Except in projects where education and work are truly integrated, the school cannot rapidly leave the literate. Not before having fixed writing and reading habits." 

The difficulties in analysing the role played by libraries in relation with MOBRAL programme begin in the very lack of general empirically based study. Library statistical data do not identify separately the MOBRAL reader. Even if there were a direct participation of librarians at the planning level of the MOBRAL programme, such participation is not largely divulged.

There is no record of works reporting library participation in MOBRAL's programme either in library national conferences or in the specialized literature. It is known that a few libraries act in a subsidiary role, setting aside a room to be used as MOBRAL office.

At the operational level of the MOBRAL programme the work has been accomplished mainly by "laymen". In the IPEA's study it is stated that in 1972, around half of the teachers of MOBRAL had not completed primary school and only 13% had completed secondary education.

MOBRAL informs that in 5 years action the programme had distributed 136 million copies of books and 215 educational newspapers to both urban and rural schools.

The question of book distribution versus book lending seriously deserved investigation. If a large number of copies may reduce printing costs, this alone has not led MOBRAL to publish the larger variety of material that the programme now seems to be requiring.

The examination of the printed material distributed by MOBRAL shows its characteristics adequate, including large type, simple vocabulary and variety of illustrations. But the limited number of publications after 8 years operation, especially if one considers MOBRAL's goal of integrating education and work (that as
seen before is not being accomplished) inevitably leads us to the question of whether it is not more profitable to publish fewer copies but in more variety and to use other resources from public libraries and reading rooms, where existent.

The now disclosed data on relapse into illiteracy published by IBGE clearly show the need or the opportunity for studies and experimental projects testing the hypothesis that library programmes parallel to literacy ones may prevent relapses into illiteracy.

Such considerations concerning the programme of literacy in Brazil were here discussed to such an extent not only because new literates are potential library users but also in accordance with the objective of one of our post-graduate programmes in library education in this country. This objective is formulated as follows: "To prepare professionals capable of effective participation in the programmes of adult literacy and further education". (??)

In 1972 it was stated by Jackaman: "Librarians disinterest in literacy reading is made apparent by the almost total lack of professional literature on the subject". (??)

In the USA the 2% of illiterates in her population have deserved the ALA's statement: "It is the responsibility of those directing the government's educational agencies, of which the public library is one, to work aggressively and creatively to increase the opportunities for people of limited reading ability to reduce their ignorance and to include them among those who are reading". With regard to the ways to accomplish with the above responsibility ALA suggested the following summarized guidelines for illiteracy programmes:

- promotion of literacy programmes and library involvement in literacy programmes by means of raising public concern through such activities as the 1979 White House Conference on Library and Information Services.
- the provision of literature should be geared to their reading or slightly above, with help in interpretation,
- the provision of books and associated materials to those organisations or bodies which are engaged in literacy work,
- the promotion of library extension activities which could be of value to illiterates: film programmes, book talks, and discussion on citizenship, health, consumer information and other topics can be used to interest and involve adults beginning to read.
Kiribige (99) questions whether the librarians in developing countries have a role to play in the campaigns against illiteracy, and whether they have tailored their library systems for the basic illiterate communities. In Brazil the indications suggest that a response has not yet been found to these basic questions.

For the time being it appears that the most logical first step in the direction of library participation would be concerned principally with field study with the objectives: (i) of detecting the actual library involvement with the MOBRAL programme, (ii) of identifying the problems to be overcome in order to assure a more effective library participation, and (iii) of formulating a library policy to be developed jointly with the MOBRAL programme.

At the undergraduate level a place could be found in the curriculum to deal with the illiteracy problem, by including topics on past literacy campaigns conducted in the country, with emphasis on the present campaign (MOBRAL) and its actual results. Not only to incorporate research findings in course content as well as to highlight reading problems to be investigated. The students involvement could be attempted through practical work in the selection of suitable materials for beginning readers using the public library collections, besides the usual selection tools. This practical work would include contacts with local literacy agency in order to know their programmes for integrated education and the examination of the printed material distributed by MOBRAL. Lectures by specialists on adult education about criteria for evaluating reading materials for the new literate should be programmed.

In Brazil we are still without much of the studies necessary to have a better knowledge about the new adult reader, his characteristics, reading behaviour and reading needs, and this is crucial for libraries for more effective reading guidance. MOBRAL has sponsored investigation studies by professionals of other areas, (100) an indication that research funds may be available. However, librarians have first to assume that it is up to them "to envision services in special materials and reading guidance not only during the first stages of learning and acquiring reading skills, but also during all subsequent stages in a continuing service that ensures the adults use of reading materials meaningful to all aspects of their lives, and achievement of independence and self-direction in the use of such materials." (102) The interest in investigating the related problems will be a corollary of this assumption.
2.2 The situation of libraries in Brazil: a critical overview

Analytical studies on the Brazilian library/information situation are almost nonexistent, therefore making it difficult to develop an overall assessment of the situation. Only recently, qualitative evaluations of libraries began to be produced as a result of masters dissertations and of other studies. This output is still low and fragmented, but combined with quantitative information it may offer a general idea of the situation.

The first part of this section will discuss quantitative information on libraries based on data provided by the Brazilian Institute of Geography and Statistics (IBGE) covering such topics as: collection size of different types of library; the regional library distribution; library development during a 7 year period and a comparison of this development with some sectors of the national economy; library use; the extent of unprocessed material, and library staffing. As a framework for comparison, data for other countries besides Brazil will also be provided.

The second part will refer to conclusions of some existing studies that have evaluated various aspects of information systems and libraries in Brazil.

Quantitative data

Over the years the IBGE has changed its criteria in relation to libraries included in its statistics. In 1965 for instance, it registered the existence of 9,743 libraries in the country (national, university, school, special, and public). In 1974 (the most recent available data) school libraries were not included, and the public library was replaced by the designation "popular library". IBGE does not include the "reading rooms" which have been established by the National Institute of the Book (INL). Regardless of the variations of the library concept adopted by IBGE, the data presented is the most inclusive data available, in spite of a considerable delay. The 1978 IBGE yearbook contains the 1974 statistics.
The first fact is the uselessness of attempting to compare the data with patterns suggested by IFLA, or other patterns.

Taking into account the standards relating to public libraries of the International Federation of Library Associations (IFLA), and considering that the estimated population of Brazil in 1974 was 104,243,300 inhabitants, it is estimated that there should have been twenty times more books available in Brazilian public libraries for that year.

The large difference between the IFLA standards and that found in Brazil raises questions in respect of the factors taken into consideration by IFLA as a basis for its suggested standards of library and information services. Doubts may be raised as to whether factors such as, the percentage of illiterate people in the population: the virtual impossibility of access to books by the hinterland population and the difficulties of getting books to such regions owing to the lack of roads and transport (the development of a mobile book service has to be reconsidered in the light of the constant increase in petrol since 1973), and also the stage of development of the book trade have been considered. The stage reached in the development of public libraries is influenced by all these factors and not just by any particular one of them.

A more general picture of the extent to which countries...
are adhering to IFLA's standards is given in data provided by the table on page 119. This shows that even in developed countries, which obviously do not suffer from the problem of illiteracy, population distribution, roads and transportation to anything like the same extent as developing countries, IFLA's pattern of two books per inhabitant is not reached. The Federal Republic of Germany, for example, should have held three times the number of books that were in its public libraries in 1974, whilst Japan needed almost three times the number actually held. The US draws near to the recommended pattern but does not reach the value suggested.

Libraries in Brazil are very unevenly distributed. Some idea of the distribution pattern can be gained from the following table.

**BRAZIL - LIBRARIES BY REGIONS**
(in percentages)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>North</td>
<td>3.86</td>
<td>43.62</td>
<td>2.36</td>
</tr>
<tr>
<td>Northeast</td>
<td>30.20</td>
<td>12.23</td>
<td>21.77</td>
</tr>
<tr>
<td>Southeast</td>
<td>42.77</td>
<td>10.88</td>
<td>53.39</td>
</tr>
<tr>
<td>South</td>
<td>17.70</td>
<td>5.64</td>
<td>12.27</td>
</tr>
<tr>
<td>West Centre</td>
<td>5.44</td>
<td>22.22</td>
<td>4.21</td>
</tr>
</tbody>
</table>


The Northern region comprising the states of Amazonas, Acre, and Roraima, and the territories of Roraima, Rondônia, and Amapá accounts for the lowest number of libraries, only 53.

The Northeast (states of Maranhão, Piauí, Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Sergipe, and Bahia) has 766 libraries.
The Southeast region (states of Espirito Santo, Minas Gerais, Rio de Janeiro, and São Paulo) has the highest number of libraries (1,879). The National Library (Rio de Janeiro) which has the largest collection in the country is also part of the region.

The South, with 643 libraries, comprises the states of Paraná, Santa Catarina, and Rio Grande do Sul.

The West Centre region formed by the states of Mato Grosso (North and South), Goiás, and the Federal District has 148 libraries.

With regard to popular libraries, there is no data related to their distribution by municipalities. This category of library is present in all twenty-one states and four territories of the Brazilian Federation. However, the geographical distribution of such libraries is unequal, with three states together having more than half of the total: São Paulo (534 libraries), Minas Gerais (434) and Bahia (229 libraries).

Since Brazilian libraries are far below the desired patterns, it might be more useful to examine library growth within the country in a period of seven years (1968-1974). This is shown in the following table.
### BRAZIL - LIBRARIES (1968-1974)

#### ANNUAL RATE OF INCREASE

<table>
<thead>
<tr>
<th>Type of Library</th>
<th>1968</th>
<th>1974</th>
<th>Annual Average Increase %</th>
<th>Number of Books</th>
<th>1968</th>
<th>1974</th>
<th>Annual Average Increase %</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>1,323,424</td>
<td>1,462,573</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>Special</td>
<td>350</td>
<td>572</td>
<td>9.0</td>
<td>3,034,664</td>
<td>4,964,937</td>
<td>9.0</td>
<td></td>
</tr>
<tr>
<td>University</td>
<td>352</td>
<td>613</td>
<td>10.5</td>
<td>2,111,567</td>
<td>7,375,121</td>
<td>35.6</td>
<td></td>
</tr>
<tr>
<td>Popular</td>
<td>1,452</td>
<td>2,333</td>
<td>8.6</td>
<td>6,799,887</td>
<td>11,061,230</td>
<td>8.9</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>2,155</td>
<td>3,519</td>
<td>9.0</td>
<td>13,265,542</td>
<td>24,863,864</td>
<td>12.5</td>
<td></td>
</tr>
</tbody>
</table>

**Data Source:** ANUÁRIO ESTATÍSTICO DO BRASIL. Rio de Janeiro, IBGE, 1974

The greatest development has occurred in the university library sector. This can be explained by the enormous expansion of Brazilian universities. In 1970 there were 425,500 enrolled students at the higher level, and in 1974 this figure had expanded to 937,600. In 1969 there were 61 higher education establishments. In 1974 the total of these establishments was 835. However, the growth of university libraries was not proportional to the growth of higher education in this period. It should be kept in mind that the great expansion of Brazilian higher education has occurred mainly in the private sector. The increase of 69% in the number of schools which reached governmental sector, was far exceeded by the rate of increase of private sector, 165%.

Schwartzman observes that in the United States and in many other countries, the private universities are, generally, among the high quality institutions. In Brazil, with a few exceptions such as the Mackenzie Engineering School of São Paulo...
or the Catholic University of Rio de Janeiro, the private schools of higher education tend to be enterprises concerned with monetary gains. They attract the maximum number of students whilst making the minimum investment in staff and equipment. Libraries could also be included in the comment.

The table below compares the development of libraries with some sectors of the national economy.

<table>
<thead>
<tr>
<th>BRAZIL ANNUAL RATE OF INCREASE (in percentages)</th>
<th>Period 1968-1974</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGP</td>
<td>Agriculture</td>
</tr>
<tr>
<td>-----</td>
<td>-------------</td>
</tr>
<tr>
<td>10.1</td>
<td>5.9</td>
</tr>
</tbody>
</table>

SOURCE: ROBOCK, H. Brazil: A study in development progress.

(*) SOURCE: ANUÁRIO ESTATÍSTICO DO BRASIL, 1978

The category "special library" includes industrial enterprises, business organisations, chambers of commerce, professional associations, learned institutions, government services and the like. Such libraries experienced a slower growth rate than the comparable growth rate of the industrial and commercial sectors.

It is worth mentioning that the period examined corresponded to the so-called "Brazilian miracle", when the country experienced a high increase in the gross national product:
BRAZIL - GNP ANNUAL AVERAGE (in percentage)

<table>
<thead>
<tr>
<th>Periods</th>
<th>GNP</th>
<th>Periods</th>
<th>GNP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1921-1930</td>
<td>3.7</td>
<td>1957-1962</td>
<td>8.3</td>
</tr>
<tr>
<td>1931-1940</td>
<td>4.6</td>
<td>1962-1967</td>
<td>3.7</td>
</tr>
<tr>
<td>1941-1947</td>
<td>5.1</td>
<td>1968-1974</td>
<td>10.1</td>
</tr>
<tr>
<td>1948-1956</td>
<td>6.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: ROBOCK, H. Brazil: a study in development progress

As explained by the economists, the "Brazilian miracle" means a distorted growth which occurred in the years 1968-1973. It was characterised by the growth of durable consumer goods, particularly the automobile industry, which increased at the rate of 15.20% to 25.00% per annum. This uncontrolled growth of unessential consumer goods generated an imbalance shown by the problems of the balance of payments (1973-1974), to which was added the world petrol crisis. The inequality was caused by the import of manufactured goods necessary for production. During the years of the "miracle" the industrial economy had increased at 11% to 12% per annum, but most salaries remained stable. This caused an enormous excess of money for reinvestment in industry.

Libraries have also experienced a favourable growth if compared to the population's annual growth rate. However, to catch up with the past shortages libraries should continue to grow at high rates annually. This is very unlikely to happen owing to the present problems faced by the national economy. Although data is not available, all types of libraries are experiencing cuts in their financial resources in real terms.

With regard to the use made of libraries, the table on the next page shows:
<table>
<thead>
<tr>
<th>Types of libraries</th>
<th>A Processed books</th>
<th>B Unprocessed books</th>
<th>Total</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>1,450,953</td>
<td>11,620</td>
<td>1,462,573</td>
<td>0,79%</td>
</tr>
<tr>
<td>Special</td>
<td>4,257,513</td>
<td>707,424</td>
<td>4,964,937</td>
<td>14,25%</td>
</tr>
<tr>
<td>University</td>
<td>5,782,236</td>
<td>1,592,885</td>
<td>7,375,121</td>
<td>21,60%</td>
</tr>
<tr>
<td>Popular</td>
<td>8,702,170</td>
<td>2,359,060</td>
<td>11,061,230</td>
<td>21,33%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>20,192,872</td>
<td>4,670,989</td>
<td>24,863,861</td>
<td>18,78%</td>
</tr>
</tbody>
</table>

RAW DATA SOURCE: ANUÁRIO ESTATÍSTICO DO BRASIL. Rio de Janeiro, IBGE, 19

This percentage of 18.78% of unprocessed books, besides being high per se, is aggravated when one considers the scarcity of books and libraries in the country.

If this is the situation of technical processing, on which great emphasis has been placed in this area in library curricula, it is opportune to examine data related to library staffing in Brazil.
Again the remark should be made that without the inclusion of school libraries and "reading rooms", this data cannot be related significantly to the general Brazilian population. In 1974, 19,286,611 students were enrolled in primary school and 1,681,728 in secondary school.  

Escolar Sobrinho, a UNESCO expert visiting the country called attention to the volume of unprocessed material in Brazilian libraries.

The high proportion of unprocessed books in the Brazilian library stock to 1974 can be shown by reference to the table below. Only books are included, but the proportion is similar for periodicals and other materials.
The category "graduate" does not necessarily refer to qualified librarians. Even assuming a high percentage of librarians within the category, the proportion does not correspond to IFLA's standard for qualified librarians, which is 33% to 40% of the total library staff.

With regard to expenditure incurred in the running of libraries, there is no available data.

The operations of the National Institute of the Book (INL) through "convenios" (a kind of agreement with municipalities) and through donations (financial and material) to state public libraries, will hardly show "statistical" results. But its importance is of another order. In a country like Brazil, of enormous geographical dimensions and increasing population (annual rate of 2.8%) with serious socio/economic problems, the library will take a position of low priority. With its scarce human and financial resources the INL, slowly but continuously, has reached around 2,000 of the Brazilian municipalities. Within its field of activities is also included the programme of training courses (PROTIAB), for lower level staff, in small public libraries. 600 municipalities have had staff trained by this
The various reports of INL provide elements for analysing its activities, and a more realistic picture of the library situation in Brazilian municipalities will be known when the survey by IBGE now under contract with the INL, is published.

International comparison is impaired by the lacunae exhibited in the UNESCO Statistical Yearbook. However, for a more reliable comparison data should preferably be extracted from the same source. Data from the 1975 yearbook is presented in the table on the next page.

Qualitative studies relating to the functioning of public libraries in Brazil are not very common. An example of such an investigation was one undertaken in a public library within the state of Minas Gerais. This study was undertaken in order to make modifications to the procedures operating in, and the services given by, the library. The sensitive nature of the findings of the investigation resulted in a restricted circulation of the report. Access to the results was obtained on the justification of their being important to studies of library curriculum.

The results of these investigations showed that the decline in library development during the period 1967-1975 was caused by a reduction in available finance (the budget increase did not follow the national rate of inflation during this period) and low staff productivity.

During this period, readers use of the library was reduced to almost one third the initial level. Hypotheses were put forward to explain this observation and included the lack of an adequate bookstock, low quality of services offered and uncomfortable facilities. Such criticisms were justified by the fact that the services to readers were restricted because of poor and outdated collections, of which only 6.4% was published in the present decade (1970's) and which included physics books published in 1939 and publications on hydraulics from 1925. The inadequacy of the text book collection was demonstrated by the presence of mathematics books written in English and human anatomy books written in German amongst the
<table>
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<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>12,959,000 (1972)</td>
<td>1,400 (1973)</td>
<td>7,897 (1973)</td>
<td>---</td>
<td>---</td>
<td>11,476 (1973)</td>
<td>Australia</td>
</tr>
<tr>
<td>France</td>
<td>55,544,400 (1975)</td>
<td>7,500 (1971)</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>France</td>
</tr>
</tbody>
</table>

1 Books only
2 Including data relative to the Byelorussian S.S.R. and to Ukrainian S.R.S.
3 Only Ukrainian S.S.R.
4 Partial data

the books for secondary schools. These books were unsuitable for the requirements of Brazilian secondary students. This inadequacy of stock is further highlighted by a lack of availability of copies of these books, a reference collection that represented only 4.4% of the total bookstock, and a low level of conservation of the collection (mutilated books, those with damaged bindings and books dirty through use or by dust). There was no policy for book selection. There was a lack of consideration of users' interests and requirements by the library staff; indeed there was no policy as to the user community that the library served. This was shown by the fact that observation on the related patterns of library use indicated that when there were more users, there were less staff available to attend and assist them. Furthermore reference services were almost nonexistent, and very seldom were cultural activities arranged. With regard to book loans, it was found that the incidence of overdue books was higher amongst adult readers, and that 32% of such overdues were books borrowed by the library staff. 77.6% of the overdue books were over 10 weeks late, the regular loan period being 15 days.

The fact that the investigation also revealed that the library staff were not involved in higher level professional work for most of the time, and that many of them disliked working with the public would further contribute to the extent of reader use.

The study also investigated various characteristics of the library user community, including their backgrounds, reasons for using the library, reading habits and extent of satisfaction with the library services and collection. The findings indicated that 47.2% of users originated from the lower-middle class, students account for 96.7% of readers, and those in secondary education 62.3%. Most users were 16-20 years of age.

In relation to reading habits and library use, 23.3% of users indicated that they liked reading literature most of all, and that 35% purchased books regularly. 57.4% did not use any other library. Half (50.2%) indicated that they used the library for preparation of school work.
The level of use satisfaction with the library collection and library services was found to be 32.2%, with a high level of satisfaction with the level of library staff attendance (43.4%). This level of user satisfaction has resulted in a comment from the researcher concerned: "The level of user satisfaction found must be contrasted with his ignorance of other libraries (57.4% do not use other libraries). The user does not have a pattern for comparison and cannot imagine that other library services may be rendered to him".

The report gives rise to the following comments:

The excessive emphasis given to technical processing both in library curriculum and practice has been shown to be self-defeating. Besides the high percentage of unprocessed materials in all kinds of Brazilian libraries, the material already processed and displayed in library catalogues shows incongruities such as: inconsistency in the use of general and specific terms within a subject, the apparent lack of criteria with regard to indexing specificity, and unnecessary details meaning delay in processing and intricacy for the user.

An examination of the bibliographical items used by Brazilian library courses in 1977 (as reported by CAPES study) shows that studies related to library catalogue use are not included. Also missing is the provocative article of Line on the mystery and mystique of librarianship. However, the findings of several studies lead to the demystification of many professional assumptions, and cannot be ignored in library education.

Another point to be considered is that, generally, written communication as illustrated by library annual reports, is poor and without imagination. Continuous and analytical records of library use are not provided which could yield documentary evidence of library performance. To the paucity of content is added the lack of statistical documentation. Investigations related to library problems are seldom undertaken, and their results unpublished.

These considerations raise the following important questions about library education: To what extent are prospective professionals led to improve their communication
(written and oral) ability? Are disciplines of an instrumental nature such as statistics and investigation techniques included in the curricula? Is library teaching being conducive to a critical and analytical mind?

Present indications show that the majority of Brazilian librarians tend to have introverted personalities and do not like public service.

As with the public library sector, special libraries have received little attention by way of investigations into their organisational development activities and resources. A picture of the situation relating to such libraries of the various types of organisations active in the field of agriculture can be obtained from the findings of a recent investigation in this sector.

In 1978 Brazilian agricultural libraries were examined in a masters' dissertation. The methodology used was the mail questionnaire, a viable method for a vast country like Brazil. Although social studies in the country have shown that the questionnaire return is lower than the world average, in this particular study 139 of the 248 institutions questioned made returns, giving an index of 56%. However, two important institutions (the central library of the Ministry of Agriculture, Brasilia, and the Federal University of Viçosa, Minas Gerais) did not reply to the questionnaire and therefore were not included in the results.

Excluding the two large afore-mentioned libraries, the study shows that the book stock was 1,405,347 items. Of this total 641,235 were books, 342,843 were pamphlets and 11,686 were theses. With regard to periodicals, several libraries had not replied to the questionnaire. The incidence of library distribution per Km² is of the value of one library per 64,484 Km²; this is obviously a very low incidence rate. In Mexico, for instance, the geographical distribution is of one library per 32,786 Km².

Over half of the libraries, (67.42%) were linked to one or more networks, systems or programmes, but 32.58% worked in complete isolation. With regard to communication facilities
the situation disclosed was: 93.18% had telephones, and 21.97% had telex, an infrastructure considered as being adequate for intercommunication by the researcher.

Only 14.39% of the libraries had microform readers, and 6.81% (9 libraries) had access to a computer. Computer application was mainly for library administration purposes, (e.g. book purchases, periodical ordering, etc). Only one library used the computer for retrieval operations, i.e. KVIC indexing. No interface with BIP/AGRIS of SNIR (selective dissemination information, processing information of the AGRIS magnetic tape system) was reported.

The libraries were concentrated in three regions: Northeast (31.07%); Southeast (31.07%) and South (20.45%), totalling 82.61% of all Brazilian agricultural libraries.

The study did not relate the participation of these libraries with regard to the central modules, therefore the benefits provided by these modules are unknown.

The results of study show an underdeveloped information infrastructure in agriculture, insufficiently used by potential patrons. The libraries face problems of human resources, of physical plant, of integration and of user interaction.

In contrast to the underdeveloped infrastructure of the agricultural information system, there are in the country: (i) the National System of Agricultural Information and Documentation (SNIDA) which presently has as its central unit the National Library of Agriculture (BINAGRI), created by the portaria ministerial (Ministry of Agriculture) n. 325 of 28 April 1978; (ii) The System of Techno/scientific information (SITCE) of the Brazilian Agricultural Research Enterprise (EMBRAPA), and (iii) the National System of Rural Information (SNIR) of the Brazilian Enterprise of Technical Assistance and Rural Extension (EMBRATER).

According to Chastinet & Fonsecaby through specific agreements concluded with EMBRAPA, EMBRATER, and the Ministry of Education (MEC) the three large networks in the agricultural sector, namely, extension, research, and education, were incorporated into the SNIDA. Presently 108 nodules of this network feed the documentary data bases and around 750 institutions
are using its services.

Some critical comments concerning the agricultural information sector, from the point of view of librarians working in these "nodules", will be provided in the section on Science and Technology.

Another study was proposed to analyse data of libraries linked to post-graduate courses in education. However, in most cases data from the universities' central libraries was also included. Forty libraries connected to 15 federal, 3 state, and 5 private universities, besides 4 research institutions were included in the study.

The Federal District (Brasilia), and 16 of the 22 states which form the Brazilian Federation were covered by the study. The method used was the personal application of a questionnaire. Information about such sectors as the age of the collection, and the percentage of items written in different languages were obtained from samples.

Of the 40 libraries, 21 were part of a central library. These 21 so-called central libraries were in different stages and patterns of centralisation.

The study, like any study of this kind, described one situation in one specific time. However, it may offer the possibility, for example, of identifying which universities have both the largest collections and the best communication infrastructure, to enable decisions to be made for the implementation of an information network or system in the country. (116)

In relation to library curriculum, students should be encouraged to analyse the library situation in their own region and compare it with that of the whole country. This analysis becomes more realistic when the students have the opportunity of knowing libraries "in loco" and of comparing their performance in the light of specific library requirements and constraining factors, such as human and material resources. A critical evaluation of library development also involves governmental policies and programmes for the several kinds of libraries.
In Brazil within the library domain, least progress has been made in the development of both public and school libraries. Although the history of Brazilian public libraries needs to be studied in greater depth, it seems that one of the factors influencing their slow and erratic development may be correlated to the elitist characteristics of the Brazilian educational system.

The country has never had an educational system which was universal, i.e. accessible to all social strata. Even when the government recently doubled the number of years for compulsory education, the physical conditions necessary for the law to be enforced continued to be non-existent. From 1971 basic education was extended from 4 to 8 years, but actual conditions to enable every Brazilian citizen of school age to pursue a regular course at school do not exist as yet.

Using as a yardstick the growth of the public library in developed countries, as for example the U.K. and U.S., one can see that the establishment of universal and free schooling was coincidental to the creation of public libraries. The universal and free school was instituted during the second half of the 19th century in those countries. The State took over responsibility for education in view of the requirements of industrial societies. Changes which arose in production relationships and, above all, with the increase in population and its concentration in urban areas, called for a more rapid and even complete elimination of illiteracy, and for the provision of minimum working skills to a maximum number of people. At the same time, public libraries were established in those countries, as can be seen through the national laws for public libraries. (1850 in the U.S. and 1851 in the U.K.) In the U.S. it was reported "common school and public library were firmly linked in the minds of those who supported the establishment of these institutions. Innumerable reports and speeches contained the message that the public library would carry on where the public school left out."
Another factor which affects public library development is linked to the user of the public library. The question may be posed, who uses the public library? The user of this library is an amorphous public, i.e. society at large, which in Brazil is a mass of people with little or no participation in the decisions of the country's life or in the application of its financial resources. While university and other specialised libraries do have specific users who hold mediating power in decisions concerning the library, the public library is dependent, for its existence, almost entirely upon the clairvoyance and goodwill of the state or upon a more aggressive participation on the side of Brazilian librarians.

How do Brazilian librarians behave when participating in this reality? On the one hand we have a few examples of aggressive participation, aiming at convincing authorities to create and foster public libraries; on the other we can see that the majority behave passively and show a poor level of communication with regard to authorities. Also, the already mentioned analysis of one public library has indicated that among the causes for the depletion of financial resources for the library in question was, "poor and inefficient relationships between librarians and the upper ranking authorities".

There is still another factor from which public libraries, as social institutions, cannot escape. It is the institutional instability which is a common feature of the Brazilian development model. Most Brazilian institutions undergo a cyclic life, facing successive periods of growth and recession. Brazilian public libraries have not yet been studied from the institutional point of view. Broader studies, which take into account socio/economic, political and cultural aspects in response to the evolution or depletion of our public libraries are still needed.

This traditional model of public libraries in Brazil, which are created and maintained by governmental organs, have suffered from a lack of continuity in the evolution of policy, with financial resources being allocated to them in a haphazard fashion. Although the resources originate from the public, their allocation does not rest with decisions of the public.
UNESCO's manifesto that the public library is an institution from the people and for the people is almost without meaning in the context of Brazil.

The model of the public library in Brazil has, generally, comprised a monumental building located in the centre of the town, with a very limited number of branches. The enormous distances in our excessively populated capitals, that are made worse by the very high density of traffic, cause access to these libraries to be virtually impossible for most segments of the population.

Public librarians, in most instances, have shown a bureaucratic tendency of complicating processing instead of rendering services to the user. In more concrete terms, librarians are too concerned with form at the expense of services, and there are too many librarians spending too much time on the technical tasks, and not enough people spending services for the users.

Biblio-buses which serve the population of peripheral boroughs, although very sought after by the inhabitants of these boroughs, also suffer from discontinuity. There are several examples of the interruption of these services owing to the bad condition of the vehicles. The replacement of these services is subject to the goodwill of administrators and their decisions are not necessarily influenced by librarians. There are examples of interruptions lasting more than one year.

One sector which has had a more regular and continuous life in some Brazilian public libraries is the Braille section for blind users. This sector receives strong support from the Lions Organisation. At the Public Library of the State of Minas Gerais this sector is one of rapid growth and includes the provision both of Braille versions of books, and of tape recordings. Volunteers spend time in the library taping books.

From the point of view of the "moral laws" of Ranganathan, the most difficult one to be applied in the case of Brazilian public libraries is that "Libraries are growing organisms". In Brazil public libraries have tended to experience cyclic or oscillating life styles.
It is not simply a matter of stating that public libraries in Brazil are in their early stage, or are a century backward with regard to the developed countries, but of recognising that attempts to transplant the model of the public library from other cultures have shown little possibility of satisfactory functioning in Brazil.

The limitations in the successful implementation of an externally administered public library system in the Brazilian environment arising from some factors that have been discussed here, lead to the question of whether or not other models of public libraries in Brazil should be sought. This aspect is further explored in the section on the extension function of library schools.

The re-examination of the public library in Brazil is crucial for its very survival. In the case of doubt being raised on this matter, an analogy can be found within the medical field.

It is considered usual to compare the professions of librarianship and medicine in respect of the extent to which both sectors comprise knowledge from other disciplines. It is also pointed out that the failure of librarians to develop a general body of scientific knowledge, similar to that of the medical profession with its auxiliary scientific fields has developed an immense body of knowledge with which to cure human diseases. In the same way, a comparison can be made between these two sectors in underdeveloped countries with regard to professional performance.

In the medical sector, the World Health Organisation (WHO) has recognised that Western medicine - based on drugs, physicians and hospitals - has failed in the underdeveloped countries, and has started to defend a new strategy for medical assistance in these countries. This strategy is based on the idea of promoting traditional medicine, rural clinics and the "barefoot physicians", these being considered the only effective resources for health assistance of the majority of the rural population in the underdeveloped countries.
The General Director of the WHO, Halfdan Mahler, states that most countries are spending 80% of their financial health resources on hospitals that attend to only 20% of the population. Both organisations, WHO and the United Children's Fund (UNICEF) recognise that any Latin American government has not effectively succeeded in persuading their physicians to move from urban to rural areas. Consequently, WHO and UNICEF have decided to jointly promote a new strategy with the objective not of increasing the number of physicians but of promoting the population's own capability in the struggle against disease. It is a strategy that prevents disease by the provision of clean water and by safeguarding the health of the environment. This, obviously, involves community participation. The guide published by WHO on first aids is starting to be adopted in countries such as Brazil, Mozambique, Ghana, Jamaica, Sudan, Iran, Laos, Senegal, Tanzania, Peru and the Philippines.

The movement of financial resources from the urban to the rural areas will not occur without a conflict with the interests of the powerful urban elite, the prosperous medical class, and its exclusive right in giving medicines, and the multinational companies manufacturing the drugs and medical instruments. However, Mahler insists that the present health policy must be totally reorganised. He proposes that the governments of the underdeveloped countries abandon the practice of producing more and more physicians who do not move from the towns, and in lieu of this promote the training of the population in health care. It is recognised that the majority of the diseases in those countries can be easily identified and treated by people specially trained for this situation.

The signs of changes in this line of approach can already be identified when the Health Ministries of several countries are employing health assistants in experimental projects.

If a parallel comparison is made between library sector and medical sector in underdeveloped countries, many common points can be identified and questions raised in respect of the policies adopted by governments and professional attitudes of both fields. For instance, how much money is
being spent by the governments of these countries on sophisticated information systems connected to commercial foreign data bases? What use is being made of the information provided by these systems? How much are governments spending on public and school libraries? What percentage of the population is served by any kind of library service? To which segments of the population are public library services being directed?

Such questions could also be extended to the professional performance. The transplantation of Western librarianship has frequently resulted in underdeveloped countries' professionals becoming over conscious of the intrinsic value of the library and its unsurpassed services, without expending efforts for its social legitimation in their countries. As a result of the model of librarianship in developed societies the trends are to reward professionals by the appearance of library buildings or size of the library collection, rather than by any innovative capacity in dealing with problems of an underdeveloped milieu.

Wasserman called attention to the danger of both the library institution and subject librarianship running the risk of perishing as a result of society questioning their relevance. His remarks are worth quoting here to the extent that they may well apply to Brazil.

In a volatile culture, programmes and services committed to the end of only a small segment in that culture; programmes and services in which the ritual requirements transcend client need are all in jeopardy. Those institutions which concentrate upon the artifacts and rituals, which fit its history but do not mesh with the intellectual and cultural requirements of the here and now, no longer suffice. Activities which simply reinforce the status and image requirements of those who ply the institutional craft, without congruence with the culture for which the organisation's products and services are intended, run the risk of extinction.\(^{122}\)
2.2.1. Book publishing - the input for libraries

Although a national week is held annually in Brazil to publicise the activities of the book trade and to promote book and library use, and there is an obligatory national day of the book at all levels of primary and secondary school education, such events do not indicate the state of health of the book trade in Brazil.

Some idea of the situation related to printing and publishing for the period 1973-1975 can be obtained from data provided by the 1976 and 1977 IBGE Yearbook (Brazilian Institute of Geography and Statistics) and that found in the study conducted by the National Publishers' Trade Union (SNEL) for 1973.

The development in publishing during these 3 years is shown by the table below:

<table>
<thead>
<tr>
<th>NEW TITLES</th>
<th>NUMBER OF COPIES(*)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(in thousands)</td>
</tr>
<tr>
<td>Year</td>
<td>Produced</td>
</tr>
<tr>
<td>1972</td>
<td>8,960</td>
</tr>
<tr>
<td>1973</td>
<td>9,948</td>
</tr>
<tr>
<td>1974</td>
<td>12,296</td>
</tr>
</tbody>
</table>


(*) Including translations

The book trade

For 1974, the total number of new titles published in Brazil was 12,296, of which 8,362 could be defined as "books". Of these 12,296 titles, 138 were first editions. These figures include also the translation of foreign books. As the estimated population of Brazil in 1974 was 104,243,300 and the total number
of copies printed was 228,920,000, this results in a low average of 2 books per person per annum.

**Book publishing**

If one considers in more detail the characteristics of the books published, textbooks and pamphlets accounted for the highest percentage (41.27%) (5,075) of titles published during 1974. This can be correlated with the growth and expansion of schools at all levels of education.

Technical books and pamphlets accounted for the second highest percentage (9.82% or 1,208 titles). A consideration of Escarpit's method of book classification, i.e. object-book, functional-book, and literacy book (122) in Brazil, the book is predominantly functional in nature.

Further analysis of the IBGE data in respect of subject content indicates that the highest percentage of publications (23.6% or 2,902 titles) was in the categories of philosophy, linguistics and literature. Publications dealing with education and teaching accounted for 9.86% (4,213 titles).

The IBGE Yearbook does not provide data according to reader characteristics, consequently, it does not specify the quantity of children's books published. However, according to the National Foundation of Childrens' and Young Adults' Books (FNLIJ), for the period 1973-1975, 3,693 titles relating to childrens' literature were published, of which only 40% were of Brazilian authorship.

At a more general level, the marked influence of foreign book translations on the total number of new titles published (12,296) can be seen from the fact that 2,905 titles of books and pamphlets (23.6% of all titles) were published. Of these, 1,784 were from Spanish, 738 were from English, 65 from German and a small number of translations were from other languages.
The table below illustrates the geographical imbalance in book publishing practice in Brazil, with the Southeast Regions accounting for 83% of all published titles, 70% of the pamphlets and 98% of all translated books and pamphlets.

**BRAZIL - BOOKS and PAMPHLETS PRODUCED and TRANSLATED, BY REGION**

<table>
<thead>
<tr>
<th>Regions</th>
<th>Produced</th>
<th>Translated titles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Titles</td>
<td>Copies (in thousands)</td>
</tr>
<tr>
<td></td>
<td>Books</td>
<td>Pamphlets</td>
</tr>
<tr>
<td>North</td>
<td>38</td>
<td>28</td>
</tr>
<tr>
<td>Northeast</td>
<td>243</td>
<td>590</td>
</tr>
<tr>
<td>Southeast</td>
<td>7,012</td>
<td>2,757</td>
</tr>
<tr>
<td>South</td>
<td>650</td>
<td>515</td>
</tr>
<tr>
<td>Centre</td>
<td>419</td>
<td>44</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>8,362</strong></td>
<td><strong>3,934</strong></td>
</tr>
</tbody>
</table>

RAW DATA SOURCE: ANUÁRIO ESTATÍSTICO DO BRASIL, 1977

Publishing is mainly carried out in two States as shown in the following table.
PUBLISHING IN TWO BRAZILIAN STATES:
1974

<table>
<thead>
<tr>
<th>Titles</th>
<th>Rio de Janeiro</th>
<th>% Brazil</th>
<th>São Paulo</th>
<th>% Brazil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books</td>
<td>3,839</td>
<td>45%</td>
<td>2,688</td>
<td>32%</td>
</tr>
<tr>
<td>Pamphlets</td>
<td>424</td>
<td>10%</td>
<td>2,022</td>
<td>51%</td>
</tr>
<tr>
<td>Translations</td>
<td>2,431</td>
<td>83%</td>
<td>413</td>
<td>14%</td>
</tr>
</tbody>
</table>

RAW DATA SOURCE: ANUARIO ESTATISTICO DO BRASIL. Rio de Janeiro, IBGE, 1977

Some information concerning the characteristics of the book printing industry in Brazil can be obtained from a study conducted by the National Publishers' Trade Union (SNBE)\(^{(12)}\), which estimates to have covered between 90% and 95% in the major states, and 40% in other States of Brazilian book publishers. This study investigated their production and commercial activities during 1973. Findings from the study demonstrated the effect of the growth of educational institutions and programmes in Brazil on the book printing and publishing trade. Whereas the average press run for a book was found to be around 3,000 copies, an edition of 100,000 copies of books for secondary schools was considered low, with runs of 500,000 copies being quite common. In addition, publications especially printed for the illiteracy programme (MOBRAL) have increased the average printing run by 12.7%, with MOBRAL being ranked the second highest consumer (25.3%) amongst the various types of educational institution.

The influence of foreign participation in the Brazilian
printing trade was indicated to come from two sources: imports of paper (37.9%) of all paper used) and co-printing. This practice accounted for only 4.1% of the total number of copies, and mainly involved Argentina, Germany, Holland, and Japan. The reasons for overseas participation were found to be the lower cost, co-production agreements, and the technical know-how available.

The predominance of the paperback in the book trade can be noted by the fact that 63.4% of all books printed were in this style.

The study highlighted the strong influence of the government on the publishing and printing trade in the field of education, text books and materials. This influence is exerted in three ways; firstly it is a big book buyer because of the HOBRAL programme, secondly it is the co-editor in the National Institute of the Book (INL) programmes, and thirdly it acts as editor and distributor of the National Foundation of School Materials (FENAME).

The printing industry is considered to be technologically advanced and its capabilities are greater than its present use.

International comparisons of the book trade

An international comparison of books published can be made from an analysis of the data concerning a selected group of countries. This is shown in the following tables (pages 136 & 137).

In comparing the results one should keep in mind the various factors which have an obvious bearing on the comparability and degree of accuracy of the data. One example of this is the lack of specific data pertaining to children's books in the statistics of Brazil and Argentina.

It can be seen that the highest number of new titles are distributed to the social sciences. This is followed by literature, and then applied sciences. This trend is also observed for Brazil, except that generalities come in the third place.

Publishing houses

The large variations in both geographical and subject content distribution of books published in Brazil can be more clearly understood if one considers some characteristics of the publishing houses. A recent guide to publishing houses, whose data was obtained from some incomplete results of a postal questionnaire, lists 296 Brazilian publishers distributed through 9 States.
<table>
<thead>
<tr>
<th>Country</th>
<th>Generalities</th>
<th>Philosophy</th>
<th>Religion</th>
<th>Social Sciences</th>
<th>Philology</th>
<th>Pure Sciences</th>
<th>Applied Sciences</th>
<th>Arts</th>
<th>Literature</th>
<th>Geography History</th>
<th>Children's Books</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina (1974)</td>
<td>108</td>
<td>513</td>
<td>-</td>
<td>1,041</td>
<td>-</td>
<td>82</td>
<td>494</td>
<td>685</td>
<td>1,105</td>
<td>152</td>
<td>-</td>
<td>4,177</td>
</tr>
<tr>
<td>Australia (1974)</td>
<td>52</td>
<td>6</td>
<td>38</td>
<td>723</td>
<td>32</td>
<td>143</td>
<td>235</td>
<td>130</td>
<td>239</td>
<td>163</td>
<td>57</td>
<td>1,818</td>
</tr>
<tr>
<td>Brazil (1973)</td>
<td>1,191</td>
<td>252</td>
<td>715</td>
<td>2,970</td>
<td>-</td>
<td>1,027</td>
<td>727</td>
<td>575</td>
<td>1,923</td>
<td>568</td>
<td>-</td>
<td>9,948</td>
</tr>
<tr>
<td>France (1974)</td>
<td>775</td>
<td>791</td>
<td>943</td>
<td>5,320</td>
<td>607</td>
<td>1,594</td>
<td>4,863</td>
<td>1,800</td>
<td>7,155</td>
<td>2,399</td>
<td>1,359</td>
<td>27,606</td>
</tr>
<tr>
<td>Japan (1974)</td>
<td>969</td>
<td>651</td>
<td>658</td>
<td>8,930</td>
<td>543</td>
<td>1,544</td>
<td>8,482</td>
<td>1,931</td>
<td>6,081</td>
<td>2,589</td>
<td>-</td>
<td>32,378</td>
</tr>
<tr>
<td>Mexico (1974)</td>
<td>18</td>
<td>98</td>
<td>85</td>
<td>1,037</td>
<td>316</td>
<td>412</td>
<td>2,559</td>
<td>629</td>
<td>454</td>
<td>125</td>
<td>296</td>
<td>6,029</td>
</tr>
<tr>
<td>U.K. (1974)</td>
<td>815</td>
<td>982</td>
<td>1,125</td>
<td>5,889</td>
<td>606</td>
<td>3,143</td>
<td>5,019</td>
<td>3,182</td>
<td>8,028</td>
<td>3,344</td>
<td>2,618</td>
<td>34,751</td>
</tr>
<tr>
<td>U.S.A. (1974)</td>
<td>1,244</td>
<td>1,412</td>
<td>2,041</td>
<td>9,168</td>
<td>445</td>
<td>2,980</td>
<td>6,080</td>
<td>3,292</td>
<td>7,933</td>
<td>3,478</td>
<td>2,609</td>
<td>40,682</td>
</tr>
<tr>
<td>TOTAL</td>
<td>9,110</td>
<td>6,014</td>
<td>7,933</td>
<td>49,516</td>
<td>4,926</td>
<td>13,629</td>
<td>34,664</td>
<td>15,445</td>
<td>41,815</td>
<td>16,769</td>
<td>9,595</td>
<td></td>
</tr>
</tbody>
</table>

RAW DATA SOURCE: U.N. STATISTICAL YEARBOOK, 1976 -

1. Including 258 titles in which UDC classification is unknown
2. Only the production of the book trade. However, publications of the Federal Government and theses are included.
# Statistical Data for an International Comparison on Book Production

<table>
<thead>
<tr>
<th>Country</th>
<th>Population</th>
<th>Per Capita Income (US$)</th>
<th>Number of Scientists &amp; Engineers</th>
<th>Higher Educ. Number of Teachers</th>
<th>Higher Educ. Number of Enrolled Students</th>
<th>Number of Titles-Books Published</th>
<th>Country</th>
</tr>
</thead>
</table>

---

1. "de jure" population
2. Excluded overseas territories
3. Census figures believed to be over enumerated.

RAW DATA SOURCE: U.N. STATISTICAL YEARBOOK, 1976
there is a high level of concentration in the two cities, Rio de Janeiro (135 publishers) and São Paulo (133 publishers). Two publishing houses belong to universities, those of São Paulo and Brasília.

Among the 81 listed subjects indicating the publishing speciality, the most frequent subjects are Brazilian literature, education, teaching books, law, history, psychology, philosophy, foreign literature, sociology, economics, communication, and books for children and young people.

There are 20 publishers that regularly produce books for children and young people, and another who produces such publications more occasionally. Two publishers specialize in this area: Editora de Orientação Cultural and Editora Brasil-America, both located in Rio de Janeiro.

Some publishers specialize in subjects such as law, philosophy, religion, management and Brazilian literature. Thirty-four publishing houses list books on the occult in their catalogues, outnumbering themes such as nutrition, cybernetics, agriculture and architecture.

**Periodicals**

Daily general information periodicals are produced in all the states of the Federation. In 1974, 284 daily periodical titles (weekly, fortnightly etc.) were published.

Specialists information periodicals are also represented in all states, and total 1,098 titles. Of this category, those concerned with recreation-games-sports represent the highest percentage - 18.30% (201 titles); next come generalities with 16.48% (181 titles), and the third place is occupied by religion-theology periodicals with 11.47% (126 titles).

The publication of general information periodicals is minimal. These total 3 in German, 1 in English, 1 in Japanese, 1 in Italian and 3 in other idioms. The presence of German, Japanese, and Italian periodicals is explained by immigrants of those nationalities who entered the country after the two world wars. More significant is the presence of other idioms in the category 'specialist information periodicals'. Here bilingual periodicals include 17 Portuguese/English titles, and 1 Portuguese/Japanese. Two are published in English, 2 in German and 1 in French.
The import of books

In 1969, Roberto Escarpit, commissioned by UNESCO, visited Latin American countries to study book diffusion in the region. In his report he classified Brazil as "a medium producer and large consumer of books", and Argentina and Mexico as "medium producers and large consumers and exporters". The other Latin American countries were classified as "small producers and medium consumers" or as "very small producers and small consumers". This last group included the largest number of countries. (128)

Changes in Brazilian situation as a "medium producer and large consumer of books" can be seen from developments in the Brazilian book trade since 1967.

In 1967, Brazil imported twenty times more books than exported to Portugal, for example. A total of US $9 million books were imported by Brazil in 1967; 4 million came from the USA, 1 million from Portugal, and 1 million from Spain; 0.5 million from France, and 2 million from the rest of the world. In contrast, Brazil exported the very low amount of US $50,000, including US $30,000 to Portugal. (129)

The changes which have occurred since the situation reported by Escarpit may be observed in the next two tables. The table below shows those largest book exporters to Brazil in the years 1975 and 1976 (latest data available).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>8,104,125</td>
<td>8,925,743</td>
</tr>
<tr>
<td>Portugal</td>
<td>3,766,260</td>
<td>4,276,788</td>
</tr>
<tr>
<td>Spain</td>
<td>3,141,841</td>
<td>2,252,890</td>
</tr>
<tr>
<td>W. Germany</td>
<td>2,759,207</td>
<td>2,477,140</td>
</tr>
<tr>
<td>UK</td>
<td>2,303,607</td>
<td>2,161,129</td>
</tr>
<tr>
<td>France</td>
<td>2,239,115</td>
<td>4,029,714</td>
</tr>
</tbody>
</table>


(*) Includes: Printed books, newspapers, pictures, and other products of the printing industry
In 1974, Brazil exported books to Portugal to the extent of US $3,141,757, to Spain US $1,155,197, and to the United States US $680,503.

The next table shows Brazilian book exports for the year 1975 to those four countries.

<table>
<thead>
<tr>
<th>Country</th>
<th>US$</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>1,063,124</td>
</tr>
<tr>
<td>Portugal</td>
<td>3,441,084</td>
</tr>
<tr>
<td>West Germany</td>
<td>950,000</td>
</tr>
<tr>
<td>Spain</td>
<td>549,210</td>
</tr>
</tbody>
</table>

Although Brazilian book exports have increased, especially in relation to Portugal, the country is highly dependent on imports, mainly for technical and scientific books. The invasion of the local market by paperbacks of secondary cultural importance is a problem to which the Brazilian publishers are frequently calling attention.

The next table shows Brazilian imports in the three year period 1974-1976:
BRAZIL - BIBLIOGRAPHICAL IMPORTS IN TONS

<table>
<thead>
<tr>
<th>Bibliographical materials</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1974</td>
</tr>
<tr>
<td>Technical, scientific and didactic books</td>
<td>2,023</td>
</tr>
<tr>
<td>Cultural books</td>
<td>898</td>
</tr>
<tr>
<td>Journals and magazines</td>
<td>1,931</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>4,852</td>
</tr>
</tbody>
</table>


The IBGE yearbook registers book imports in tons and US $ only. Since the imports originated from different countries, it is difficult to calculate the average book price and to estimate the number of copies. However, if the average weight of a book is considered to be 4 pounds, the total number of copies of books was 2,717,120 for 1974. This increased to around 3,216,400 in 1975 but fell to 2,471,840 in 1976.

Compared with the number of copies of books published and printed in Brazil that were placed on the market (228,920,000), the additional imports did not significantly affect the average ratio of new books per inhabitant 1974-1976.

Although it is estimated that 90% of the books used in Brazilian universities are imported, the existent intricate bureaucracy for imports, plus the censorship with unclear criteria, cause difficulties to book sellers and librarians. More recently progress was made when bibliographical material was excluded from import duties. However the Brazilian Post Office (EBC'T) still requires declaration of import, and charges for the material before it is delivered.
Internationally, the situation of the Brazilian book may be illustrated by the 1978 International Book Fair of Frankfurt, at which only 20 Brazilian publishing houses were represented. This lack of interest may be explained with the words of a Brazilian publisher present in Frankfurt:

"Foreign publishers only want exotic writings. By this I mean lots of local colour. A very good Brazilian writer who writes about universal themes finds a terrible barrier, partly because there are several authors all over the world writing very well on universal themes. However, the interest is great in exotic writings. A Brazilian publisher sold the book "Magia brasileira" (Brazilian magic) to Larousse of Paris in 1977. The first edition (20,000 copies) was sold out in six months". (133)

Problems of book publishing in Brazil

The several studies undertaken by SNEL and Camara Brasileira do Livro identified the main problems faced by the book in Brazil. Some are of a universal nature such as the reduced time availability in modern society, and the competition of other communication media. (135) Most of the difficulties are common to developing societies, and in the specific case of Brazil the reading habit is below the country's actual potential if one considers the population (106,405,566) and the number of students enrolled at all levels of education (21,905,932). Notwithstanding other factors here interact such as the population's low level of income, the paucity of libraries, the teaching methods used, and also cultural factors.

Book distribution is another problem identified since there are only 400 bookshops all over the country. These bookshops are mainly concentrated in the cities of Rio and São Paulo, with the result that the interior of the country is left outside the book distribution circuit. Moreover, a country like Brazil with a continental dimension, and an estimated population of 120 millions cannot be satisfied with the derisory network of 400 bookshops. Book distribution has been achieved in a precarious way by the big publishing houses, through the maintenance of stocks in the main consumer centres. Medium and small publishing houses use the services of representatives who contact bookshops spread through the country. Sometimes it happens that small deliveries have to make journeys of almost continental dimensions. (135)

Foreign competition has been noted by local publishers with
regard to the technical book, an area which is already completely dominated by multinational corporations. These companies are gradually reaching the university and the other levels of teaching.

With the large amount of funds available their production is characterised by large press runs. According to the publishers, dumping frequently occurs. However, to these concerns of the publishers with the penetration of the national book market are set against arguments that the national book trade lacks in competitive capability. In 1975, Edgar Blucher, the then president of the National Publishers' Trade Union (SNEL) enumerated the foreign enterprises operating in the local printing industry and warned of the need to strengthen the Brazilian printing before opening the local market to foreign competition.

One can add to those difficulties mentioned, the official censorship that exerts pressure on authors, limits editors freedom, and keeps control of distribution.

Far more than ever before this decade has witnessed a systematic discussion of book problems in this country through reports based on investigations done by publishers, economists, and sociologists, besides frequent articles in the major newspapers. More recently the press has been reporting negotiations of representatives of the publishing industry with the Ministry of Education, envisaging an integral policy for the book. The library is obviously included, and its expansion is pledged by publishers. As Warsamson puts it "... publishers are a stalwart ally in representations for support in every jurisdiction for increased library appropriation, for construction, acquisition, and for school, public, and academic library development. Still these are all measures which increase the numbers and extend the market."

Both librarians and publishers seem to be keenly aware of the need for better library development in the country, but relations between librarians and publishers are almost nonexistent. This is understandable to the extent that libraries are not yet significant buyers of books in the country. For comparison, in a survey chaired by S. Sarris of R. R. Bowker in the United States questioning 94 publishers, of which 55 replied to the questionnaires, one has the figures: 59.3% reported that 40% or more of their sales were to libraries, 40.7% reported that libraries account for half or more of their sales, and 25.4% sold 70% or more of their output to libraries.
The most noticeable development in the relations between both groups in Brazil, is that the Brasilia Library Association invited local publishers and book sellers to become members of that Association. (143)

The development of the book industry is naturally of utmost importance for the librarian since it means a better and greater supply for user demands and interests. The question is whether or not librarians can become an information source in the marketing researches undertaken by the printing industry.

As the librarianship profession operates within the total process of social communication, of which the publishing system is a part, the library curriculum should require that students are aware of the dynamics of the publishing process. This awareness involves individuals and institutions who generate and control recorded communication. Communication theory and processes of social communication are to be studied in the first cycle of studies (the Social Sciences basic cycle). The sequence of studies in the professional cycle involves studies from the generation of information, through sources of information, and the book trade, to bibliographical control.
The situation of bibliographical control

The situation of bibliographical control in the country requires some discussion owing to its importance for the librarian in his role as mediator between the information and its user. By means of recording and publishing its bibliographical output the country is not only building up its recorded memory but also is in a position to exchange information with other nations.

The concept of bibliographical control has not yet become fully operationalized in Brazil. At the level of discussions many ideas have been advanced and recorded in the specialist literature, showing that the professionals ascribe importance to the concept, and not ignore foreign experiences that have proved very successful in controlling their bibliographical production as well as in providing access to the document for the user.

In practice even a cursory examination will disclose that bibliographical control and document provision are still only concepts in the country.

The objective of this section will be to summarise the situation of bibliographical control, without attempting to discuss possible solutions.

The first reference to the necessity for legal deposit of bibliographical material in the national library in order for the author to retain his copyright appeared in Brazilian legislation in 1947, Decree No. 433 of 3 July. In 1967, the Decree No. 1,825 of 20 December established the legal deposit requirement with the aim of expanding national bibliographical production. In 1916, the Civil Code in its Article No. 673 established legal deposit (National Library, National Institute of Music and National School of Arts) as a copyright guarantee.

Since the time of Brazil's adherence to the Bern Convention in its first revision and subsequent revisions,
legal deposit became ineffective as a guarantee to copyright, because the convention established that copyright is not subject to any formality, and is independent of the rules established in the country from which the works originate. Because of this legislation and the anachronisms of the sanctions due to the decree of 1907 the National Library is losing its capacity for controlling the bibliographical production of the country. (146)

In 1973, a new copyright law No. 5.988, 14 December 1973, title II; chapter III determined that for the security of his rights, an author may register his work in the National Library, at the School of Music, at UFRJ School of Arts (Rio de Janeiro University), or in the Federal Council of Engineering, Architecture, and Agronomy. The verb may indicates the voluntary character of the deposit.

Garcia (146) commented on this situation, that Brazilian legislation has not yet been capable of solving the problem of the legal deposit, and consequently of national bibliographical control.

Since its reform in 1971, the National Library has striven to provide this control by publishing regularly the Boletim Bibliográfico da Biblioteca Nacional, however without obtaining the desired results. A study of the Fundação Getúlio Vargas in 1971 indicated that the National Library is, in fact, receiving only 20% of the national bibliographical production.

The current Brazilian bibliographies, both official and commercial, have presented discontinuities which may be seen in the diagram on the next page.
CURRENT BRAZILIAN BIBLIOGRAPHY

<table>
<thead>
<tr>
<th>(*)</th>
<th>BBBH(1)</th>
<th>BB-IND(2)</th>
<th>BB-RL(3)</th>
<th>BBN-INL(4)</th>
<th>BBB-SNEL(5)</th>
<th>EB-SNBL(6)</th>
<th>RB-SNBL(7)</th>
<th>RB-SNEL(8)</th>
<th>BC-EV(9)</th>
<th>BN-ASR(10)</th>
<th>LM-JH(11)</th>
<th>CL-CBL(12)</th>
</tr>
</thead>
</table>

SOURCE: Unpublished teaching material produced by Paulo da Terra Caldeira, Belo Horizonte, Escola de Biblioteconomia da UFMG
(*)

(1) BOLÉTIM BIBLIOGRÁFICO DA BIBLIOTECA NACIONAL
(2) BIBLIOGRAFIA BRASILEIRA - Instituto Nacional do Livro
(3) BIBLIOGRAFIA BRASILEIRA CORRENTE - Revista do Livro
(4) BIBLIOGRAFIA BRASILEIRA MENSAL - Instituto Nacional do Livro
(5) BOLÉTIM BIBLIOGRÁFICO BRASILEIRO - Sindicato Nacional de Editores de Livros
(6) EDIÇÕES BRASILEIRAS - Sindicato Nacional de Editores de Livros
(7) RESENHA BIBLIOGRÁFICA - Sindicato Nacional de Editores de Livros
(8) RESUMO BIBLIOGRÁFICO - Sindicato Nacional de Editores de Livros
(9) BIBLIOGRAFIA CLASSIFICADA - Editora Vozes
(10) BIBLIOGRAFIA NACIONAL - Antônio Simões dos Reis
(11) LIVROS NOVOS - J. Heydecker
(12) OFÍCINA DE LIVROS - Câmara Brasileira do Livro
In summary it can be seen that in the 94 year period (1886-1979) 50 years are covered with bibliographies, either official or commercial, or both. The diagram below shows, however, that 44 years are not covered by any kind of bibliography.

**BRAZILIAN CURRENT BIBLIOGRAPHY**

<table>
<thead>
<tr>
<th>Years</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1880</td>
<td></td>
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<td></td>
<td></td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
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<td></td>
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<tr>
<td>1890</td>
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<td></td>
<td></td>
<td></td>
<td>XXX</td>
<td>XXX</td>
<td></td>
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<tr>
<td>1900</td>
<td></td>
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<td></td>
<td></td>
<td>XXX</td>
<td>XXX</td>
<td></td>
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<tr>
<td>1910</td>
<td>XXX</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1920</td>
<td>XXX</td>
<td>XXX</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1930</td>
<td>XXX</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1940</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
</tr>
<tr>
<td>1950</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
</tr>
<tr>
<td>1960</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
</tr>
<tr>
<td>1970</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
<td>XXX</td>
</tr>
</tbody>
</table>

XXX covered by bibliography

Probably all the Brazilian Library schools teach the topic universal bibliographical control U3C as a reasonable amount of written material exists on the subject. However, within the country the problem of bibliographical control needs more studies and actions for its solution.

Morte-Nôr gives an account which shows the steps to be given for bibliographical control in Brazil. According to her, the adoption of the International Standard Book Number (ISBN), now being experimentally implemented by the National Library, and the International Standard Serials Number (ISSN), coordinated by the Brazilian Institute of Scientific and Technological Information (IBICT) will make it possible for the National Library to publish the current Brazilian bibliography more regularly and promptly. The acceptance of CALCO (Project of Cooperative Cataloguing) would allow the exchange of magnetic tapes among the regional institutions. She adds, "to the extent that CALCO corresponds effectively to the international patterns, it
would be feasible for Brazil to transfer information on an international basis. (149)

The national bibliography is being published twice a year through the Information Centre of the Ministry of Education (CINEC) under an agreement between the Ministry of Education (MEC) and the National Council (CNPq), it is intended that the CINEC should become the basis of data for national bibliographical production. (150)

From the point of view of teaching, the problem of bibliographic control may be approached by comparing and contrasting the solutions found in other countries, taking into account local conditions. For this, an awareness of the state-of-the-art is needed, together with a critical analysis of viable alternatives for the attainment of bibliographical control in Brazil. As the problem of involvement of publishers in bibliographical control is not found in the revised literature, arrangements should be made to put students in contact with the National Publisher's Trade Union (SNI) to listen to their point of view on the matter. (151)
2.2.2. The reading habits in Brazil

As part of an investigation undertaken in 1975 into the social function of the book in Brazilian society, Medina included results of empirical investigations that had been done regarding the reading habits within the country, together with studies he had undertaken for the Latin American Centre for Research in Social Sciences and the National Union of Book Publishers\(^{(152)}\). He also discussed government policy in respect of books\(^{(153)}\).

The following is a summary of the results of research into reading habits in Brazil as presented in Medina's study, besides a few other studies on the matter, not included in Medina's study.

In 1971, a study was carried out by Marques de Melo\(^{(154)}\) on the use of communication media by students at the University of São Paulo\(^{(155)}\). Two aspects were considered in this study: Habits (reading and time spent in it) and preferences (the choice among different media). The data obtained referred to the previous day of questioning. It was disclosed that each student interviewed spends an average of only 84 minutes per day in reading books. The girls read more (the average was 108 minutes) than the boys (70 minutes). As for the preferences, the table below shows the results:

**AUDIENCE FOR THE DIFFERENT COMMUNICATIONS MEDIA AT USP**

**(UNIVERSIDADE DE SÃO PAULO)**

<table>
<thead>
<tr>
<th></th>
<th>In the previous day</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Have read journals %</td>
</tr>
<tr>
<td>TOTAL</td>
<td>88</td>
</tr>
<tr>
<td>Students</td>
<td>90</td>
</tr>
<tr>
<td>Male</td>
<td>91</td>
</tr>
<tr>
<td>Female</td>
<td>88</td>
</tr>
<tr>
<td>Teachers</td>
<td>85</td>
</tr>
<tr>
<td>Staff</td>
<td>76</td>
</tr>
</tbody>
</table>

Source: MELO, José Marques de. Uso dos meios de comunicação na Universidade de São Paulo. In: Comunicação social, teoria e pesquisa. 1976
These results compare with an investigation carried out by Kornerup, UNESCO expert, which indicated that 72% of the male students and 63.6% of the female students of both the Catholic and the Federal universities of Goiania (State of Goiás) watch daily TV programmes. The percentages relative to their parents are even higher: 77.5% for their fathers and 92% for their mothers. The students and their parents spend an average of two hours and forty minutes before the TV screen, daily.

As for the reading of newspapers the results were:

<table>
<thead>
<tr>
<th>Newspapers (%)</th>
<th>Father</th>
<th>Mother</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>82.5</td>
<td>84.6</td>
</tr>
<tr>
<td>No</td>
<td>17.5</td>
<td>15.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Frequency of the reading of newspapers (%)</th>
<th>Father</th>
<th>Mother</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>Every day</td>
<td>55.00</td>
<td>23.0</td>
<td>56.0</td>
</tr>
<tr>
<td>On sundays</td>
<td>2.5</td>
<td>23.0</td>
<td>20.0</td>
</tr>
<tr>
<td>Sometimes</td>
<td>25.0</td>
<td>46.0</td>
<td>-</td>
</tr>
<tr>
<td>Rarely</td>
<td>18.5</td>
<td>8.0</td>
<td>24.0</td>
</tr>
<tr>
<td></td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>


It is worthwhile to mention another study by Guidi, which investigated two basic issues: desired and actual leisure activities in Brasilia. The variables considered were residence, socio-economic level, sex, and schooling. An analysis of the nearly 14,000 answers obtained by this study indicated that listening to music was ranked in first place; followed by watching films and T.V. Reading was the least important, with only 7.8% of the total. These results are related to actual leisure activities. With relation to desired leisure time pursuits, reading was placed in fifteenth place, with only 1.6% of the answers. When examined in respect of schooling, those data were corroborated. Reading is a desired leisure activity to 2.2% of those with less than five years of schooling; 1% among those who have studied five years; 1.8% of those who have completed
eight years' schooling; 1.9% of those who completed secondary education, and 1.1% of those who completed a university course. In accordance with socio-economic level, reading, as actual leisure, presented the following percentages: 42% for the lower class, 55.4% for the upper sector of the lower class, 53.6% for the lower middle class, 44.6% for the upper middle class, and 6.6% for the upper classes. This study clearly shows that reading for leisure for the interviewed population is almost insignificant.

Still more data can be added to this gloomy picture if we look at the results of one investigation carried out in 1972 in three urban communities of the state of Rio de Janeiro, by Neida. 562 secondary school students were interviewed about how they spent their free time. 88.3% of the students spent two and a half hours in front of the TV screen; 56.4% never or very rarely went to the cinema; 77.7% had never gone to the theatre; 91.8% had never attended a concert; 48.7% did not go to exhibitions. As for the existence of books in their homes, this was the picture: 28.8% stated they did not have a bookshelf, while two thirds had only textbooks and detective stories, and for the record, 88.3% of the students were the people holding the highest level of schooling in their respective families.

Leaving aside the various elements of this analysis, one conclusion may be deduced: the students interviewed are dependent almost exclusively on their schools in order to enter the cultural world. Their parents may help, but they cannot transfer to their children what they do not know or do not possess. This includes the reading habit.

We may visualise this vicious circle if we turn to the research data: 66.7% of the students interviewed in three towns of the state of Rio de Janeiro were finishing the "curso normal", i.e. they were being educated to be primary school teachers. Considering their restricted cultural horizon, it is not hard to envisage what they will be transferring to their future students. Results show that their education depends heavily on the information broadcast by TV. There is no reference to libraries in the investigation.

A broader survey on the role of the school and the teacher in Brazil utilised questionnaires distributed in 1973 to almost all the Brazilian towns that had secondary schools. In each school the headmaster chose three teachers from the so-called cultural area to answer the questionnaires. What were the results? To the question
about the existence of cultural activities in the town, 80% answered negatively. Only 28% of the towns had libraries, and complaints about the lack of books were general. This investigation has shown that although there has been growth in the educational system, it is occurring in poor material conditions. The majority of schools present physical and material deficiencies. The teachers complain of not having enough time for satisfactory preparation of their classes. The students are considered by their teachers to reveal background deficiencies and to be devoid of cultural interest. 76% of the teachers answers indicated that the students dislike reading.

The third research project carried through by Medina in 1974, surveyed secondary students of 6 large Brazilian cities (Belém, Belo Horizonte, Curitiba Recife, Santos, and São Luiz). For the question on the prevalence of "regular reading" or "occasional reading", affirmative answers varied from a low percentage of 28% (in Santos) to a high of 59.3% (in São Luiz). Such results were considered low by the researcher, principally when one takes into account that the interviewed population was entirely engaged in school activity. An interesting result of this survey was shown in the variable of social class. The upper-class rate was 34.9%, middle-class 39.3%, and 47.7% for the low-class. The researcher commented on this result: "When one examined the reading in relation to social class, one found out that reading is more common to the lower classes, therefore lacking the expected correlation between higher socio-economic level and higher regularity in reading: in all researches the lower class students read more, thus indicating a strong relationship between learning and possible upward mobility. However, one found out a strong decline in the regular reading of the oldest students, that may demonstrate that the reading habit is remarkably school-based and compulsory."

It is worthwhile presenting some of Medina's general conclusions:

... TV has adapted better to those whose habitual behaviour was more in accord with the structure of the culture prior to its introduction...

It is known that books published up until the XVIII century (sic) were published at the authors' own expense, when members who were of the dominant classes, or else had a Necenas.... There was no possibility of making a living by writing. For this to become a possibility a reading public was essential. This began to appear in the XIX century through the demographic expansion and the concomitant improvement of
living conditions for some portion of that increasing population. Such process would only occur in XX century Brazil\(^{(155)}\). We have therefore, a gap of one century with a population with no reading tradition which comes to participate in a world which is more technologically developed, especially in the area of mass media communications.

... Whether today one accepts the idea that it is essential to know how to read and to write and moreover that it is indispensable that the whole population possess a minimum schooling, this alone will not necessarily lead to a greater use of the book. The disciplined study, individually and/or in groups, which is based on the free use of, and ascribes authority to the book is one thing; quite another thing is the successful achievement of a diploma through compliance with scholastic obligations only. Since these obligations are restricted to the content of an examination they can be summarized in a few sheets of copy-books, a single textbook or apostilas\(^{(160)}\).

... The parents' reading habits influence the children's attitudes: when the parents read, it increases the reading level of their children in all schooling levels. Hence reading progress is to be made within two generations. However, when the persons are little or "more or less" educated, this long term expectation risks not being substantiated, as shown by the results of several researches.\(^{(151)}\)

Other investigations besides those reported by Medina are, for example, the study by SÃO Paulo (Welfare and Social Secretary of the State of São Paulo) that surveyed the low income population expectations, in the city of São Paulo. The main interest of the study was the programme for fundamental education, but other information was included which allowed some ranking of demands by the related population. In the set of references to recreational activities, "TV and reading" rank low (only 3.5%), but through other areas of the study it was shown that at least half the population reads journals and magazines. For this striking inconsistency the interpretation given is that reading activity is not included in the recreation reference system of the studied population. Helo adds the comment "... reading in the context of Brazilian culture (a predominantly oral culture) is linked less to activities which propitiate pleasure and spiritual satisfaction than to activities which require effort and concentration. Popularly, reading means study (in the sense of a serious matter, almost similar to work) and not recreation (voluntary activity, free and relaxing).\(^{(252)}\)
The study by the psychologist Celéa Bosi, also investigated the readings of a small group of female workers. Her study is more significant than numerically representative, but it gains in depth when 52 workers of a factory in the West region of the city of São Paulo "had been interrupted in their work day" to be interviewed by the author.

Bosi remarks that the poor worker's book-orientated culture restricts them in their selection of reading to a few readings, but even though there are limitations in choice, it represents a more vigorous gesture - that of a more personal engagement that the reception of a TV programme or a radio novel. This was the reason why the author selected the reading as the object for her theme of study: "Mass culture and popular culture".

The workers in Bosi's study did not know libraries. The books had come to the worker by chance and not as planned purchase, through kiosks in their way to the factory, or by means of a book mobile selling books in front of the factory attracted by showy binding, but poor printing and content. A book on sexual education, the most requested by the single worker, cost around 67 hours of their work, paid by instalments.

An examination of the study shows these results: 81½% read magazines (each copy largely circulated among them), 62½% read books, 67½% read newspapers. The 38½% which do not read books explain their lack of reading on lack of time, lack of money, disinterest, fatigue and weak vision.

Through Bosi's work we come to know what these workers read and the meaning of reading in their lives.

The author optimistically believes that her study has preceded the formation of a reading community, to whose existence she advocates the formation of libraries in the boroughs, in the parishes and in the factories.

Her last words leave much to be considered by librarians: "When we discover these shortcomings, we also realize that we commit ourselves to them. What is needed is to know the problem closely, to touch the facts. But it is not enough to talk in someone else's name, we must see the reality from the workers perspective..."

As seen, the studies on the reading habits do not tell us to what extent the books read are borrowed from libraries. Reading habits and library use are related to social trends and cultural
values. Therefore studies in the area are better undertaken by interdisciplinary groups. However, librarians did not take part in any of the studies examined.

Although the available reading habit studies lead to the unquestionable conclusion about the low reading level of the populations studied, their results cannot be compared, since the object of study was approached differently. Reading in the Brasilia study was explored superficially, since it was not the main objective of the investigation. Not all studies take into account time spent and frequency of reading. In Goiania questioning about reading was limited to the parents. On the other hand, this aspect was not explored in the other studies.

The studies were mainly centred on the student, and a possible explanation for this choice is the expansion in school enrolment occurring in the last years in the country, which was expected to result in an increase in reading. With regard to this matter the studies have indicated that other factors are involved which make the question of increased reading not just a simple question of expanding schools.

Reading studies in other countries disclose the similarities of findings over the twenty-five year period of these studies. The findings, especially of studies conducted in the USA, UK, Denmark and Sweden, which generally are carried out by librarians and sociologists as an advisory service to librarians, are of interest for library curricular purposes. An interesting finding is that the major correlations of reading and library use are the educational level of the reader and the availability of reading resources.

In a country where a national law for public libraries has not yet been passed, the need for similar evidence (that availability and accessibility to books correlate high with reading) to be sought by librarians becomes apparent. Evidence obtained could influence government at all levels, of the need that provision of quality library resources are matters of genuine commitment and not just lip-service.

The existing reading studies in Brazil are recent, not allowing an evolutionary study of the reading habit in the country, and, moreover, no correlation of low availability of libraries to low reading was explored. It has not been shown that where there are libraries and librarians there is more reading.
A comparison between libraries and education in Brazil disclose that whereas matters concerning education have reached the interest not only of educators, but of politicians and social scientists, the former remains restricted to the librarians' own universe. The indications are towards the fact that librarians have not yet been able to find an appropriate discourse for communicating with authorities for demonstrating to them the importance of libraries. For this communication to be effective facts are needed as to whether reading and library use are correlated to exposure and access to books. Also if Brazilian librarians are to influence authorities for developing libraries in the country, a set of facts as background have to be collected, analysed and convincingly presented to them.

Brazilian librarians used to discuss and to write in their specialist journals the importance of libraries at large. Most of UNESCO's ideas and other international influences are largely circulated among librarians, however without extrapolating the inner realm of librarianship to a wider audience. The indications are that Brazilian librarians have not yet succeeded in enlarging their communication audience. Even within the specific dimension of library communication, the rhetoric for improvement is not documented by local evidence. Two aspects to reach the desired evidence may be identified: on one side library statistics at all levels have to be improved. At the present time, the student who looks for statistical data on library use is likely to find only very general data related to the reader's sex and reading according to the ten Dewey's classes. Frequently the age or the social class of the reader cannot be identified. Secondly, systematic studies on basic questions related to library use have to be posed and investigated. For instance, while we know that public libraries are intensively used by students we don't know the trends of this use. Is it increasing or decreasing? Do young people only read because they are students? What evidence do we have that shows where libraries exist there is more reading? What evidence do we have that the use of libraries depends upon the attitude of the librarian?

Reading and the Libraries

Libraries have responded negatively to the problem of reading habits in the country, firstly for being scanty in number and quality. Secondly, the librarians, not surprisingly, were considered
to exhibit a high degree of "technicism" and not to have the reading habit themselves.\((155)\)

The studies do not include the use of public libraries by students. One investigation carried out in Belo Horizonte\((157)\) has shown that in the local public library 97% of the reference section users are students, and 62% of the book loans are made with the objective of obtaining information for school-work. There is not available data on school libraries for the country at large since IBGE's yearbooks do not include this kind of library, but their scarcity is a very well known fact. An instance of this is the study that surveyed in 1971 all secondary schools of Belo Horizonte\((157)\). In the 159 schools visited, including 12 governmental and 147 private schools, libraries were found in the 12 governmental schools, but only 39% of the private schools had libraries.

According to countless public librarians, the students attitudes displayed in the public library reveal not only their own inability to use libraries, but that of their teachers as well. Students are sent to the public library for a bibliographical search of themes not even well delimited. The students lose their way, and the librarian commonly must help by indicating the beginning and the end of one subject in the encyclopedia, for otherwise the students tend to reproduce pages and pages indefinitely. The numerous distortions in our teaching system give support to Medina's statement that the school seems to be the least appropriate place for creating a reading habit.\((156)\)

A possible line of library action is exemplified by the Regional Public Library of Copacabana in Rio de Janeiro. The local librarian had asked the teachers of those schools that were regularly sending their students to that library to discuss the problem concerning the students use of the library. The first meeting "had shown certain animosity on the part of the teachers", states the librarian. "But in the following meeting we arrived at a common language to overcome problems related to the students bibliographical searches. For instance, the number of students that the library could admit each time, the instruction to be given in relation to the library and its bibliographical tools. On that occasion it was decided that the library as well as the school would work to help the students to use bibliographical materials more critically by explaining techniques for sorting out facts, by identifying alternative points of view, and
Here the curricular implication is the need for the prospective librarian to be prepared to become involved with "user education". Of the three identifiable aspects of user education, (i) how to use the library, (ii) how to conduct individual library research, and (iii) how to prepare final paper in an acceptable format, this last one seems to be the most explored in Brazilian library curricula. But there is evidence for the need of highlighting also the two other aspects.
2.2.3. "Internationalism" - a contributing factor for library development in the Third World?

The word "internationalism" here includes the co-operation programmes of UNESCO, as a specialised agency of the United Nations, as well as the International Federation of Library Association (IFLA) and the Federation of International Documentation (FID) which organise the national organisations on a professional basis. These are non-profit making organisations, as opposed to private corporations which constitute the second interpretation of "internationalism" and which provide international information on a commercial basis. This second group resembles to a certain extent the multinational corporations, i.e. "a company with its parent headquarters located in one country and subsidiary operations in a number of other countries." (176)

The main differences in the characteristics of these information environments is that (in contrast to the efforts of the international cooperative programmes to encourage the establishment of national library/information services and systems) information agencies are not, on the whole, established in the countries of the subsidiaries of the multinational organisations, since modern techniques of information transfer via teleprocessing has enabled them to conduct their operations in the field of information directly from the countries in which their headquarters reside.

However, there are many similarities between the big industrial corporations (multinational companies) and these new multinationals of information, including the provision by the "subsidiary" country of the required infrastructure of tele and satellite communications networks, cable T.V., computer terminals, and other computer hardware, to make possible their connections with these corporations.

For more than 20 years library courses in Brazil have concentrated on the teaching of documentation as outlined in the descriptive study of UNESCO's structure, programmes, and proposals. The International Federation of Documentation (FID) and its several commissions similarly received considerable attention in these course programmes, as well as the International
Federation of Library Associations (IFLA). Some schools still concentrate on this "descriptive and uncritical" study of these international organisations, whereas other courses have reorientated their programmes in spite of the fact that many of these well intended proposals and programmes have not succeeded in our milieu.

Benge (171) suggests that the idea of a truly international concept of library development and library service is either a mirage or a mechanism without much significance. One considers in spite of the fact that UNESCO's and IFLA's proposals are worthwhile and legitimate, the concentration in the programmes on the teaching of these international bodies has led to what Benge astutely points out "students (and also lecturers) of library science behave as if these national information systems already exist whereas they are still largely an abstraction". (172) He also calls attention to the literature relating to international librarianship as having "a curious tendency to consider the documentation (much of it official and therefore suspect) as if it were reality, or indeed, as if it were the only reality". (173)

The other reality is, naturally, that information has assumed the clear-cut characteristic of a marketable product and is being used increasingly as an exportable commodity. Data bases (the most recent form of storing and disseminating information) are bargain tools, and competition increases for their market. Presently, mammoth online system suppliers (the most modern form of accessing information, viz: secondary information) such as the Lockheed Information System and that of the Systems Development Corporation (both located in the US) are competing in the provision of information on a world wide scale.

The extraordinary development of both online systems has resulted in the following comment of Alley et al. (176) in the following terms "These American giants did not achieve their position (as the most powerful online system suppliers) as a result of wishful thinking, pious internationalism, ineptly administered subsidies, or wavering, ignorant and indecisive policy support."
The US, as the initiator of such systems, and having at their disposal enormous financial and technological resources, has advanced to the point of provoking the concern of other developed countries. This preoccupation relates to the dominant position of a sole country in controlling the most sought after data bases due to their satisfactory coverage, and widest communication network, besides the best promotional support. The developed countries apply for their relative advantages in the international market, for instance, France in developing multi-language services, UK with its enormous bibliographical resources as document suppliers, Germany with its technological and scientific output, and Canada with the prospect of building up its own data bases as a matter of urgency. These are a few examples.

This brief discussion of the issue - information as a trading commodity - gives rise to questions relating to the position of Third World countries in the international marketing and trading of information (and associated computerised retrieval systems).

Although the contribution of Latin America to the world scientific and technical literature continues to rise, production of information is still only relatively small. This is demonstrated by the fact that the UNESCO Yearbook 1977 indicated a contribution of only 5.2% of the total world production in 1976. A recent survey by Carpenter et alii (175) relating to world journal production in this sector showed that Latin America as a whole contributes only about 4%. This small contribution, together with the lack of effective control of information produced within their boundaries has resulted in them having little influence on policy and decisions relating to content, production and use of the large data bases currently available through the international online networks, and to the establishment and use of any data bases produced from their own internal resources and related to their particular requirements.

It has been considered by Munn (176) that the several plans and proposals presented by UNESCO in its reports and its conferences during the 1960's on the transfer... of the latest
developments in Western library and information technology were highly theoretical in nature, with little consideration as to the costs, purpose of, and benefits to be derived from the transfers contemplated, (which included the proposed introduction of complex computer-based information systems). In addition, the nature and relevance of any information retrieved by such systems in the context of the social, cultural, political and economic climates existing in the developing countries was rarely mentioned, and in fact appears to have been ignored. Munn considers that the lack of visible results occurring from these extensive activities and actions of UNESCO, visiting experts and government commissions has resulted in the adoption of cynical attitudes within the developing countries and by the more perceptive of the visiting consultants. He considers that the wholesale implementation of ambitious, complex projects as planned by such bodies and individuals should be modified such that project designs are capable of modular application, with each module being seen by the developing countries involved as having a feasible implementation and from which a tangible benefit will occur. It is considered that only then will projects be supported with much more enthusiasm, and will help to dispel the existing mood of cynicism.

This present situation is enhanced by the contrasting nature of the economic, political and organisational situations between the developing and developed countries. Multinational companies in Brazil, with their large financial and skilled manpower resources, their well developed communication channels and access to large units of information have penetrated the country extensively. There has been also a large amount of government participation in the country's industrial sector. This has meant that the remaining private industrial sector has little economic manpower resources available to compete in the production, marketing, promotion of data bases and information retrieval services, either on a national, or even smaller, scale for world wide use. This is in contrast to the developed countries whose economy is more freely affected by prevailing market forces and less controlled by governments.
The pressures of competition have given similar economic incentives to all sizes and types of organisations in the private and partially controlled government sectors of industry. The increased competition has given greater incentives to both large and small organisations to exploit the commercial aspects of information communication and exchange. Such incentives, together with government policies that have resulted in establishing coordinated national library and information services and systems (e.g. in the United Kingdom the British Library) for use of all organisations has created a favourable climate for the development of data bases and information retrieval systems and their commercial exploitation.

The fact that libraries and information units in developing countries apply abroad, even for documents produced within their own boundaries, indicates the extent of their dependence on these countries. The present lack of interest shown by data bases producers and information brokers of developed countries in the information requirements particular to the environment existing in the Third World opens up the opportunity of their constructing and controlling data bases in topics which are not covered by these large international data base concerns. The extent of this lack of interest by the developed countries and the reasons for it is made more apparent following an analysis of prevailing attitudes on the establishment of a worldwide service for the dissemination and provision of information and related to the agricultural sector in order to attempt to alleviate the pressing needs of the developing countries.

An international study team was appointed by UNESCO to undertake an assessment of the impact of the AGRIS programme on the world wide dissemination and availability of agricultural information. The findings and recommendations of the study team could be summarised from two points of view, those of the developed countries and those of the developing countries.

Lancaster and Hartyn list the reasons for the relative lack of concern and interest shown in the project by the developed countries as:
(1) We are already well provided for by existing services.
(2) Tropical agriculture, a major concern of many of the developing countries, is not our primary interest.
(3) A data base not accessible online is of very limited value.
(4) Too much material of low scientific value is accepted into the data base.
(5) We have very little to gain from the participation in the programme.
(6) Participation on our part would involve giving but not receiving. It would be a form of foreign aid.
(7) Departments of agriculture (insofar as these agencies are responsible for AGRIS in various nations) are not foreign aid agencies.

And contrast then with high degree of interest and success that is attributed to the system by the developing countries, viz that:

(1) We need a single comprehensive data base covering the world's agricultural literature, in conventional and non-conventional form, to replace the multiple data bases now in existence.
(2) We want a participatory programme in which we are partners and have equal rights. We do not want to feel completely dependent on a product fully controlled by one of the developed countries.
(3) AGRIS has been a great stimulus to the development of national and regional capabilities for the control of agricultural literature. It has provided a structure within which funds for development of capabilities (e.g. from UNDP and IDRC) have been available and it has provided excellent training opportunities in the developing countries.
(4) AGRIS is already better than most other sources in its coverage of the agricultural literature of the developing countries.
(5) It would be a serious setback to the development of national information programmes in many countries if AGRIS were not allowed to continue. (177)

Among the various reasons that could be attributed to the lack of cooperation between the developed and developing countries are those contributing to the lack of understanding of the present social, economic, political, industrial
environments of this last group of countries, and the problems they present, together with the historical basis of the present situation of the developing countries. (178)

Only in the 1970's has serious consideration been given to arguments that the transfer of sophisticated technology in itself does little to improve the social, economic and cultural well-being of the developing countries. In fact, the installation and operation of mechanical plant and automated processes increased the foreign debt, helped increase unemployment by replacing labour intensive methods, required skilled labour for equipment operation in the developing countries, and were found to perform poorly in the social and economic climates in which the technologies were implanted.

Within the sector of library/information services and systems, amongst the reasons for failure was the fact that while major emphasis was placed on the transfer and development of sophisticated information systems, little thought was given to document access and delivery problems.
REFERENCES AND NOTES


Many of the opinions and evaluations presented in this section are based on the study undertaken by:


Carvalho interviewed 46 persons involved in (i) organisations responsible for the decisions and policies for the implementation of scientific and technological programmes; (ii) universities; (iii) research institutes; (iv) manufacturing industries; (v) consulting firms. His study is also based on over one hundred publications (books, articles, theses) besides governmental documents on science and technology in Brazil.

Since 1970, when IBICT established in Rio de Janeiro the first postgraduate course in the country, concentrating on information science, one had to wait until 1976 for a second course to be established (in Minas Gerais). This was followed by three other courses established in the States of São Paulo (Campinas), Paraíba and Brasilia.

FUNDACÃO CARLOS ALBERTO VANZOLINI. Programas governamentais de apoio ao desenvolvimento tecnológico. São Paulo, 1975. (mimeo)


GARCIA, Maria Lúcia de Andrade. Informação científica e tecnológica. Belo Horizonte, CEPq, 1976.

No clear reference is made in the specialist literature to the failure of the implementation of the SNICT. References to "ambitious plans" are made as well as recommendations for future discussions of a national system of information in science and technology. Such recommendations refer to the need in future discussions that they are limited to the technical level and avoid the "political level". A serious study of this failure would be of the utmost importance in any future undertaking.


(23) CARVALHO, J.H. 1976. op. cit.

(24) See for example:


(28) BIATO, F. de A. 1971. op. cit.


(33) ALVES, Sérgio Francisco & FCD, Ecila Mutzenbecher. O comportamento tecnológico das empresas estatais. Rio de Janeiro, FINEP, s.d.


(37) GARCIA, M.L. de A. 1972. op. cit.


(44) CARVALHO, J.M. 1976. op.cit.

(45) GARCIA, M.L. de A. 1979. op.cit.

(46) SEMINÁRIO de acompanhamento e avaliação dos projetos vinculados ao contrato DNER-CRUB, 5º, Rio de Janeiro, IPR, s.d. 3v.


(48) Interviews were conducted in November 1979 with a group of Brazilian library educators. See chapter four.

(49) GARCIA, M.L. de A. 1979. op.cit.


(52) This legislation includes:

- Resolution n.18, December 26, 1977, article 2, of the Federal Council of Education. It refers to the authorization for higher courses, created under article 2, paragraph 1, Law-decree 464, February 1969.

- Resolution n.7, August 28, 1978, article 17 of the Federal Council of Education establishing standards for the authorization and accreditation of universities.
(53) Illustrations of this situation are for example, Parecer n.2.732/77, approved in July 4, 1975, referring to a Faculty of Education; Parecer n.876/77 approved March 3, 1977; Parecer 4.561/78, approved 3 January, 1978; Parecer 5.125/79 approved 29 August, 1978; Parecer n. 5.184/78 approved 25 August 1978.


(54) In 1967, Abreu called attention to the fact that from 1930 to that date, among the 25 ministers of education in Brazil, 16 were jurists, and the period of their mandates was 3 times longer than the period of the remaining ministers. The great structural reforms of the educational system were made by jurists. As a result educational codes were constructed in the same fashion as was applied to penal codes, wherein the numerous articles and paragraphs attempted to cover rigidly the enormous diversity peculiar to the educational process.


(56) AZEVEDO, Fernando de. A cultura brasileira. 2.ed. São Paulo, Nacional, 1944.


(58) AZEVEDO, 1944. op. cit.

(59) ROMANELLI. 1978. op. cit.


Castro points out that similar conclusions have been reached based on empirical evidence by an increasing number of educators and American scientists. In the bibliography quoted by him are, for example.


(51) TABELLO, Odilia Clark Peres. In: Minas Gerais. Suplemento pedagógico, 7(52), mai 1978.
(62) FÁVERO, op. cit.


(64) ROMANELLI, op. cit.

(65) GÓRTZ, Tod. XEU-US.ID: ideología del desenvolvimento americano aplicada à educação superior brasileira. Paz e Terra, 7:123-137.

(66) ROMANELLI, op. cit.

(67) FÁVERO, op. cit.


(71) The examination of the material published and distributed by Brazilian embassies in several languages shows that the presence of the "racial democracy" and the "Brazilian friendliness" are favourite themes in these publications.

(72) Latifundios are enormous rural properties owned by a family or interrelated families.

(73) One of the most significant teams of social scientists oriented towards an historical/sociological investigation and centred in Florestau Fernandes, Cezario Tanni, Fernando Henrique Cardoso, Emilia Viotti da Costa, Paulo Beguelin, suffered collective retirement from the University of the State of São Paulo in 1968. These individuals were recruited by universities such as Sorbonne, Yale, Columbia, Toronto, Oxford and the College of Mexico.

(74) FIGUEIREDO, J.C. op. cit.

(75) FURTADO, Formação, 1976. op. cit.

(76) Bolívia, Decreto-Ley August 2, 1953: Cuba, Decreto-Ley May 17, 1959; México, Código Agrario, December 31, 1942, art. 104. Acud:


see also


(78) This approach was adopted recently at the Library School of the Federal University of Minas Gerais.


(83) For two years in the 1960's, by invitation of the mayor of Recife, Paulo Freire coordinated an adult education programme within the popular cultural movement which was then in existence. In a subsequent assessment of this project, the sociologist Hanfredi considered that the system proposed by Freire was distinguishable from its predecessors by the several noticeable features that it included. The project involved the use of a technique of overcoming illiteracy which enabled a mastery of reading and writing in the minimal time of 40 hours. Additionally, the programme allowed, within its inherent cultural content a critical examination of the basic social, political and economic problems of the environment in which the illiterate people were cast. This latter innovation of the project, in particular, was a potential guarantee for education to be included, together with a diverse set of other methods in the growth of the political participation of the population.

(84) In 1969 MEB was given an award by UNESCO for its meritorious work.


(86) PAIVA; *op.cit.*

(87) The sole 6 copies of this document were marked "restricted circulation" to be limited to access by the authorities. Public access to the results of this document only was made possible 4 years later through the magazine *Isoté*. 

MOBIL'S basic course lasts 5 to 6 months and the integrated education (extension of the basic course) is of the same duration.


MCURA CASTRO, op. cit.


MCURA CASTRO, op. cit.


See for example the study conducted by SPERANZA, Nair Paiva, op. cit.


Existing literature on the development of public libraries in the various Brazilian states is sporadic and scattered. Even with such difficulties, however, it is possible to know the stage of development of public libraries in some states. An example of this is the situation in the State of Pernambuco, by way of some publications such as:


(107) INTERNATIONAL FEDERATION OF LIBRARY ASSOCIATIONS. Standards, op. cit.

(108) Considering that there are 3,953 municipalities in the country, the INL "reading rooms" have reached almost 60% of the municipalities (59.5%).

(109) Under the "convênios" (agreement) the town provides a building, furniture and library stationery, and employs a person to look after the library. The INL donates the original stock, gives technical advice and training courses.


(111) The methods used in the investigation included: visits to all sections of the library; observation of staff and users' behaviour; interviews with heads of sections; application of questionnaires to the whole staff; application of questionnaires to all users during three periods of one day; examination of the collection; analysis of the catalogues, and analysis of statistical records of all library sections.

(112) FIGUEIREDO, Nice et alii. O ensino de biblioteconomia no Brasil, relatório de equipe de pesquisa sobre o "status quo" das escolas de biblioteconomia e documentação, com ênfase na situação do pessoal docente. Brasilia, CIEI, 1972. 3v.


(118) Some studies on Brazilian institutions have disclosed these features. See for example,

STEPAN, Nancy, op. cit.


(123) Uma política integrada do livro para um país em processo de desenvolvimento. São Paulo, Câmara Brasileira do Livro; Rio de Janeiro, Sindicato Nacional dos Editores de Livros, 1975. 2v.

(124) The irrational utilisation of the printing industry is pointed out by Abraham. In several printing houses the book has had the character of a by-product and is printed as a way of utilizing the unused capacity of the machinery.


(127) ANUARIO ESTATISTICO, 1976, op. cit.


(135) Whether we think reading is an acquisition of the élite, which cannot be divorced from certain patterns of education, and whether we think industrial society is destroying the silence and isolation required for reading, on the other hand we might say the book possesses a capacity to react in the face of such factors, even facing the new communication media. This reaction is shown by the increase in book publishing all over the world, in libraries statistics, and in the amount spent by governments on school books in most countries.

(136) ABRENO, C livro no Brasil, op.cit.


(139) LIVROS, a luta contra a desnacionalização. Banas, 15 a 28 Set. 1975.


Under the title Universal Bibliographical Control (UBC) the International Federation of Library Associations (IFLA) proposed in 1974 that UNESCO adopted as a major policy objective the promotion of a world wide system for the control and exchange of bibliographical information. The purpose of the system is to make universally and promptly available, in a form which is internationally acceptable, basic bibliographical data on all publications issued in all countries.

The concept of UBC presupposes the creation of a network made up of component national parts, each of which covers a wide range of publishing and library activities, all integrated at the international level to form the total system.

At the national level the operation of the system has as its requirements:

(a) the means of ensuring that it is possible to make the bibliographic record of each new publication as it is issued (i.e. by legal deposit or similar governmental regulation, or by voluntary agreement).

(b) the machinery by which the bibliographical record can be made, that is, the establishment of the national bibliographical agency which will:

(i) establish the authoritative bibliographical record for each new publication issued in the country;

(ii) publish those records with the shortest possible delay in a national bibliography which appears regularly;

(iii) produce and distribute the records in a standard physical form (cards, machine readable tapes, or acceptable alternatives);
(iv) receive and distribute within its own country similar records produced by other national bibliographical agencies;
(v) eventually, as circumstances permit, create a retrospective national bibliography of the country's published output.


(146) A doctoral dissertation on the bibliographic control in Brazil is in progress.

(147) BRASIL. Leis, decretos, etc. Coleção das leis do Império do Brasil. Rio de Janeiro, Imprensa Nacional, 1808.


(150) Apud MONTÉ-MOR. Controle ... on. cit.


(153) Medina makes an interesting study which should be presented for discussion to students who are being educated to work in libraries.

São Paulo university is the largest Brazilian university.

MEDINA, op. cit. reproduces results of Else Knormerup study in Goiânia, which surveyed a student sample of both universities, Catholic and Federal.

GUIDI, M.L. Housinho, and MEDINA, op. cit.

MEDINA, op. cit.

The remark has to be made that the press only emerged in Brazilian territory three centuries after its implantation in Europe and several Eastern and Western colonial areas. Melo in his doctoral dissertation analyses the fundamental reasons for that long delay: the nature of the society established in Brazil by the Portuguese was predominantly rural, largely illiterate, and lacking in a State bureaucracy. In such a society neither the press and the book had any role that could justify their implantation.


"Apostilas" have been used in all levels of teaching in Brazil. What is an apostila? It cannot easily be defined, since it can vary from simple adaptations of texts (generally translated) to actual contributions by the lecturer which result in the publication of good textbooks. A speculation can be made in respect of its origin, by linking it to Colonial Brazil when the Jesuits made adaptations to, and at the same time undertook censorship of the classical Greek and Latin texts for use within their schools.

An old reference to the use of "apostilas" in Brazilian teaching is to be found at the Military Academy. This academy was founded in 1810 to train officer cadets in the arts and sciences of war, and prepare them for the surveying and exploration of what was still a virtually unknown land. Stepan comments: "The most modern European textbooks in mathematics and physics were imported for use in instruction - works by Euler, Bézout, Monge, Legendre, Lacroix, and Hady. Later these ceased to be read in the original but were studied in compendia put together by instructors at the school. (Cut italics).

Although condemned by the Ministry of Education, its use is so generalised in Brazil as to deserve more studies. A student of secondary school, for example, when he finishes his course will have a considerable number of apostilas, around one hundred, each of 30 to 40 pages. Several apostilas include practical exercises and their commercialisation by the schools is a common practice.
This has concerned the book trade since it sees this
parallel business as being disloyal: one, it is not
subjected to taxes, and it calls attention to the
fact that these apostilles are extracting (disguised or
not) totally or partially, parts or whole chapters of
books bearing copyright.

The implications of apostilles for libraries has not as
yet been investigated. If the university most libraries
incorporate apostilles to their book stock in order to
attend the demands of the students.

The volume of production of apostilles is also ignored,
since they are not included in the statistical yearbook.

Is the apostilla a Brazilian phenomenon or is it also
present in other countries? Dr. Urquhart made reference
to the existence of the "Dictate" in Indonesia, which
seems to have some common features with the Brazilian
apostilles.

(161) MEDINA, op. cit.
(162) MELO, José Marques de. Subdesenvolvimento, urbanização e
(163) BCSI, Beléa. Cultura de massa e cultura operária, leituras
(164) see LIBRARY TRENDS. Research in the fields of reading and
p. 77-251.
(165) MEDINA, op. cit. refers to the interviews with book
publishers. The above opinions are from publishers,
referring to librarians.
(166) PERES, Odília Clark & PULGARDO, Célia Maria de O.
Pesquisa sobre os usuários da Biblioteca Pública de
Minas Gerais Prof. Luís de Bessa. R. Est. Bibliotecas.
(167) FEIXOTO, Alzira da Cunha. Guia das bibliotecas de escolas
Trabalho de conclusão do curso apresentado à Escola
de Biblioteconomia da UFMG.
(168) MEDINA, op. cit.
(169) Words of the librarian during an interview with the author.
(170) HULLER, op. cit.
(171) BERGE, Ronald. International and comparative library
studies. In: Cultural crisis and libraries in the
p. 229-246.
(172) BERGE, R. 1979. op. cit. p. 224
(173) BENGE, R. 1979. op. cit.


3. STUDENTS IN THE FORMULATION OF OBJECTIVES FOR LIBRARY EDUCATION

As already pointed out in the Introduction, the student is one of the sources for the selection of educational objectives. Moreover, the student is the raison d'être of any educational institution, although this was not recognised until Rousseau and his successors promoted the shift of the learner to the centre of gravity in the educational process.

The planning of the curriculum has to take the student into account: his psycho-biological characteristics (sex, age, level of physical and intellectual development); psycho-social characteristics (system of values, interests, expectations and motivation); as well as educational characteristics, such as level of education and course attended.

The direct participation of the students in curricula matters has happened in Brazil not only through their struggle for university reform but also as a result of their participation in discussions related to the composition of specific curricula.

The first part of this section draws upon studies of the Brazilian university student, but it should not be considered in any sense a review of the literature. The purpose here, is to provide a brief set of findings and of their interpretation as background, through which one can distinguish currents of change in the university student in Brazil.

On the basis of the fact that librarianship in Brazil is taught at university level, the library student must be considered in the university context.

3.1 The Brazilian student: some studies

Who is the Brazilian university student? Recent research by the Institute GALLUP (São Paulo)\(^1\) in 1977, reached six state capitals of the total 22 and a sample of 1,067 university students.\(^2\) From the results of this research we have the information below on the Brazilian university student.
- predominantly aged from 18 to 24 years (72%), with the marital status of the majority being "single" (86%),
- pays for study since only 36% attend free public schools,
- there is a certain equilibrium between the sexes: 53% are men and 47% are women,
- only 23% of their parents had university education, although the overwhelming majority come from higher income groups,
- 57% of the students work regularly or possess some kind of private income. This significant participation in the labour market suggests that the student has links with the reality of the national situation in Brazil,
- only 28% were very satisfied with their courses, whereas 32% were partially satisfied, 21% somewhat unsatisfied and 19% were very unsatisfied. (3)

The number of Brazilian university students - 1% of the country's total population - is still low, even considering only the Latin American average which is 3%.

However, in absolute numbers the total of students attending courses at the University level in Brazil is impressive. In 1974, the number of enrolled students at higher education level was 954,674, which is several times more than that in countries with a much higher per capita income. It is more than three times as high as Australia, whose per capita income is more than five times as great, almost double that of Argentina, a country with more than double the per capita income, almost double that of the UK, whose per capita income in 1975 was five times higher than that of Brazil.

Account must also be taken, however, of the differences in population size in various countries. The comparisons made here only relates the extent of university education to the amount of income available.

The GALLUP research included not only questions related to the students' opinion of their university teaching, but also questions related to their political standing. The reason for this is that the research was conducted only a short while after
the students' demonstrations. In reality, after a recess of nine years, the students have returned to the streets of São Paulo (March 1977) and they have demonstrated in favour of better teaching conditions and their disgust at the precarious operational conditions at São Paulo University - the largest in the country with around 30,000 students and 4,600 teachers). This University, that had in the past had a high standard of teaching, suffered between 1976 and 1977 a decline of 35% in its financial resources. The censorship was relaxed on that occasion to allow the press to publish news concerning the events. Besides the academic questions, questions of political order have also arisen. Details of the findings of the GALLUP study will be given later in this section.

Brazilian students, like their colleagues in Latin America, have a long tradition of political involvement, regarding themselves as an élite with the right and even the duty to organise themselves and act politically. The students state that because they are the most enlightened segment of the population they cannot remove themselves from national problems. They recognise that the student condition in the country presumes the existence of certain prerogatives, which increase their responsibility. They denounce the rigidity of the socio-economic structure which makes the student a burden on the nation and education a privilege. On this point Foracchi comments: "..... the nature of the options offered by a society in the struggle against underdevelopment is to accept (education) as a burden and privilege or to unmask, through action, the factors which make it seem as such". (4)

In the past Brazilian students have fought, for instance, for the abolition of slavery, for the establishment of the Republic and later for the abolition of Vargas' dictatorship (1930-1945). From 1937 the students had their own union, (UNE) with well-defined national, state and local organisations, subsidized by the federal Government. Other students' campaigns were for educational reforms, demanding more funds for higher education, to combat illiteracy and also for the defence of Brazilian natural resources from foreign exploitation. In the 1950's and 60's they called for radical solutions to Brazil's economic problems.
The students' participation in the 1960's, when they fought for university reform is analysed by Favero. From 1961 to 1968 student seminars were held in Bahia (May 1961), Porto Alegre, immediately after the Bahia Seminar, Curitiba (March 1962), and Belo Horizonte (1963). In the document originating in the 1961 Seminar, the students, in formulating the basis for a university reform programme, felt the need to place that question in a larger context. They recognised the lack of sense in discussing the university in abstracto, disassociated from historical momentum. Along this line, they have insisted on the need to outline a university mission involved with the needs of the society - a mission for a university of this time and in this place, in a country in the process of development.

Their demands were: the establishment of a consistent substructure; agrarian reform to make possible the diversification of agricultural production; socialisation of the fundamental sectors of the economy, and the reform of the condition of the proletariat. (UNE, 1961) Favero comments "..... the directives proposed in the Seminar are presented on a rather general level, without being structured as a project. The points considered as fundamental are presented in a vague manner and without explanations. However, in spite of the criticism that may be made, attention is drawn to the concept of the university as being engaged with the reality of which it is an integral part". (5)

From the propositions from the other seminars it is worthwhile pointing out the objectives:

a) To struggle for the reform and democratisation of teaching,

b) to open the doors of the university to the people through the implementation of courses accessible to everybody; courses leading to literacy (to be provided by any faculty or department), courses for master-builders (at the engineering schools), courses for labour union leaders (by law schools), etc.

c) to offer the university services to the less favoured classes through legal, medical and dental services.
With relation to the teaching and academic/administrative problems:

a) for university autonomy, in its three aspects - educational, administrative and financial:

b) full-time dedication of teachers:

c) the abolition of lifetime chairs:

d) improvement of teachers' training:

e) participation of teaching staff and students in the university administration according to a criterion of proportionality:

f) the non re-election of Rectors (vice-chancellors) for more than one term:

g) the introduction of vocational tests previous to the entrance examination, as well as the specification of the number of places in each school:

h) an increase in the number of places in governmental schools, especially in technology:

i) elaboration of curricula and programmes in consonance with the development of the country and adjusted to regional differences:

j) concentration of the basic disciplines in the two initial series of the course:

k) decentralisation in the formulation of curricula and programmes, once general guidelines are determined (UNE, 1961).

Many other relevant propositions were posed by the students. Until 1962 the students' actions for university reform were more restricted to the holding of seminars, meetings and debates within the universities. In a more concrete way, the students' action had its beginning in the demand for one third of the decision-making power in administrative matters. This proposition was not accepted by the university authorities, which provoked the famous "strike" of the students, of a magnitude never seen before in the Brazilian university milieu. (6)

Poracchi (7) in her analysis of declarations and interviews published in the press in those times, points out the difficulties in communication amongst students, teachers and the governmental authorities.
From April 1964 until the beginning of 1967 the discussions of the students' movement centred around two key points: the cancellation of the MEC/USAID agreement* as well as that of the Suplicy de Lacerda Law (n.4,464, November 9th 1964). Through this law the UNE - Students National Union was replaced by the National Students Directory and by unions on the level of the individual state. The students considered that the law had eliminated the autonomy of their corporation, besides forbidding any manifestation of strikes or political propaganda by the student groups.

In February 1964 the Suplicy de Lacerda Law was replaced by Decree number 228 which besides reinforcing some points already questioned by the students, added others.

With the refusal of the students to take part in the "Grupo de Trabalho da Reforma Universitaria"** and after the promulgation of the Institutional Act number 5, in December 1968, and the Law-decree number 477 in February 1969*** all demands have ceased within the universities.

The "½ Strike" in spite of not having succeeded, had the advantage of mobilizing public opinion concerning the university problem.

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* see under section on the university

** see under section on the university

*** The Institutional Act number 5 has eliminated all the individual guarantees of the Brazilian citizen, whether public or private, and has ascribed absolute power to the President of the Republic, who can act as executive and legislator as well. The Law-decree number 477 is applied exclusively to the students, teachers and administrative staff of the schools and represses any manifestation of political nature or protest within the universities. After 10 years both the Institutional Acts and the 477 decree were eliminated. (January 1979)
The analysis of the direction taken by university reform (8) demonstrates that the intense students' movement has been less a cause of the reform effectively initiated in 1967 than the realisation by the Government that the elimination of the former pattern of higher education would not threaten the status quo. At the beginning, the Government defended the interests of the more conservative segments against the offensive attitudes of students and teachers who advocated the reform. Later the Government changed its tactics. Under constant pressure from modernising trends within the country, pressure from the United States, and pressure as well from international, educational and cultural organisations, as well as facing the increasing threat of a student rebellion, the Government has opted for taking an authoritarian role in university reform. Since the Brazilian Government has assumed the position of the United States Agency for International Development (USAID) agents, who considered education as a phenomenon isolated from its political and social context, Brazilian university reform has been of a predominantly technical-administrative character.

More than ten years ago, the Brazilian university was organised in the sense of becoming an industry of technicians dedicated to attend industrial demand. Whilst on the one hand this situation has fostered a relative placidity in the students' sphere, on the other hand it has contributed to the deflation of a very polemic notion of education. What is to be feared is that, when the time comes for today's generation to assume leadership of the economic and political world, they will have too little to offer in terms of creativity and responses to the challenges posed to them.

One may well conclude with Favero (9) when she observes "... an educational reform requires change and change implies a coefficient of resistance, in so far as structures and persons are involved. On the strength of it, one observes that, in spite of the unrest caused by the university reform movement (which was in certain measure legitimized by the establishment of the Grupo de Trabalho in 1968) - university reform has, until now, been restricted largely to rearrangements in the formal structure of Brazilian higher education. The multi-dimensional creative and critical university, to which the Grupo de Trabalho
refers, continues to be held a utopia among ourselves”.

The GALLUP research, in the analysis of its director Carlos Eduardo Meirelles Matheus, presents the actual thought of the Brazilian student: "... Originating for the most part in the classes of higher income in Brazilian society, the university student begins to have among his class-mates, students who are descendants of workers and from the lower classes in rural areas. These lower class students embodying their families' social aspirations, are also among those who want to participate in the political life of the universities and country.

To the student majority the university is, in the main, a period of frustration; students realise the level of teaching is much lower than they had imagined it to be before entrance. They see evidence of the existence of an abyss between the theories they receive and the national reality they observe. They come, therefore, to the conclusion that the country's political structure does not take into consideration the economic reality of the country. The lower the power of acquisition of the student and his family, the more radical his posture against the failure of university teaching and the greater his attitude of opposition to the present political system.

Although the majority of the students are studying humanities, the critical attitude of the students attending courses associated with health sector is proportionally higher. Besides being originally from the lower income families, the medical students, through their closer contact with the economic and sanitary deficiencies of the poorest classes become more sensitive to the class differences and are more likely to agitate.

One may not state that their intentions are subversion and disturbance .... surely their opinions would not lead them to extreme radicalism. The majority are politically in the "centre" and economically liberal.

The student demonstrations all express their dissatisfaction with the social structure and are a manner of saying that they want to have new political options. The present political parties do not attract them and they state overtly their dissatisfaction in relation to the present political system.
Whether the teaching level is not what they had expected, whether the curriculum has concealed the national reality, and whether the university structure is more repressive than welcoming to their youthful projects, more and more of the students are realising that the fault cannot be ascribed to individuals, be they lecturers or administrators. The students are incriminating the present political structures which confine the university to a rigid technicality instead of opening it to social reality.

.... Being a privileged person by virtue of having reached the university, he more and more realises that such privilege is illusory, for it represents fewer and fewer opportunities for professional success.

The indications are that political demonstrations in the student milieu will continue.... Their visible objectives (up to now) are no greater than the undefined desire to participate in the politics of society and a restless pursuit of discussion of the national reality. For attaining this, they know that, above all, they need to assure their freedom to think and their right to say what they think". \(^{(10)}\)

Bresser Pereira\(^{(11)}\) analysed the characteristics and historical causes of the student revolts in 1968, when the world, both surprised and perplexed, faced a student revolution which was hitherto a phenomenon more common in underdeveloped countries. Although the central thesis of his analysis is not on the differences between student rebellions in developed and underdeveloped countries, some of his observations are of interest to our theme in this section. This author observes that the common points are more significant that the differences in student revolts in those two groups of countries. But he forewarns "... the ideology and the objectives of the students' struggle are different in the underdeveloped countries. In these countries there is not much sense to talk of Marxism and Anarchism. There is no sense in revolting against the consumerism of wealthy societies in countries where poverty and hunger are much more grave. There is no reason for discussion of leisure and freedom with relation to work when the shortage of jobs expressed in disguised unemployment is a much more serious problem". In these terms, the students'
ideology in the underdeveloped world should not be confused with that of the developed countries except on one point: both criticise radically the established order. However, the content of this criticism is different. In underdeveloped countries the students protest against dictatorship, imperialism, governmental inefficiency and the low level of teaching. They struggle for freedom of association and expression and for teaching reform. In the developed countries there is radical criticism of modern industrialised society, overcoming in this sense the Marxist criticism, which repudiates only one aspect of the industrial society—capitalism. Although a mixture of anarchism and Marxism, youth ideology goes beyond the limits of these doctrines to the extent that it criticises the very rationalism of which Marxism is a typical product.

And the library student?

There are no studies available for the country at large. One study was undertaken in 1974 of the students of the Minas Gerais School of Librarianship, as part of a larger research project. The study's objectives were to gather and analyse data to provide orientation for the planning of teaching, research and extension activities within this Library School. The project was divided into three sub-projects:

1. Analysis of the labour market for the librarian in Belo Horizonte, the results of which were published in 1976.

2. Analysis of the students of the Minas Gerais School of Librarianship, which was also published. The results are summarised below.

3. Study of the information user in Belo Horizonte, by type of libraries. This last study possibly will be developed by post-graduate students in a series of masters theses. Two studies have already been started, and one has already been completed on the geologist as a user of information. The other study will focus on the users of a special library.

In the second semester of 1974 there were 227 students enrolled in the undergraduate course at the school. 193 questionnaires were returned, a proportion of 84.6% of the total. Although the results of the survey concern only one of 29 schools, they may be looked upon as an example. It was found that the UFMG school students are:
Young: 47.7% are aged from 21 to 25 years.

The women represent almost the entire student body - 96.6% and the marital status of the majority is "single". (80.3%)

Over 44% of students are from the middle class, 26.9% from the working class, and 20.2% from the upper class.

81.9% of the students work regularly, of whom 48.2% support only themselves from the salaries they receive. However, a significant percentage of students work not only for their own maintenance but also to maintain their families.

The majority of the students' jobs have a direct relationship with the library profession (70.3%). This is explained by the fact that most of the students take in-service training and are paid for it.

84.2% of the students work 6 hours per day. The library course is offered during one period of the day (in the morning from 7 to 12 and in the afternoon from 1 to 6). The students, therefore, work part time but 15.8% of the students work for more than 7 hours daily.

Amongst the reasons for the choice of librarianship as a career, 21% stated they were familiar with the library profession before deciding on their courses. 15.6% of the students chose the course because they appreciate literature and 14.9% because of their personal relations with librarians. The opinion of relatives (5.4%) and the results of tests taken in order to choose a course career (3.4%) were not significant reasons for the choice.

The majority of the students (83.9%) do not attend, nor have they completed, any other university course.

With regard to the kind of library the students would like to work in in the future, the results were: special library (30.3%), documentation centres and specialised information services (27.2%), and university libraries (21.8%). These are also the libraries where more job opportunities are offered. The students' preferences may also be explained by the fact that these libraries are better known by them since they offer more vacancies for in-service training.
The students' preferences with relation to the teaching processes and for field work were 41.9%, and for lecture 23.5% with essays and seminars each receiving 1.7%. The high percentage of students who work part time and also attend courses may explain these preferences rather than those learning processes which require more reading, and active class participation.

The answers related to the students' expectations to future professional satisfaction were grouped in three categories:

The first category is concerned with the satisfaction connected with personal ability to be creative and original; to be able to use personal aptitudes and capabilities; to have new experiences frequently; to be relatively free of supervision;

The second category is concerned with social relationships embodying the following: dealing more with people than with things; exerting leadership; offering service;

The third category is concerned with the satisfactions attached to socio-economic status; obtaining a good salary; having prestige and social importance; and having a stable and safe future.

The satisfaction that the students expected to find in the profession was mainly linked to the development of personal abilities (41% of the answers). The expectations with regard to social relations and socio-economic status were almost equal (29.7% and 29%).

Incidentally, it is observed that the students' expectations of the salary that they would like to receive were greater than their estimation of the librarian's real salary. While 45.3% of the students knew the average salary of a librarian, only 6.2% of the students would be satisfied with such an average. But the real salary expectation was close to the real rate (68.4% of the students). The students were aware that the librarians' salary was low and their expectation did not surpass the reality.
The students evaluation related to the library curriculum has lost its validity since in 1976 substantial curriculum reforms were made, as for instance: the introduction of the basic cycle in the Department of Social Sciences, when during one semester the students attend classes in sociology, politics, economics and logic.

Students criticisms were taken into account for curricular reforms, although such criticisms revealed some inconsistencies and were more concentrated on individual disciplines rather than on the curriculum as a whole. (12)

The survey did not question the students' political attitudes nor their vision of the social reality. It may be that a characteristic of librarians is apathy with regard to their social environment. Emilia Sabor, from Argentina, as a visiting teaching in 1969 commented during her course at Belo Horizonte Library School: "Library students in Buenos Aires are like green house flowers", meaning that they isolated themselves from other politically active and militant students in the same faculty. Library literature makes reference to the problem in developed countries where there is concern about the selection of students. This should be undertaken not only in terms of the students' background, but also should take into account personality characteristics such as dynamism, human interest, extroversion.

In Brazil we have to take into account that library curricula - if examined in the context of the course duration - are still concentrated in the technical disciplines. The library environment generally does not expose the students to close contact with the less favoured segments of the society. One observes, for example, that the few existing studies of Brazilian reading habits as well as the studies of illiteracy were conducted by professionals in fields other than in librarianship.

Although a formal study of the library students who have passed through the experience of the basic cycle remains
to be done, one may perceive in Belo Horizonte students, for example, a growing interest in national problems. This is shown principally by their participation in the student movements and to a certain extent through their choice of topics for the discipline "Brazilian problems".*

Women form the largest part of the library profession in Brazil. One survey on the librarian labour market in Belo Horizonte showed that 99% were women. Analysis indicates that the profession's low salaries and status undoubtedly have to be correlated with the high percentage of women. This interpretation has been criticised by Miranda(13). However one must have in mind that various studies of the professions have demonstrated that, in general, the professions of high social status tend to be dominated by men and not by women. In the same way when a profession is increasing in esteem the men begin to look for jobs in it. Conversely, when a profession is being devalued, men tend to abandon it.

The sociologist M. L. Andrade in a recent interview, when asked on the determining of factors the high incidence of women in library profession in Brazil, stated:

Usually studies of the professions refer to social values. As women are less valued in society than men, those professions performed by women have also lesser social value. Primary school teaching is an illustration of this. When the first primary schools were introduced in Brazil, the profession was performed equally by men and women, and the primary school teachers of both sexes enjoyed a high social status. But when salaries were reduced, men abandoned the profession and it became gradually less prestigious and occupied exclusively by women. Medicine, for instance, generally enjoys high prestige in the western world and men predominate. In Russia the profession has lower esteem and is occupied by women in the proportion of 60:40 (1960 rates). The increasing socialisation of the medical profession is resulting in a reduction of salaries and is deterring men. In the entrance examination of the Federal University of Minas Gerais in 1978 the female candidates for medical courses were larger than for males. When in a particular

* The discipline "Brazilian problems" was compulsorily introduced in all Brazilian universities after the so-called revolution of 1964. The general climate of repression and censorship of those times has hampered this discipline really being related to the national problems. In general, the solution adopted in order to satisfy the legislation and at the same time avoid the risk of incurring penalties was to have the teacher acting only as co-ordinator, the students selecting the topics and inviting speakers, mainly from outside the university.
profession the number of women comes to be larger than the number of men, this circumstance becomes an attraction for other women and squeezes out men. Soon employers realise that the women adapt themselves more easily to lower salaries and poorer work conditions than the men do. With regard to librarianship, there are already signs of change through the advent of specialisation in the profession and better salaries. Therefore, one may expect a greater number of men in the library profession in the future. (14)

As already stated, the majority of Brazilian university students work and therefore do not devote themselves entirely to study. Such a circumstance poses difficulties for the feasibility of a programme requiring time spent in the library, in other words, a more independent study under the direction of teachers. In reality a great effort is required from the teachers in preparation of their lectures, which are generally enriched by audio-visual aids - transparencies, for example, structuring the teaching message through diagrams. In the Library School of Belo Horizonte, 100% of its teaching staff have attended courses of didactics, and authors like Rogers, Brunner, Bloom, Skinner, Piaget, are not strange to them. In other words, teachers have been exposed to a number of learning theories. In their daily practice they felt that the adoption of other teaching processes such as seminars and tutorials does not lead to the desired results, as the students do not read the minimum necessary for better participation and personal contribution.

Library literature in the Portuguese language is almost non-existent. The national periodicals on the subject, until now, have not provided a teaching literature, but have rather concentrated on communication amongst professionals. Some lecturers are already questioning whether such an orientation is the primary need in the country. These periodicals started to be published only in the 1960's and their content has been much more a local rephrasing of subjects which originated from other countries. Considering that the students reveal difficulty in the reading of foreign languages, efforts should be concentrated on the provision of a teaching literature.

An examination of the reading lists attached to library courses programmes in the countryprovokes serious doubts as to (i) whether the students will have enough knowledge of the English
language, the proportion of which is larger than other languages; (ii) whether they will have available time for reading half of what is recommended. There is, however, a trend in the gradual increase of bibliographical references to material in Portuguese language.

In Brazil it is a controversial matter whether to include the English language as a compulsory discipline in library courses. However, the importance of students having a good knowledge of the English language arises from the fact that most of the world’s publications and the main data bases are in foreign languages, particularly English. This language is also most frequently used within the field of library/information. However, the resulting increased exposure to ideas, methodologies, systems, their implementation and management which are applicable to the developed countries, should not lead to the automatic acceptance of them as a basis for solving library/information problems in Brazil. The published literature should reflect the original thoughts and ideas of library professions on library/information systems and services development in Brazil, so resulting in a growth of material published in the Portuguese language, independent of this existing language situation.

One of the factors contributing to library education and practice which departs from the realities of the country, can be ascribed to the almost total exposure of the library/information professionals to specialist literature of foreign origin. As yet, the transplantation of techniques and processes from foreign countries has not resulted in significant local adaptations and, even less, to the creation of solutions to local problems.


3.2 The students' perception of connections between the Basic Cycle in social sciences and the library professional cycle - a study undertaken at the Library School of the Federal University of Minas Gerais (UFMG)

In the second semester 1979 there were 195 students attending the professional course at Library School of the Federal University of Minas Gerais. The distribution of these students is shown in table 1, together with the number of students who answered the questionnaire.

TABLE 1 - Number of students enrolled at the Library School of the Federal University of Minas Gerais (UFMG) and the number of respondents. (Question 1) - 1979

<table>
<thead>
<tr>
<th>Term (*)</th>
<th>Number of students</th>
<th>Number of respondents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd</td>
<td>39</td>
<td>26</td>
<td>66.7</td>
</tr>
<tr>
<td>3rd</td>
<td>37</td>
<td>24</td>
<td>64.9</td>
</tr>
<tr>
<td>4th</td>
<td>48</td>
<td>35</td>
<td>72.9</td>
</tr>
<tr>
<td>5th</td>
<td>42</td>
<td>29</td>
<td>69.0</td>
</tr>
<tr>
<td>6th</td>
<td>29</td>
<td>20</td>
<td>69.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>195</td>
<td>134</td>
<td>68.7</td>
</tr>
</tbody>
</table>

(* ) The course at the Library School of the Federal University of Minas Gerais is composed of 6 terms. Each term has the approximate duration of four and a half months. Attendance during the first term is in the Department of Social Sciences.

The majority of the students (61.2%) stated that they had problems with regard to teaching when they finished their basic cycle of social sciences and commenced the professional library cycle. The next table shows the figures regarding this issue.

Footnote: See appendices I and II.
Students' perception (or not) of problems relating to teaching when they were transferred from the Basic Cycle to the Professional Cycle at the Library School of UFMG. (Question 2a) - 1979

<table>
<thead>
<tr>
<th>Term</th>
<th>Have had problems</th>
<th>Have not had problems</th>
<th>No answers</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd</td>
<td>8</td>
<td>17</td>
<td>1</td>
<td>26</td>
</tr>
<tr>
<td>3rd</td>
<td>18</td>
<td>6</td>
<td>-</td>
<td>24</td>
</tr>
<tr>
<td>4th</td>
<td>21</td>
<td>14</td>
<td>-</td>
<td>35</td>
</tr>
<tr>
<td>5th</td>
<td>19</td>
<td>9</td>
<td>1</td>
<td>29</td>
</tr>
<tr>
<td>6th</td>
<td>16</td>
<td>4</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td>TOTAL</td>
<td>82 (61.2%)</td>
<td>50 (37.3%)</td>
<td>2 (1.5%)</td>
<td>134</td>
</tr>
</tbody>
</table>

However, the students of the second term present a contrasting pattern with relation to those in other terms of the professional library course. Indeed, the percentage of students who had problems with the teaching in the second term (30.7%) was lower than those who had no problems (65.3%). This divergent pattern can partly be explained by the very limited contact of these students with the professional cycle, when they were attending to four disciplines, of which one is not part of the nucleus of librarianship, namely, general theory of administration.

Some students who answered yes (had problems) gave unfavourable opinions of the basic cycle. In the same fashion, with regard to answer no (had no problems) some criticism was made of the professional cycle. However, the total of these inconsistencies (3 among 91 opinions) cannot be interpreted as meaning lack of specificity in the formulation of the question.

The explanations provided with regard to problems encountered in the courses refer to different aspects. The major concentration of problems concerns the methodology of teaching (49.4%) and the behaviour of lecturers (25.8%).
TABLE 3 - The nature of problems encountered by students when they were transferred from the basic cycle to the professional cycle at the Library School of UFMG. (Explanations provided to the answer yes in Question 2.

<table>
<thead>
<tr>
<th>* Problems were related to:</th>
<th>Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2nd</td>
</tr>
<tr>
<td>The behaviour &amp; characteristics of lecturers</td>
<td>3</td>
</tr>
<tr>
<td>Contents of the course and general features</td>
<td>-</td>
</tr>
<tr>
<td>Methodology of teaching</td>
<td>4</td>
</tr>
<tr>
<td>Personal deficiency</td>
<td>1</td>
</tr>
<tr>
<td>No explanation</td>
<td>-</td>
</tr>
<tr>
<td>TOTAL</td>
<td>8</td>
</tr>
</tbody>
</table>

* The problems were not mutually exclusive.

The most frequent problem cited was the marked contrast between the two cycles. In the basic cycle the students are introduced to a true university environment, where the methodology of teaching is based on reading, field observations, and seminars. The use of discussions enables a high level of student participation. This leads to the students reaching their own conclusions under the lecturers supervision and orientation. The lecturers are rather more concerned with giving good lectures than in counting the number of students in the classes. The present Brazilian social, political and economic situation influences the orientation of contents of the courses.
In the professional cycle the lecturers are too concerned with the presence of the students and there is too much control during the examinations. The course is orientated towards techniques and fails to consider the purpose of the techniques taught. There are too many lectures and group studies. However, frequently one group ignores what the other groups are doing. A large part of the literature is foreign in origin. This, together with the included illustrations causes the students to doubt whether they will have the opportunity of applying this knowledge in their future professional life.

Only one student among 134 other students is recognised to have had problems in both cycles due to his deficient secondary education. There is in Brazil a general and constant criticism of secondary education teaching; this being that the students are not adequately prepared for their further studies. Nevertheless, from the point of view of the students, there was only this isolated opinion.

A smaller number of students in all terms (with the exception of the second term, as previously indicated) stated they did not have problems when they were transferred to the professional cycle (30% of the total number of students)

**TABLE 4** - Explanations provided by students having no problems when they were transferred from the Basic Cycle to the Professional Cycle at the Library School of UFMG (Answer no in Question 2) - 1979

<table>
<thead>
<tr>
<th>Explanations related to</th>
<th>Terms</th>
<th>TOTAL</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviour &amp; characteristics of lecturers</td>
<td>2nd</td>
<td>3rd</td>
<td>4th</td>
</tr>
<tr>
<td>Content of the course and general features</td>
<td>4</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Methodology of teaching</td>
<td>3</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>No explanation</td>
<td>1</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>* Did not attend basic cycle</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>10</td>
<td>6</td>
<td>10</td>
</tr>
</tbody>
</table>
* Those students who have already a background in the social sciences are not required to attend the basic cycle. This situation occurs when students have, for example, another degree.

The table shows that the largest percentage is that of no explanations.

The explanations provided point to similarity of teaching methodology, with both courses using apostilas. However, the apostilas of the basic cycle are considered to be more difficult. The content of the professional cycle refers to practical and useful things for their professional life. The lecturers of this cycle are more interested in the students' performance, whereas in the basic cycle, students are left to themselves.

A few students state that they have not had problems because there is no relationship between the two courses; "it is like finishing one course and starting another one".

**TABLE 5 - Perception of the degree of correlation between the Basic Cycle and Professional Cycle by students of the Library School of UFMG. (Question 3a) - 1979**

<table>
<thead>
<tr>
<th>Term</th>
<th>Degree of relationship</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>Little</td>
<td>Some</td>
<td>Much</td>
<td>No answer</td>
<td></td>
</tr>
<tr>
<td>2nd</td>
<td>3</td>
<td>12</td>
<td>8</td>
<td>3</td>
<td>-</td>
<td>26</td>
</tr>
<tr>
<td>3rd</td>
<td>7</td>
<td>13</td>
<td>3</td>
<td>1</td>
<td>-</td>
<td>24</td>
</tr>
<tr>
<td>4th</td>
<td>15</td>
<td>12</td>
<td>3</td>
<td>5</td>
<td>-</td>
<td>35</td>
</tr>
<tr>
<td>5th</td>
<td>11</td>
<td>6</td>
<td>9</td>
<td>2</td>
<td>1</td>
<td>29</td>
</tr>
<tr>
<td>6th</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>-</td>
<td>20</td>
</tr>
<tr>
<td>TOTAL</td>
<td>40(29.9%)</td>
<td>49(36.6%)</td>
<td>28(20.9%)</td>
<td>16(11.9%)</td>
<td>1 (.7%)</td>
<td>134</td>
</tr>
</tbody>
</table>

By examining the data related to the students' perception of the degree of correlation between the two cycles (table 5) it is shown that the highest percentage relates to students who see few connections (36.6%) followed by those who see no connection (29.9%). This totals 66% of the students. Therefore, the majority of the

** See note on page 181
students see few or no relationships between the basic cycle in social sciences and the library professional cycle.

Owing to the low specificity of the question there was a great variety in the explanations provided. However, the analysis of the explanations provided reveals two trends: (i) the student provides an explanation which is a statement of an actual situation (in his perception). He uses the verb in the present tense. For example: There is no connection "because librarianship is a technical discipline, whereas the social sciences are humanistic disciplines"; (ii) the student explains his perception by suggesting that there could be some, or could be more connection, but such connection is not occurring due to the methodology, or contents, or objectives. The next table shows that the number is highest for students in this second category.

TABLE 6 - Trends detected in the explanations provided by students with regard to their perception of connection between the Basic Cycle and the Professional Cycle of the Library School of UFMG. (Question 3b) - 1979

<table>
<thead>
<tr>
<th>Trends</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
<th>5th</th>
<th>6th</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no connection</td>
<td>18</td>
<td>15</td>
<td>9</td>
<td>10</td>
<td>5</td>
<td>57</td>
</tr>
<tr>
<td>Could have connection</td>
<td>11</td>
<td>9</td>
<td>29</td>
<td>17</td>
<td>14</td>
<td>80</td>
</tr>
<tr>
<td>No explanation</td>
<td>1</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>3</td>
<td>12</td>
</tr>
</tbody>
</table>

The number of no explanations provided is also high being almost 10% of the total of the students.

When asked for identifying disciplines of the Basic Cycle which are continued during the professional cycle, only 30% of the students indicate one or more disciplines.
### TABLE 7 - Identification of disciplines of the Basic Cycle which are continued during the Professional Cycle at the Library School of UFMG. (Question 4) - 1979

<table>
<thead>
<tr>
<th>Term</th>
<th>Number of students identifying one or more discipline</th>
<th>Number of students identifying no discipline</th>
<th>No answer</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd</td>
<td>12</td>
<td>10</td>
<td>4</td>
<td>26</td>
</tr>
<tr>
<td>3rd</td>
<td>3</td>
<td>18</td>
<td>3</td>
<td>24</td>
</tr>
<tr>
<td>4th</td>
<td>7</td>
<td>22</td>
<td>6</td>
<td>35</td>
</tr>
<tr>
<td>5th</td>
<td>7</td>
<td>20</td>
<td>2</td>
<td>29</td>
</tr>
<tr>
<td>6th</td>
<td>12</td>
<td>6</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>TOTAL</td>
<td>41 (30.6%)</td>
<td>76 (56.7%)</td>
<td>17 (12.7)</td>
<td>134</td>
</tr>
</tbody>
</table>

The high number of no answers (more than 10%), is likely to indicate difficulty experienced by the students in answering the question. The highest value (56%) is of students indicating no discipline of the professional cycle in which there is a continuation of studies of the basic cycle.

Table 8 shows which disciplines were indicated by the 41 students (30%) as providing a continuation to the disciplines of the Basic Cycle.
TABLE 8 - Relationships between the Basic Cycle and Professional Cycle identified by 41 students of the Library School of UFMG. These identifications refer to the continuation of one or more disciplines of the Basic Cycle in the Professional Cycle. (Question 5)

1979

<table>
<thead>
<tr>
<th>Disciplines of the Basic Cycle of the Professional Cycle</th>
<th>Economics</th>
<th>Logic</th>
<th>Politics</th>
<th>Sociology</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Administration Theory</td>
<td>31</td>
<td>-</td>
<td>9</td>
<td>7</td>
<td>47</td>
</tr>
<tr>
<td>Adm./Organisation of Libraries</td>
<td>9</td>
<td>1</td>
<td>9</td>
<td>11</td>
<td>30</td>
</tr>
<tr>
<td>Documentation</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Scientific paper presentation</td>
<td>-</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>5</td>
</tr>
<tr>
<td>Study of Brazilian problems</td>
<td>5</td>
<td>-</td>
<td>7</td>
<td>7</td>
<td>19</td>
</tr>
<tr>
<td>History of art</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>History of literature</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>History of the book &amp; libraries</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Paleography</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Practician</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>46</td>
<td>12</td>
<td>26</td>
<td>26</td>
<td>110</td>
</tr>
</tbody>
</table>

The major established continuation is between economics and general theory of administration; this is indicated by 31 students. The continuation of sociology, politics and economics in administration and organisation of libraries is similar and is ranked second.

One can see the dispersion shown by the discipline logic; this is again an indicator of the students' difficulty in realizing any more consistent and explicit connection between the two cycles.

The relationship according to the criterion of usefulness (the next table) presents a similar pattern.
TABLE 9 - Identification of the disciplines of the Basic Cycle considered to be useful for the studies in the Professional Cycle by students of the Library School of UFMG. (Question 6) - 1979

<table>
<thead>
<tr>
<th>Term</th>
<th>Number of students identifying one or more useful disciplines</th>
<th>Number of students identifying no useful disciplines</th>
<th>No answer</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd</td>
<td>11</td>
<td>11</td>
<td>4</td>
<td>26</td>
</tr>
<tr>
<td>3rd</td>
<td>1</td>
<td>15</td>
<td>8</td>
<td>24</td>
</tr>
<tr>
<td>4th</td>
<td>8</td>
<td>19</td>
<td>8</td>
<td>35</td>
</tr>
<tr>
<td>5th</td>
<td>9</td>
<td>17</td>
<td>3</td>
<td>29</td>
</tr>
<tr>
<td>6th</td>
<td>9</td>
<td>9</td>
<td>2</td>
<td>20</td>
</tr>
<tr>
<td>TOTAL</td>
<td>38(28.3%)</td>
<td>71(53.0%)</td>
<td>25(18.7%)</td>
<td>134</td>
</tr>
</tbody>
</table>

Only 28.3% of the students consider one or more disciplines of the Basic Cycle as being useful for the studies in the Professional Cycle. The percentage of students giving no answer is higher here than with previous answers to the questions. (18.7%)
TABLE 10 - The correlation between Basic Cycle and Professional Cycle mentioned by 38 students of the Library School of UFMG and the indication of one or more disciplines of the Basic Cycle as being useful for the disciplines of the Professional Cycle. (Question 6) - 1979

<table>
<thead>
<tr>
<th>Disciplines of the Basic Cycle</th>
<th>Economics</th>
<th>Logic</th>
<th>Politics</th>
<th>Sociology</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Administration Theory</td>
<td>17</td>
<td>-</td>
<td>2</td>
<td>2</td>
<td>21</td>
</tr>
<tr>
<td>Organ./Adm. of Libraries</td>
<td>17</td>
<td>4</td>
<td>15</td>
<td>14</td>
<td>50</td>
</tr>
<tr>
<td>Documentation</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Scientific Paper presentation</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Study of Brazilian problems</td>
<td>3</td>
<td>1</td>
<td>5</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>History of Art</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>History of the book &amp; libraries</td>
<td>1</td>
<td>-</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>History of Literature</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Practician</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Bibliography</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Reference</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Indexing</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Library planning</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Automation</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>42</td>
<td>15</td>
<td>29</td>
<td>29</td>
<td>115</td>
</tr>
</tbody>
</table>

The major identified correlation is between economics with general theory of administration, and organisation and administration of libraries. Again a dispersion occurs in logics, and in a minor degree, in politics and sociology.

In general, the data related to connections between the two cycles are inconclusive. Apparently they express, at the subjective level of the students, the objective situation of disconnection and low level of interaction between the two cycles.
1. The main conclusion of this study is that no proven connection exists between the basic cycle of social sciences and the library professional cycle at the Federal University of Minas Gerais. The students who attempted to show any connection between the two courses had difficulties in doing so in a consistent manner, besides the high rate of no answers provided. In general the data is inconclusive. Apparently the questions posed lay beyond the capacity of answering of the students.

2. Upon examination of the purpose of the basic cycle it is stated that:

The purpose of the first cycle in the social sciences is to provide the students with an integrated vision of the social sciences, having as the object of analysis present Brazilian society. In the first cycle, the student will have the opportunity of understanding that the particular aspect of his future professional course is part of a whole, to which such specialization must be referred (our emphasis) to be understood and explained.\(^\dagger\)

However, the evidence provided by this study indicates that such referral cannot be expected to be made only by the students. Whether an opportunity of understanding that librarianship is part of a broader social environment is created during the basic cycle in social sciences, it remains to the professional cycle the continuation and exploration of such approach. The lecturers of both cycles would have to attempt at new means and ways for connecting the two cycles.
REFERENCES AND NOTES

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(2) According to the research the possibility of error does not go beyond 3%.

(3) VEJA, 1977, op. cit.

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see also:


4. UNDERGRADUATE LIBRARY EDUCATION IN BRAZIL

4.1 The status-quo: The minimum library curriculum of 1962 and the first cycle of general studies

The purpose of this section is to discuss the elements of the present state of Brazilian library education, and what it is intended should be changed. Such elements relate to the content of the minimum library curriculum (undergraduate course) and to the building of a bridge between the basic cycle in social sciences and the professional library cycle. These are considered the first steps for relating library education to the life of the country.

For the development of this section the legislative requirements concerning the minimum curriculum, and the basic cycle will be taken into account together with associated literature on the minimum curriculum (criticisms and proposals for change). Additionally, results from interviews conducted about curriculum, together with personal experience of 15 years of teaching and the work on course coordination at the Library School in Belo Horizonte will be taken into consideration.

Initial explanations will be needed with regard to some features of the Brazilian educational system such as the concepts of minimum curriculum and of the first cycle, or basic cycle of studies for a better understanding of the subsequent discussion.

Under articles 9 and 70 of Law 4,024 of December 20th, 1961, on national education, the Federal Council of Education (CFE) was invested with the power of regulating the minimum curriculum for all undergraduate courses in Brazil. These minimum curricula, once established, became compulsory for the institutions throughout the whole national territory. It is also the responsibility of the CFE to stipulate the duration of the courses, the total number of credits and the minimum and maximum length of time permitted for the completion of the prescribed number of credits. The various institutions can add other courses to this minimum curriculum to complete the composition of their full curricula.

In the establishment of a minimum curriculum the
responsibility of the CPE includes the examination and approval of proposals originated by interested groups, such as schools associations and professional associations. Consequently the ultimate responsibility for the minimum curriculum content is linked to the very professionals involved.

Curricular reformulations, when felt to be necessary, are addressed to the CPE by the interested professionals, and a follow-up action is undertaken in order to obtain the required approval. However, it may be years before a reformulation is achieved, partly because of a lack of consensus among the groups involved or because of a certain inertia wedded to vested interests, and that of the intricate bureaucracy, characteristic of the Ministry of Education.

The minimum curriculum for librarianship was prescribed by the CPE in the parecer 326/62, which fixed a three year programme with the following disciplines:

- History of books and libraries
- History of literature
- History of Art
- Introduction to historical and social studies
- Evolution of philosophical and scientific thought
- Organisation and administration of libraries
- Cataloguing and classification
- Bibliography and Reference
- Documentation
- Paleography

A major criticism made of the Brazilian university is its lack of educational, financial and administrative autonomy. Within this criticism can be inserted the power of the CPE to stipulate the minimum curriculum for all undergraduate courses.

The first cycle of general studies was defined by the Decree – Law 464 of February 1969, under Article 5, with the following objectives:
- To ameliorate the basic general knowledge of the students, following deficiencies that were made evident through the university examination (vestibular)
- To give guidance on the choice of career
- To develop basic studies for the subsequent cycles.

The second objective "giving guidance in the choice of career" has lost its meaning, once the student makes his career option when applying for the entrance examination. The idea of entering the university without making a previous option, although pedagogically desirable, was found to be impractical due to circumstantial factors. In fact those universities that adopted this objective had to revise their practice. (2)

The first cycle of basic studies is part of the general guidelines provided by the Brazilian university reform, Law 5,540 of November 28th, 1968, and Decree - Law n. 464 of February 11th, 1969. The implementation of this law by the various Brazilian universities is not only at different stages, but it also assumes two different interpretations. Those universities that adopted the first objective are organising the first cycle with the aim of ameliorating deficiencies, whilst others are developing basic studies for future professional studies. These universities are generally being organised in 3 institutes, namely the Biological Sciences Institute, the Exact Sciences Institute, and the Institute of Social Sciences.

4.2 The basic cycle in social sciences - an illustration

The first cycle of social sciences at the Federal University of Minas Gerais was implemented, experimentally in 1973, to meet the fulfilments of the university reform. In that year, the basic cycle relating to professional (undergraduate) courses of law, accounting, economics, management, social sciences, and social communication was implemented within the social sciences department.
The Social Sciences Department at the Federal University of Minas Gerais, is part of the Faculty of Philosophy and Humanities. The establishment of an Institute of Social Sciences is still an open question at this university.

Owing to its experimental nature the implementation of a basic cycle in social sciences was evaluated in the second semester of 1974. The deficiencies in this basic cycle were identified not only by the students but also by lecturers and by the university central administration. As a result, the purpose of this first cycle was reformulated and stated in the following terms: "The purpose of the first cycle in the social sciences is to provide students with an integrated vision of the social sciences, having as object of analysis present Brazilian society. In the first cycle the student will have the opportunity of understanding the particular aspect of his future professional course as part of a whole, to which such specialisation must be referred to be understood and explained".

The Undergraduate Studies Council was given guidance by this general objective during the establishment of the curricular, structural, and administrative measures needed in the reformulation of the first cycle in social sciences.

The curriculum comprised the following disciplines, Economics I, Sociology I, Politics I, and Logic of Scientific Thought. These disciplines were considered to be the most appropriate in satisfying the objective of the cycle as well as providing a general and integrated view of the social sciences. At the same time one specific discipline of each professional course was included in the first cycle. Librarianship, for example, has the discipline "introduction to librarianship" as part of the first cycle. This discipline is compulsory for librarianship students and optional for the other students.

In the first semester of 1976 the courses of History, Philosophy, and Librarianship also became part of the basic cycle of social sciences.
The planning of the course was initiated in January 1975 by a team of lecturers appointed by their departments to become responsible for the teaching of the disciplines of this first cycle. During the planning period, definitions of the general objectives that would be capable of integrating the disciplines comprising the first cycle were established. Such general objectives would also provide orientation for the definition of specific objectives of each individual discipline. These general objectives were stated as follows:

1. To provide an understanding of the structure of the social sciences, from the unity of the society.

2. To analyse the principal problems related to the production of knowledge, especially those that comprise the formulation of social theories.

3. To facilitate a general understanding of the formation of Brazilian society, in particular the present stage of its development.

The working group warned that such an integrated vision should be critical, and should require emphasis in the diverse polemics attached to the social sciences. For this to be attained, a change in attitude was required on the part of the lecturers, together with a more active participation on the part of learners in the learning process.\(^3\)

The objectives of each specific discipline were stated as follows:

**Logic of scientific thought**

The Logic of Scientific Thought discipline claims to be an introduction to the study of social sciences philosophy. In order to attain this objective, an attempt is made to identify throughout history, the function of knowledge in several societies and to examine the implications derived from this in terms of the formation of knowledge. It also proposes to show the different scientific paradigms which gradually arise and are found to be the solution for epistemological problems in the social sciences. Comparing
such paradigms, one attempts to present social sciences as a type of knowledge which is different from scientific knowledge in the field of the natural sciences. Here it goes further into the special nature of the social sciences, researching its field of action, its scope and methods.

Once the question of knowledge is considered in the broad sense and the specific nature of the social sciences is examined, the course then goes into related problems, such as: science and technology, the role of science in society, the relationship between scientific theory and its practice.

**Politics I**

Politics I, as a discipline, has defined as a specific objective for a programme the analysis of State, proposing an initial approach, by the students, to the relationships between the state and society in Brazil. To achieve this aim, an analysis is made of the formation of the liberal state, making its constitution explicit at low levels of analysis: that of its emergence in the historical process and that of contemporary reflection on its appearance and constitution, through a study from Hobbes to Locke.

The second phase of the programme claims to achieve a critical comprehension of the democratic liberal state and its links with capitalist society, directing the analysis towards Brazilian situation.

**Sociology I**

The programme for this discipline is divided into three main units:

Unit I: Introduction to the study of social inequalities. The course begins with field work of a descriptive nature, in which an attempt is made to register the characteristics of some (five) boroughs deemed to be representative of Belo Horizonte and its population. The second part is a comparison and contrast of data collected during the field work and of data related to the country as a whole. No bibliography is available at this point. Other than this, emphasis is given to an explanation prepared by the student, without consulting books, so that the need for scientific explanation be felt
as a necessity on the part of the student in his relationship to the university than as an imposition of the university on him. This unit ends with a discussion of common sense and science.

Unit II: Theory
The second unit of the course consists of a study clarifying causes for phenomena found to exist during the field work and of the responses that sociology has offered to such problems, grouped into two major converging points: social stratification theory and social classes theory.

Unit III: Some aspects of Brazilian reality
The third and last analysis is aimed at making the student familiar with the study of some problems in Brazilian society which were found to exist during the field work. For this purpose, the theoretical instruments of the second unit are used. The development of this unit has been accomplished through two steps: the first, common to all students, makes broad reference to structural changes occurring in the last four decades. The second step, developed by student teams, includes the choice of study on one of the following subjects: agricultural exodus, Boia-Fria (Itinerant workers)\(^4\), labour policy and segregation victims\(^5\), underemployment, unemployment.... These subject matters constitute the final work of the course and are performed on the basis of specific readings and investigation done in newspapers and magazines in the course of the semester.

Economics I
This discipline introduces the student to a systematic discussion of current issues in the Brazilian economy. Two aspects are outstanding in this discussion: on the one hand, emphasis is given to the interaction of these economical factors with other dimensions - political, sociological, ideological of the society; on the other, emphasis is given to the polemic nature inherent in the social sciences through the contraposition of different approaches to these issues.
4.3 The lack of a bridge between basic and professional cycles

All the interviewees agreed on the lack of interrelationship between the basic cycle in the social sciences and the professional cycle in librarianship. Such a lack of connection was variously described as "technicist alienation of librarianship". This results in a teaching situation which does not take into account the socio-economic conditions of the country, and their implications for library teaching and practice. The technique must be linked to the existing social and economic environment, and must be at its service, it was remarked. The integration of both cycles occurs only in writing: in practice, both cycles are functioning as autonomous units with no interconnection.

With regard to the nature (curriculum composition), of the basic cycle, three divergent opinions were recorded. To assess the extent of the characteristics of the basic cycle on which these differing opinions were registered needs to be made clear. If the reference point for such opinions is the proposal for the new minimum library curriculum, it can be verified that the need for basic studies in the social science is made very explicit. The first area of studies in such a proposal is 'Social fundamentals of information systems'. This area is composed of the two topics 'Social communications' and 'Economic, political and socio-cultural aspects of Brazil'. These topics are translated into the theory of social communication, sociology, economics and politics.

It remains to be seen how the divergencies were expressed. One of the interviewees advocated a basic cycle of two-years duration, with the objective of "consolidating the students' ability of reading, writing, counting and thinking'. This opinion, to a certain extent, coincides with the idea of a basic cycle remedying the deficiencies of secondary education. It is supported by one of the objectives of the basic cycle as is stated in Decree Law 464, of 11 February 1969.
Two other interviewees expressed the desire for a basic cycle which is "more rich and diversified". When invited to specify the meaning of the above expressions, they suggested that disciplines from the exact sciences, biological sciences, and humanities should also be included in the basic cycle. Curiously, one of these interviewees had participated in the discussion and in the proposed new minimum curriculum. Whilst his opinion during the interview may be understood within the context of an ideal solution, the curriculum proposed is more consonant with the situation of what is feasible within the Brazilian University structure. These opinions may, to a certain extent, find support in Ortega y Gasset's concept of a cultural person. This concept is further extended by Ortega y Gasset when he asserts: "... the primary function of the university is to teach the great cultural disciplines, namely: (i) the physical scheme of the world (physics); (ii) the fundamental themes of organic life (biology); (iii) the historical process of the human species (history); (iv) the structure and functioning of social life (sociology); (v) the plan of the universe (philosophy)". In Gasset's proposal, professional education would follow this "apprenticeship to culture". (7)

The rationale for this lack of connection between the two cycles can be found in the various reasons presented by the total body of those interviewed. Only by identifying the causes of this lack of cycle interaction may an attempt be made at solutions for this problem.

Firstly, the presence of the basic cycle is a new feature within the structure of Brazilian university. This particularly applies to librarianship, some of whose courses (with the exception of Brasilia) were included at a later stage in the basic cycle, whilst others have still to be included. Secondly, the decree-law 464/69 proposed a conflicting set of objectives for the basic cycle. For example, the objective of ameliorating deficiencies in the wide range of subjects included in Brazilian secondary education conflicts with that of developing basic studies for the subsequent cycles.
The present organisation of the system results in successive levels of the educational structure accomplishing the role of amending the deficiencies of their predecessors. Such occurrences extend even to postgraduate levels. Whilst this situation is critical, it should be contained and not perpetuated. It is partly with this in mind that criticisms have been made of the university reform advocating the revision of the first cycle. (8)

The lack of connection which is being discussed here reflects, above all, the historical feature of the Brazilian university. It started with the establishment of isolated schools and faculties functioning as a mere administrative juxtaposition of unrelated professional courses. The first actions or attempts to surmount this pattern of university organisation were made only in 1934 and 1935 with the creation of the universities of São Paulo and Federal District (Rio de Janeiro). Although these attempts were unsuccessful, they represent promising landmarks in Brazilian university education. After almost thirty years (in 1961) many of those actions were reconstituted through the creation of the University of Brasilia. One area of emphasis was the role to be played by the central institutes of Brasilia University. These institutes were entrusted with the task of establishing and offering basic programmes for the professional courses, and were also charged with the responsibility of developing into centres for research and the formation of specialists and humanists. Also this even, owing to factors discussed in other parts of this piece of work (9) could not be fully implemented. The direction and progress of the initial project was interrupted and later modified. Indeed, several critical analyses concerning the implementation of university reform call attention to the existing contradictions between the postulates defended by the report of the "Grupo de Trabalho" and the legislation for this reform, and those occurring between this legislation and its effective application. (10)

Other identified difficulties relate to the very nature of librarianship as a discipline. Librarianship has
not yet significantly explored interdisciplinary areas, such as communication theory, sociology, etc., through the application of knowledge derived from these disciplines to its teaching and professional practices. Consequently, a literature which analyses the problems of the library field from the socio-economic-political points of view is non-existent.

On the one hand, lecturers in library courses tend to ignore what is being taught in the basic cycle. Even with the existing situation in which a general course 'Introduction to librarianship' is being taught within the basic cycle by a lecturer of the library course, who also takes part in meetings of that cycle, such actions have not been sufficient for the desired integration to take place. On the other hand, however, lecturers of the basic cycle are unaware of important factors and issues peculiar to the library/information field.

One of the interviewees commented that an examination of the programmes of library courses failed to show whether socio-economic and political aspects are taken into account in library courses. This is not made explicit in the programmes. In the programme of the course dealing with library automation, for example, there is a topic denominated "critical analysis". The doubt arises, however, as to whether such analysis refers to the Brazilian situation in terms of automation or whether it is a critical analysis of the automation process in general.

More than one of the interviewees, however, pointed out the promising emergence in more recent years of a library specialist literature in Brazil, mainly through masters' dissertations projects. Some projects that were submitted for approval, both in Brasilia and Belo Horizonte courses, were related to library problems seen under a broader socio-economic/political vision, and not just limited to technicalities.

With regard to the proposals for integrating the two cycles, generally it was pointed out that the professional cycle has the prime responsibility for enabling this process to be achieved. It was argued that the basic cycle caters for students that will be attending degree courses in several different fields, and therefore it is not to be expected that
the basic cycle design their courses to meet the interests of library/information field.

In a more concrete way these proposals indicated the programming of a series of seminars to be held with lecturers of both cycles. In the first phase the seminars would have the objective of exchanging information (objectives, courses content, teaching processes and problems). In a second phase the objective would be a debate aiming at reaching proposals for better integration.

It must be highlighted however, that such seminars, to be profitable, should be a two-way process, with intense participation of both groups involved.
4.4 Criticisms of the minimum library curriculum of 1962

In November 1979 a basic set of questions related to the minimum library curriculum in force, as well as to the problem of the connection between library education and Brazilian society, were posed to a group of Brazilian lecturers. The criteria for the selection of the lecturers were as follows: (i) to have been involved with library teaching for a long time, and (ii) to have written on library curricula during the last five years. The list of persons interviewed, and the set of questions presented to them are to be found in the appendix. (III and IV)\(^{(12)}\)

In view of the small number of interviews a quantitative treatment would not be of great significance. Therefore, a search was made to find a summary of the opinions heard and recorded in a tape recording, but without quoting the authors, except when the opinion has been published by the author. In any case, this piece of work makes no pretence to proceed to a rigorous discrimination between the objective opinions of the interviewees and of our personal evaluation.

The difficulty presented with regard to the questions posed was related to asking questions such as "which solutions do you propose..." One of the interviewees refused to answer with the argument that solutions are to be searched by a group of experts and not by individuals. No doubt this is a valid argument, however the interview undertaken for the purpose of developing this section can be included within the argument for seeking solutions from a group of experts.

The most frequent criticism made was in respect of the obsolescence of the present library curriculum structure, which were variously referred to as "out of date" or "out of phase" with the developments that have occurred within librarianship. This is quite correct, if it is considered that not only has this curriculum been in force for more than 17 years, but that changes which had already occurred in librarianship at the time of its submission to the CPE were
not taken into account on that occasion. (1962)

However, amongst the interviewees, a few indicated that the curriculum as implemented in 1962, was adequate for the past Brazilian situation. They considered that the library tradition in the country (if it is possible to talk of a library tradition in Brazil) was based on a classical and elitist model of French influence. Within this perspective, the Librarian, as a product of the bourgeois class was expected to be a scholar. In the event of this not being the case the individual could attend a library course and develop a scholarly outlook through the cultural disciplines present in the curriculum. The question could arise as to whether it was feasible to attain such a scholarly outlook with only 100 hours per discipline in the curriculum. It was implicit in the curriculum that the library in which the professional was going to work should have a collection composed of manuscripts and rare books, and that he could be a palaeographer. (Palaeography was, and continues to be, a compulsory discipline). Additionally he should know how to catalogue and classify books and be acquainted with their contents (the cultural disciplines would facilitate this acquaintance). However, in reality, codes and classification schemes soon became the symbol of the profession in the country. The existence of the library user generally is recognised only through the process of book lending, and then only in respect of demanding fines for overdue books.

Two other interviewees, also indicated the adequacy of the minimum library curriculum as implemented in 1962, but in a more positive manner in respect to its initial objectives. The discipline "Evolution of the philosophical and scientific thought", for example, was intended to provide the student with a notion of several sciences and to give him an understanding of the various branches of science and philosophy. This, and the other cultural disciplines comprising the curriculum were considered useful in making the students better equipped to deal with the problems he would confront in the reference services. Students could, also, identify the subject content of the books and other documents which they handled, so allowing for appropriate
classification. However, the contents of such disciplines distorted their initial objectives, with each lecturer emphasising the aspect which he considered most important or what he liked most. The purpose of the technical disciplines of the curriculum was to form technicians, and was assimilated from programmes developed in US schools. With regard to these technical disciplines, the curriculum was influenced by those first Brazilian librarians who had graduated in North American universities, such as Columbia University. At present, Brazilian librarians receive a mass of information through specialist foreign periodicals which is not always transformed into knowledge. No attempt is made to criticise and assess the information which is imported and attempts are made to apply it directly to the Brazilian libraries. The Brazilian librarian continues to be a technician and does not attempt to give a higher level of services. The minimum curriculum as it was, and continues to be applied, does not lead to a critical and questioning frame of mind. There results a routine repetition of existing activities. Less information needs to be passed to the students with an attempt to develop the students ability for critical assessment and evaluation rather than its memorisation.

There is, of course, a core of information necessary for every librarian, and as such it commands a place in the curriculum. However one must recognise that practice in libraries derives from basic principles which are capable of being modified through practical experiment. In the light of new demands in Brazil there is a crucial need to balance the practical with the theoretical aspects of library problems, departing from the overemphasis on technicalities and the emphasising principles of library practice. The provision of enough real experience by means of in-service training would give a basis for evaluating the principles of library practice and their application to the Brazilian situation. "The dogmatic fidelity to cataloguing codes, documentation norms, and classification systems" as expressed by Briquet has to be replaced by critical assessment. The cataloguing code of Vaticanum Library, for example, which was made to be
applied to an old and rich library of manuscripts and rare books, such as the Vaticanum Library, was followed with dogmatic fidelity for many years in Brazil. The replacement of that cataloguing code by the Anglo-American Code did not ameliorate the situation when taking into account the structural differences between the English and Portuguese languages. The Paris Conference on cataloguing principles did not cause the emergence of a Brazilian Cataloguing Code as one would have expected. As remarked by one of the interviewees - we are adopting "apparent" ready-made solutions rather than working out actual solutions for our problems.

Most of the interviewees commented on the curriculum content as being strongly orientated towards the formation of a "generalist" librarian. The so-called "cultural disciplines", which were intended to provide the cultural basis for the professional, were restricted mainly to the literary and artistic aspects of culture. With regard to the course "Evolution of philosophical and scientific thought" it was observed that as practised, the programmes concentrate only on the evolution of philosophical thought. This was largely due to the circumstances that the lecturers of this discipline originated in the Philosophy Department. With regard to "Introduction of historical and social studies" it is legitimate to question the use of the word introduction when there is no continuation of these studies during the course.

These criticisms were made more evident with the implementation of university reform, since lecturers who were previously scattered amongst various units, comprising and overlapping several disciplines, were brought together with specific departments. At the library course of the Federal University of Paraná, for example, "Introduction to historical and social studies" became divided into two parts. The "Introduction to historical studies" is now taught at the Department of History, whilst "Introduction to social studies" is taught at the Social Sciences Department. In this particular case the question may arise whether it is desirable,
or even possible, to teach social sciences without an historical approach.

From the point of view of the skeletal organisation, the curriculum is no more than a list of disciplines and does not provide any logical or sequential structure. There are those disciplines joined by the conjunction and, whose contents, whether or not they are completely independent, are not logically put together. Example is "Bibliography and Reference". The first is instrumental, whilst the second refers to function.

The general objectives of the curriculum were not made explicit, with the result that distortions were pointed out by the interviewees.

It was not intended in this discussion of interviewees' opinions and criticisms on the minimum library curriculum to belittle the relative importance of disciplines such as history of art, history of literature, evolution of philosophical and scientific thought, introduction to historical and social studies. The general truism that all people benefit from as much education as possible is rather pertinent to the librarian who deals with ideas, cultural materials, and information in a wider variety of fields.

However, one has to counterbalance the idea of a generalist education for the librarian with the limitations imposed by course duration and legal requirements as specified in the higher educational legislation, and financial constraints which pose the question of making options among possible and more pertinent alternatives. Furthermore, the emergence of postgraduate courses in the country has opened the possibility of attracting undergraduates with backgrounds other than librarianship.

Information, (how is it produced? Which are the forces limiting information flow? Who are the traders of information in present days? and so on) is not studied in any part of the library course.

Library courses limit themselves to the study of
how to process information for dissemination, based on the presumption that it is not up to the librarian to solve problems linked to the production of information. The fact that the information cycle, from its production to its use affects library performance may be illustrated by an account provided by one of our interviewees. A study undertaken in the Information Centre of the Bank for Economic Development (BDE) in Belo Horizonte, disclosed that the main problem of user dissatisfaction with regard to the information provided by that Centre, was linked to problems external to the Centre, i.e. it was the lack of reliable and updated data originating from the state organisations concerned. However, the librarians were bewildered to some extent and sought solutions through technical improvement in order to satisfy the user. Technical processing was changed, by indexing in more depth, by increasing the number of periodicals circulating, by starting publishing information bulletins, by closing bulletins, by producing technical reports analysing and summarising information, and so on. However, the user continued to be dissatisfied with the information provided.

The study conducted in that Bank (a Master's thesis in progress) has disclosed, as mentioned above, that the actual solution to the problem of user dissatisfaction was dependent upon the production of reliable and updated data by state organisations. If the information input of the centre is not good, the output cannot be good either.

During a meeting which brought together the information centre staff, users, the Bank administrators and the investigator, a proposal was made for solving the identified problem. The suggestion was to form a pool of all organisations dependent upon information provided by state organisations and exercise a certain pressure for the production of reliable and updated data.

The information centre of the BDE provides similar services to those provided by any foreign information centre. There are 9 working librarians and 4 economists who analyse and summarise information. Hence, the question may arise, to what
extent is the production of information the concern of the librarian?

The summary and analysis of the interviewees' opinions and criticisms on the minimum library curriculum has disclosed several problems linked to the attitudes of librarians in Brazil. Therefore the problems of the library curriculum are not limited exclusively to its inherent organisation.
4.5 The proposal for a new minimum library curriculum

There was a general consensus of opinion among the interviewees with regard to changing the library minimum curriculum: opinion also favoured the submission of the new proposal to the Federal Council of Education (CFS) for approval. However, before discussing this new proposal, one should not lose sight of the fact that a change of the minimum curriculum per se does not necessarily mean the advent of the needed changes in attitudes and in emphasis of those involved with library education.

Even if this proposal is approved by the CFS, one has yet to consider that, in general, any law fulfils a specific social function, that of consolidating a specific situation. The question is, then, whether a law establishing a new library curriculum can be relied upon to serve as an instrument of change, an implement to hasten the advent of library education relevant to the contemporary situations and connected with the needs of Brazilian society. Or, can a new library curriculum play an active part in a relevant library education, and through its own capacity for development undergo gradual changes that would facilitate the advent of the required change?

It has to be fully realised that different names may be used for essentially the same disciplines and methods of teaching. For example, even if it is desired that the main emphasis of the curriculum should be placed on principles, rather than on details and minutiae, this can be prevented by an entrenched and deep-rooted tradition of many years of concentration on detailed aspects.

Curriculum change requires committed leadership to overcome professional apathy and to hasten the tradition from past practices to newer ways. In addition such leadership will need to draw up a strategy for seeking ways and means by which this proposal for a new minimum library curriculum could in turn contribute to an effective change in library education.

However, there are signs favouring change, that could
be identified not only through the verbal opinions of interviewees but also through the dissatisfaction with the professional course manifested by the students in the questionnaires. Among the students it was seen that library teaching in Brazil includes the transplantation of ideas and techniques from abroad without any consideration of the different situations and values which gave rise to them.

This point can be illustrated by one account provided by one of the interviewees. The students of the library course of the University of São Paulo reacted strongly against one lecture on the historical development of reference services in the US, demanding instead an account of the Brazilian situation.

Library students, like the majority of their colleagues in the university, are showing an increasing interest in knowing and discussing the problems of the country, and they overtly show their dissatisfaction with a curriculum that is centred on techniques and their practical application, and where most of the subjects studied relate to situations and values that are strange to them.

There are, already, a significant number of masters' dissertations in progress which propose the study of library topics relevant for the formation of a body of knowledge on the libraries and bibliographical activities of the country. With this brief set of facts as a basis it is possible to identify currents of change which may favour an effective reform of library education in Brazil; a current constructive approach for this change is the proposal for a new minimum curriculum. This new curriculum proposal places the library within the social communication process. It is influenced by, and influences the larger environment within which it is situated. As a result a systemic approach is envisaged, in which the library is part of this open, dynamic system. The term library in the context of the proposal is used in its generic sense, and also includes documentation centres, information services or other organisations that perform the activities of acquisition, organisation and dissemination of recorded communication, to a greater or lesser degree of complexity.
The proposal is based on the diagram below:

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Units producing information ----> Units organising information ----> Units using information
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                      v                     |
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Starting from this model, a set of broader areas of study are identified as related to the library curriculum.

The proposal highlights the social basis of the profession, and the role of the librarian as an interactive agent (i.e. between the information and its user) with all the implications that this has for education.

The broad areas identified are as follows:

**Minimum Curriculum Proposal**

1. The social function of the library:
   - Communication theory, processes of social communication.
   - Information systems and the economic/political and socio/cultural aspects of Brazilian reality. Methods of social investigation.

2. User study:
   - Information needs and use. User: characterisation, attitudes, behaviour and education of the user.

3. Planning and management of information systems:

4. Information sources:
   - Information control: national and international organs responsible for the production of bibliographies, catalogues, indexes and other tools.
5. Selection and acquisition:
   Principles, sources and methods for the selection and acquisition of documents.

6. Information organisation (processing):
   Document registering, analyses of content, and forms of presentation. Indexing languages, including classification and cataloguing.

7. Information retrieval and transference:
   Reference service, retrieval processes and information dissemination.

This proposal was explained in a published article\(^{14}\), to which some comments are now added.

Firstly, it is noteworthy that this curriculum does not list disciplines but is structured into broad areas under which it is possible to combine several related disciplines. The explicit objective for this arrangement was that of allowing flexibility to the various courses in specifying disciplines in accordance with the needs of the region and its own resources.

A curriculum structured into broad areas is essentially an effort to overcome the compartmentalisation of disciplines so common in library curricula. It is possible to assume that this approach to organisation would permit a clearer emphasis on the common principles of indexing languages, for example, than would be possible whilst studying classification and indexing each as a separate entity.

The danger that arises in Area one (i.e. the social function of the library) a passive overview of generalisations of the subjects "communication theory", and "processes of social communication" is that it could offer little opportunity for active enquiring and active application to library situations. With regard to "information systems and the economic/political and socio/cultural aspects of Brazilian reality" (also included in Area one), there is the problem of building a bridge between the basic cycle in social sciences and the professional cycle, by continuing the approach initiated in the basic cycle. This approach relates (as
seen in the illustration of the basic cycle here provided) to take the Brazilian society as the object of analysis in those disciplines that compose the basic cycle. Such an approach, when translated into the topic "information systems and the economic/political and social aspects of Brazilian reality" means the examination of the role of information in society (the recorded information) and the functions of information services (libraries, centres/services/systems of information in Brazilian society). It also means systematic discussions of current issues in information services and their interaction with the political/economic/ideological dimensions of Brazilian society.

This approach is not to be limited to Area one, but is to be incorporated into the entire curriculum, in every discipline where it is pertinent. The stop-gap addition of individual disciplines in such approach, and not integrated into the curriculum as a whole, would result in inadequate assimilation of the social contributions of the basic cycle.

However, it must be pointed out that such dangers lie not in the actual organisation of the proposed curriculum, but in the manner in which those disciplines will be presented and taught.

Each proposed area of study presents structural coherence. The doubt arises with regard to sequencing in respect of Area three in the proposal (Planning and Management of information systems). This is an "integrating" area which draws to a greater or lesser extent on all the other areas. As a suggestion it is placed in a different order in the diagram which attempts to show the relationships between the foundation disciplines and professional disciplines. (see page 238)

The subsequent discussions concerning relationships between the two cycles will be based on this proposed new sequence.

Three kinds of disciplines may be distinguished in Area one. These are the basic disciplines of a theoretical
AREA 1

FOUNDATION DISCIPLINES
- Communication theory
- Social psychology
- Sociology
- Economics
- Politics
- Logic

INSTRUMENTAL DISCIPLINES
- Research methodology
- Statistics

PROFESSIONAL DISCIPLINES

AREA 2: INFORMATION AND ITS USER
- The flow of information, from its generation to its use.
- The user: needs, behaviour
- Education of the user
- The institutions responsible for information (storage, organisation, dissemination).

AREA 3: PRODUCTION & BIBLIOGRAPHICAL CONTROL
- Production & bibliographical distribution
- Bibliography

AREA 4: SOURCES OF INFORMATION
- History of books and libraries.
- Generation of information: people & entities
- Sources of information: primary & secondary
- Book publishing
- Information control; national and international organisations responsible for publication of bibliographies, indexes, and other information tools

AREA 5: SELECTION AND ACQUISITION
- Information sources and financial resources
- Planning & procedures of selection and acquisition

AREA 6: ORGANISATION OF INFORMATION
- Document registering
- Analysis of content & forms of presentation
- Indexing language (incl. clas. & cat.)

AREA 7: INFORMATION RETRIEVAL & TRANSFERRENCE
- Reference
- Retrieval & dissemination processes and programmes

AREA 8: PLANNING AND MANAGEMENT OF INFORMATION SYSTEMS
- General theory of administration O & M
- National Planning. National policy for education & techno/scientific information
- Library planning
nature which provide the basis for the learning of the task. Such disciplines are: Communication theory, social psychology, logic. There are also "Instrumental" disciplines serving as a means for the performance of the professional, such as methods of research, statistics. Factors from the external environment enable the students to identify contextual variables which have implications to the information, its users, and the institutions involved in its organisation/dissemination. These are economics, sociology, politics. The professional disciplines are concerned with the environment where recorded information is organised and disseminated. These are disciplines which make explicit principles and processes applicable to the professional performance, i.e. they relate to roles, tasks and functions.

Considering the dynamics of the learning process as progressing from the general perception to the analytical processes in order to reach the synthesis of knowledge, i.e.

\[
\text{General appreciation} \rightarrow \text{Analysis} \rightarrow \text{Synthesis}
\]

One may attempt to identify these dynamics in the proposed library curriculum.

**Area 2 (Information and its users)**

In order to deal with a general view of the universe of study, of the librarian, this area would have to be further extended to comprise the institutions concerned, i.e. the library in its generic sense. The diagrammatic representation of the communication cycle of recorded communication would be the initial approach for such a comprehensive view. This approach is concerned with theoretical disciplines as well as with disciplines from the external environment, as has been mentioned previously. It includes the examination of the information flow, from information generation to its use, taking into account social, economic, political and other factors which bear upon the flow of information. The user
of information is to be studied in more depth, involving both the initial general comprehension and the analytical processes. The effects of social, psychological, economic and other factors on the user's behaviour pertains to the general theoretical approach, whereas the analytical process is linked to the examination of users' study undertaken in the country. Such studies include those that are correlated with the reading habits of the population, and use as a frame of reference and as basis for comparison studies undertaken in other countries. This area borrows knowledge from all disciplines of Area one.

Ideally, participation of students in projects investigating the information user would contribute to the analytical process in this area. The Centre for Research on User Studies of the University of Sheffield pointed out that in order to carry out investigations on the user, skills from several disciplines are required (including sociology, psychology, market research, and statistics, as well as knowledge of the particular fields in which the studies are to be conducted. (15)

The library courses would have to compose interdisciplinary groups for conducting projects on user studies, if the teaching is really to progress from an overview to a more analytical process. Occasional references to the importance of the user have long been made in library courses without resulting in any significant change of the attitudes of most librarians with regard to the users of their libraries.

Areas 3 (Production and Bibliographical Control), 4 (Sources of information), 5 (Selection and Acquisition), 6 (Organisation of information) are analytical in nature, to the extent that they make explicit the tools, principles, and processes of selecting, acquiring, organising, retrieving, and disseminating information.

Each area of the professional course is closely connected with the others, and this connection is presented sequentially in the diagrammatic representation.
Implicit in the concept of "area of study" is the principle of integration. The integrated approach depends not only on the existence of a nexus amongst the disciplines composing the area but also the interaction of lecturers involved. This interaction can start from the communication of ideas to the mutual integration of concepts, processes, terminologies, and data.

With regard to Area 4 (Sources of information) the approach to study specialist bibliography has been in the best hypothesis (i) how to find out information in one specialist area, including not only bibliographical sources, but also institutions and people producing the information concerned. Practical exercises by students producing bibliographies on requested topics, using the main specialist tools are also common methods used in this approach. However, the most used approach is (ii) the memorisation by students of endless lists of bibliographical tools, most of which are never used in the Brazilian context.

Arising from these different approaches to the discipline, the question can be put: why not extend further the first approach by starting with an examination of the specialist field in the country? A team of students would develop studies based on selected readings during the term for a final seminar to be conducted by an invited specialist. Most of the specialist bibliographies can be treated under this approach, for instance, "The problems of science and technology in Brazilian society" which would cover the bibliographical study of several sciences and technologies. Agriculture, owing to its importance for Brazilian economy as well as the enormous social problems connected with it in Brazil, should have a separate seminar.

The study of bibliographical tools as they are used in sterile environments not conducive to the enhancement of their use or applied in a vacuum can be responsible for the students' lack of interest in bibliographical studies. Presently, Brazilian students do not accept having to play
the role of "bibliographers as political idiots" in the words of Benge. The section on the students has provided some evidence of students' interests and motivations.

Areas 3, 4, 5 and 6 are means: Area 7 (Information retrieval and transference) refers to function, and Area 8 (Planning and Management of information systems) embraces both aspects, although it is better envisaged as the apex of the course, or its synthesis. The level of treatment of Area 8 in the undergraduate course is open to question. Some factors that are considered to contribute to a decision relating to this question can be discussed: (i) foreign experience shows that the planning and management of information systems and services are interdisciplinary activities involving professionals of other areas such as management, economics, sociology, system analysis, and so on. A double qualification of the professionals involved is common in the developed countries. In Brazil, also, to a lesser extent, professionals of other areas are involved in the existent information services. This situation has provoked the protest of some librarians who consider it to be a "field invasion". Recently, the Federal Council of Librarianship discussed the question of whether to register the professionals originating from other specialisations who had completed a postgraduate course in library/information.

The problem seems to have its origin in the narrow education of librarians, which is limited to specific library techniques for the processing of information. This prevents them having a broader vision of the complexities involved in the planning and management of information systems. Librarians, when handling problems, seem to expect solutions to be found within the limited spectrum of their technical knowledge. It is to be noted that in other university courses, where more attention is paid to scientific methodology, professionals have a wider outlook to the approach and solution of problems. The difference in their respective professional education is a serious barrier to profitable communication, and frequently, librarians are considered to be inferior professionals.
This state of affairs seems to have been taken into account in the new curriculum proposal when research methodology was introduced amongst the foundation disciplines. However, the remark has to be made that an introductory discipline, without being retaken throughout the entire curriculum would contribute little to change the present situation.

The objective of undergraduate courses is not to create researchers, but this level of teaching has the responsibility of preparing students who are able to identify problems and seek their solutions during their professional life. (ii) In general, graduates of our library schools, in contrast to those of developed countries, do not have the opportunity of working in library services with a solid structure and tradition. They are, frequently, invested with the responsibility of planning and organising library services without proper experience and without either adequate supervision or the required resources. (17) (iii) The function of planning and implementing new systems as well as the improvement of existent systems (macro planning) have to be dealt with at the undergraduate level for even the smallest library is part, or can become part of a system. The study should be concentrated not only on the operational level but also in the design and development, theoretical foundations, and basic principles. This area involves specialised knowledge such as system analysis and computer application, which in Brazil are studied only at the postgraduate level. The discipline library automation is already a part of various undergraduate programmes and some courses offer the opportunity for students to undertake practical work in the computer centre.

With regard to micro planning, students should have the opportunity of practical work by carrying out a library project, after undertaking the studies concerning principles for making and evaluating projects.

The importance of students gaining a sound grounding of theory combined with good practical experience (where and when possible!) cannot be overemphasised since this will enable young professionals to work with reasonable confidence and reliability in an isolated environment. The difficulties
that presently arise in respect of gaining such practical experience are linked to the availability of good libraries, and the reasons for this situation have been discussed in other parts of this work.

Library planning has to take into account the economic model and the general policies of the country: these can be priority areas for development as are made explicit in governmental plans, and the responsible organisations for the formulation and implementation of policies for research, science and technology, and economic development.

Within the context of the library environment, the principles and methods that are applicable to their economic planning and management are largely those that have been developed by individuals having educational backgrounds and experience in other fields (for example management, statistics, information science). Whether or not librarians in Brazil are receiving a substantive grounding in the principles and practice of management, this is not being applied to library practice. Apparently, it is not being recognised that methods developed elsewhere and applied to other management environments are also suitable for the case of library management.

However, one development which has taken place in recent years has been the adoption of various rules (for example Bradford's law of scattering (18) and the 80/20 Rule (19)) to determine the characteristics of library core collections, acquisition and discard policies. In Brazil, such rules can be of very real assistance, since economical constraints and restrictions on book/periodical imports and acquisition results in the need for the adoption of careful selection policy. In respect of library management, the low economic motivation of those concerned with the running of libraries and other information agencies is explained, to a certain extent by the fact that such agencies, generally, are non-profit organisations. However, libraries cost money and students should be made aware of how to cost services and measure their effectiveness. In particular in developing library services the students should be aware of the law of diminishing returns. (20) Such a
law is being applied to almost every aspect of interlending, and indeed applies to library practice in general. (21)

Cost-effectiveness, for example, has received little or no attention in library curricula in Brazil. Although there is not yet empirical evidence, it may be the case that library and information units in Brazilian state organisations are operating at a low level of cost effectiveness.

The lack of understanding of management as to the nature of library and information work, and management's lack of foresight in considering the unit as having an integrated and balanced set of functions within the organisation can lead to employment of hasty, ill-conceived ideas being implemented which benefit only specific functions of the unit, or it can result in attempts by units to cover several activities for maximum number of persons with low resources and staff. (22)

Factors contributing to low cost effectiveness are, for instance: lack of communication with management and other staff of the organisation resulting in ignorance of the real information requirements of the organisation, lack of status of the unit within the organisation, a preoccupation with development of procedures for input processing of material, rather than consideration of user output requirements and an overenthusiasm about implementation of mechanised systems and their misuse. Garcia, in 1979, provided a report on the development of automation/teleprocessing as applied to library/information activities in Brazil. She remarked that the computer utilisation in Brazil for library/information operations has not been decided by criterion of volume of data to be processed, contrary to the occurrences in other countries. (23)

The general comments provided in this section were not intended to be comprehensive, but rather suggestive of some shortcomings of library education in Brazil.
4.6 Social sciences as fundamental to librarianship - considered from the point of view of the curriculum and from librarianship qua discipline

Extrapolating the Brazilian university sphere and its characteristics, it might be advisable to pose, and to attempt to answer, the question whether it is pertinent or not that library education should be preceded by a cycle comprising the fundamentals in the social sciences.

Firstly, taking into account the nature of librarianship (its subject matter, methodology and objectives) one attempt is made to summarise Nitecki's study on this matter. (24) Nitecki's model for a theory of library science presents the characteristics of (i) flexibility, so that it can respond to the variations in the nature of demand of library service; (ii) breadth so that it can accommodate the findings of specific sciences; (iii) logical consistency to assure a degree of uniformity in the formulation of general principles of library science; (iv) satisfactory definition, so that it distinguishes library sciences as an autonomous science.

It is implicit in desideratum (i) of Nitecki's model the social dimension of librarianship. It is concerned with the human and intellectual requirements of society of library services. These requirements alter as new social needs arise and intellectual requirements change. Desideratum (ii) highlights the interdisciplinarity of librarianship, it being on the one hand dependent on the knowledge of other fields, and on the other being subsidiary to all other fields. Desiderata (iii) and (iv) are common to any science.

With regard to the subject matter of librarianship, the model identifies it as being a triadic relationship between the book, the user, and the relative aspect of knowledge concerned.

An empirical, conceptual and pragmatic relationship exists which will be dependent on the context in which the knowledge is being effected. Furthermore, the same three aspects are related to the various objectives and procedures of library practice, such as book acquisitioning, readers services. The scope of the subject matter of library science
will depend on the extent of the areas of knowledge common to each element, since each is related in turn to different subject disciplines. Consequently, the scope of the subject matter will vary for each instance since it is dependent on the extent of similarity between these areas. According to Nitecki these complexities limit the possibility of having one unified theory of library science.

Leaving aside for a while Nitecki's model (we shall turn to it later with regard to the aspect of methodology) one has to consider the question of the position of librarianship in the total knowledge universe. This position is not determined by the subject matter or methodology comprising librarianship, but by its objectives, i.e. the aim behind the practical application of its procedures and knowledge content. To fulfil its purpose of enabling segments of society access to recorded communication media, librarianship has become part of the total communication process. As a result, the profession has taken on a social dimension. As an integral part of the social communication process librarianship can be classified as one of the social disciplines. The highly practical nature of its operations and their applicability to a very broad knowledge base characterises librarianship more as a technique than as a science. The remark has to be made that its characterisation as a scientific technique rather than a science does not diminish its importance or status.

Reconsidering Nitecki's model, we shall examine the question of methodology. He observes that the methodology of librarianship employs three kinds of relationship between book, user, knowledge, in the study of library operations. Such studies involve (a) the use of empirical methods for obtaining measurable characteristics, such as the rate of success of provision of required factual information; (b) the use of conceptual methods for summarising characteristics, viz: through the similarity between the contents of a document and the expectations of the user; (c) the use of a contextual approach in determining overall changes in, for example, user attitudes in
response to alterations in particular library operations. Nitecki extends further his analysis in terms of the
(a) scientific (procedural/empirical): (b) theoretical (conceptual); (c) practical (contextual) approaches. These
are not examined here owing to its peripheral interest in the present discussion.

Nitecki departs from the general idea of science and scientific method and attempts their application to library
science. His approach, although rather formal, is consistent, presenting four elements of a formal logical order: it
identifies the universe of discourse of library science and its subject matter; it specifies possible relations within
this universe, and tries to make explicit certain laws.

How is the subject matter of librarianship and its objective translated into curricular organisation? In other
words, the identified triadic relationship between the book, the user, and the knowledge (subject matter) and the application (objective) of the knowledge gained from those studies associated with such subject matter. What is the purpose of librarianship? What is the role of the librarian and what knowledge does he need to grasp in order to perform his role?

Shera has defined the librarian as a social agent with the function of maximising the social utility of graphic
records for the benefit of the individual and, through the individual, of society. The role of the librarian, then,
is that of a mediator between man and books, where book is a generic term that includes all graphic records. (25)

From the point of view of the role ascribed to the librarian, one may infer with regard to the book that knowledge which is of use to the librarian. As a mediator between man and book an understanding of the general process of social communication is required by the librarian. Whether or not a discipline such as the theory of social communication provides the foundations for this understanding, further aspects will have to be explored in the curriculum. The particular aspect of social communication in which the library profession is involved is the flow of recorded communication. As part of this process, an awareness of all its steps, from
the generation to the assimilation of information by the user, will enable a better performance by the librarian. Translated into curricular terms, topics such as economics of book production, the organisation of the book trade, and the growth of periodical publishing, are to be included in the curriculum. It is the historical perspective which explains the present situation of the book in our society. Therefore the history and evolution of the book concomitant with the history and evolution of those institutions responsible for its storage and dissemination, viz: The libraries need to be considered.

The flow of the book (in its generic sense), i.e. the flow of recorded information and the obstacles posed to its free circulation (such as censorship, legal restrictions relating to the import of books and other media, as well as restrictions due to considerations of industrial, commercial or political secrecy) are contextual variables, external to the librarian's environment, but which interfere with his mediating role. Therefore, there is a need for him to be aware of these matters.

All the aspects so far mentioned are social aspects as they affect the library environment. The disciplines which provide the basis for their understanding are politics, sociology and economics.

The subject area concerning the second element of librarianship, the user, involves basic studies of social psychology. It is social psychology, in particular, that studies the behaviour of who produces and of who receives the message (communication). The user is also part of the social environment. Therefore, there is a need for a basic knowledge of those disciplines which are concerned with the social environment, such as sociology, economics, politics, and history.

The interests of librarianship include the identification of user needs and the information inputs required by different kinds of users at any given point of place and time. Recognition of the existence of different modes and patterns in the information seeking behaviour has led to the development of methods of studying the user and
his patterns, which take into account social class, cultural and associated differences. These studies are used to draw the implications for the information supply, information structure, and the organisation of library services.

The producer, distributor and user of information are not independent of each other, but are related in various ways within the overall social system. A user study approach which goes beyond focus on methods of quantification and reliability to validity, needs a more sociologically orientated approach, which attempts to study both the producer and the user of information in terms of their relationship to each other, to their own and other institutions, and within the framework of the appropriate social systems.

Closely linked with user study, is the problem of user education, for the capacity of individuals or groups to use library information is unequal. The invention of other methods for recording information, besides marks on paper, has interposed an increasingly complicated technology between the information and its user, therefore increasing the need for user education.

The third element in the triadic relationship of the subject matter of librarianship, the knowledge, can be considered from two perspectives. One embraces the totality of knowledge, from A to Z. This involves special knowledge of specific subjects or groups of related subjects from the librarian or information specialist. Here, the main task is to analyse and interpret information, therefore the knowledge of the subject becomes the most important requirement, the professional knowledge being a secondary consideration. Curricula designed for post-graduate courses which are opened to graduates of other areas, are included within this perspective. This level of library teaching does not exclude the second perspective, the role of knowledge and information in society - in research and development activity, in planning, in decision making, in problem solving, in the learning process, and in the day-to-day life of individuals.
The important aspect of knowing characteristics of information resources in society and practical insight and still in accessing and utilizing these resources is also included in this second perspective.

The sociology of knowledge which was first studied by Bernal (26) and other writers who embody the social epistemology is also to be considered under this approach with regard to knowledge (the third element in librarianship).

The knowledge handled by the librarian is produced in well-determined social contexts. Such knowledge has its objectives, its agents and its mode of operation influenced, and to a great extent conditioned, by this society. Therefore there is a need for librarians to be acquainted with the existing patterns of his society.

It remains to be indicated the institutions where the profession is exerted, i.e. libraries and other information agencies. At this point it may be useful to quote Christ when he says: "Since the library is concerned not only with the records of human activity but with the human person as well, its basic framework is as a social institution. And, since the library exists in social experience with other social institutions, it is necessary, for a proper understanding of the purpose of the library, to consider its relation to society as a whole and to the diverse elements within society which comprise the social framework". (27)

In conclusion, it may be postulated that integrated studies of the social sciences (social communication, social psychology, sociology, politics, and economics) are likely to provide the theoretical framework needed for the understanding of problems pertaining to the specific field of librarianship.

However, a basis of a real and tangible connection between such theoretical foundations and library problems remains to be attempted by the profession itself. The establishment of basic studies in social sciences, as is the case of Brazilian universities, may be an effective step in the right direction of ascribing social merit to the profession. A
reasonably clear idea of the magnitude of the problem of connecting basic studies in social sciences and the library professional course was provided by interviews with lectures and questionnaires applied to the students.

The curriculum is primarily an interactive process amongst the environment, persons, and institutions within this environment. The objective of this process is the education of individuals to perform in this environment. Therefore it is not enough to provide the librarian exclusively with professional techniques. It is also necessary to equip him with a wider vision of the total communication process, emphasising the particular environment of his profession.
4.7 The meaning of research at the undergraduate level

Research and extension programmes, when undertaken concomitant to and integrated with the teaching process, can be conducive to a better knowledge by the student of the social environment in which his profession is placed. (28) From the commencement of their university course, the participation of the students in some research projects is one of the ways in which the students can become acquainted with a realistic picture of the situation of the country. Such student participation should not be confused with the formation of researches. This cooperation should be construed as education by research and not education to undertake research.

Student participation in research projects should, at minimum, involve an awareness of the objectives of the study together with the reasons for the methods chosen. For the student to benefit from his participation in such work, his cooperation should not be limited to the execution of tasks, but should include discussion on the scientific meaning and utility of each variable, and of each question posed. Adopting the same approach he should take part in the preparation of questionnaires, interviews (differences of interviewing people with diverse cultural features). He should also be introduced to the processing of data obtained by the survey.

As a frame of reference, the student should be encouraged to examine critically correlated studies undertaken in the country and, if possible, elsewhere in the world.

No doubt, the proposition here suggested refers to an ideal situation, and the difficulties in providing participation for all students in the few research projects would not be an easy matter. The gradual application of pilot projects could be an attempt by means of which these problems are overcome. (29 )

The crux of the problems underlying the starting of research projects is the librarian's inexperience in research activity. A vicious circle can be identified, where
librarians do not undertake research because there are no financial resources available. Financial resources are not allocated by the organisations concerned to an area like librarianship since it does not have a tradition of research. This vicious circle has to be broken at a certain point. Several reasons exist for the need to break this circle.

Given the postulates that (i) the students learn better by means of creative team work (participation, for example, in research projects) than by traditional teaching procedures and that (ii) unless some investigation takes place, professional teaching becomes unsuitable as a result of being detached from reality, teaching should not be disassociated from research. In addition the adjustment of teaching to the actual requirements of the profession will determine to a lesser or greater extent the integration of the professional into his environment.

Systematic investigations with objective purposes are more conducive to the accretion of knowledge than knowledge based only on the traditional patterns of thought of eminent experts, or of opinions that in many cannot cannot be substantiated.

From the point of view of the historical development of librarianship in Brazil, an account is provided by Lima (30), who draws attention to the fact that librarianship was introduced in Brazil by the Americans. The establishment of the first Brazilian School of Librarianship in São Paulo was financed by the Rockefeller Foundation. Consequently it followed the practices of American librarianship. The greater proportion of technical bibliography used by Brazilian libraries comes from the US. Accordingly, the philosophical principles of the profession, the statistical data and patterns that allow the planning of library services, and finally, the fundamental basis of Brazilian librarianship, are based on American practice and experience.

However, Brazilian problems concerning the organisation of libraries are fundamentally different from those that resulted in the establishment of American librarianship. In Brazil,
librarianship was introduced in the Twentieth Century when there was already a great bibliographical store without any organisation, while in the US the library technique appeared much earlier, following the formation of great collections in libraries which were then organised. The Brazilian problem was reorganisation rather than organisation of collections.

It is needless to emphasize the historical, cultural and economic differences between the two countries, which cause entirely different situations to appear, and which also require different solutions. One cannot deny that Brazilian librarians were successful in improvising adaptations which secured the undeniable development of libraries in the country. These improvisations solved specific problems, but were not based on analysis and critical assessments of situations common to several libraries. They had limited use and contributed little to the necessary foundation of a librarianship fitted to the Brazilian situation.

Hence, library teaching in Brazil has been suffering a serious distortion that influences the professional performance of its graduates. Even in present times, what is taught in library schools comes from the American experience with European contributions. Once graduated, the Brazilian librarian meets concrete situations which cannot be equated with, or solved by, the simple transference of theoretical solutions applied in foreign countries.

Amongst the existing statistics, those originating mainly from the Library Association (UK) are available to plan changes or new libraries. However, although the statistics provide actual data, they do not fit the Brazilian situation. Plans that are described in this manner are taken more seriously than they should be, considering the human and financial resources available in Brazil. As a result the well-meaning managers cannot implement the plan; they abandon it, often when it is already half undertaken and retrace the plan to make an improvisation. At first this disturbance represents an apparent economy but soon it becomes uneconomical.

As a result, the profession of librarian decays,
blocking not only the enhancement of an appropriate labour market, but more importantly, creating serious obstacles to the technical and scientific development of the country.

The above account highlights the need to start at very elementary levels. These levels include a systematic collection of data about the existing libraries, their operations and activities, the characteristic tendencies of their users, followed by critical analysis of the data collected in order to reinforce their related points and establish in this way the basic principles applicable to identical situations in the planning of the Brazilian library system.

The responsibility of library schools in the development of programmes is linked to the provision of a support for the professional teaching at a higher level. As pointed out by Saunders, the library school is a natural base for research and development in library and information studies. In such an environment research is more easily carried out than in libraries and other information agencies; where the main concern is the job in hand.

The development of research programmes in library schools has to be considered in the light of historical recognition of universities as centres of scientific research. As pointed out by Stepan (31) in industrialised countries universities are felt to be the most important centres of research. Historically, in Western Europe, the university was associated with the very emergence of the new role of scientists in the seventeenth century. Although in the late seventeenth and throughout the eighteenth century, scientific societies rather than universities were important in maintaining interest in science, by the middle of the nineteenth century the university was well on its way to reasserting itself as the single most important centre of science. The idea of "research science", in which university professors undertook original investigations and introduced students to research. This was originally an innovation of the German university. This idea spread to other university systems.

Because of the historical connection between universities and science, and because there exists almost no examples of good science in the industrial world without a good university system,
it is assumed that the university will also be the home of science in the developing countries.

However, the structure of the university in many developing countries is such that this reasoning may need modification. The training mechanisms found in these universities are not always favourable to the development of research. University education is extremely "academic", with students being led step-by-step through undergraduate training, and introduced to research only in the final postgraduate phase.

The imbalance between supply and demand in science common to developing countries (this is further discussed in the section of science and technology) and the isolation of the university from industry creates problems as it reduces the possibility of exchanging ideas and information.

The disciplinary structure of the university itself prevents effective interdisciplinary contact from occurring and from a group approach to research. Lecturers often have part time appointments which mean that the time they have available for research is reduced. Universities have been proliferating and many of them are far too small to be really viable.

All these problems relating to the planning and implementation research programmes also apply to library courses.

A specific problem underlying research in library information field is that some areas of investigation (especially studies related to the user of its services) involves knowledge from other disciplines and are, therefore, ideally carried out by interdisciplinary groups. In order to ensure an interdisciplinary approach to participation in research projects of this kind it would be necessary to attract and involve people of other departments in the university. The basic cycle in social sciences and the new curriculum proposal (which includes disciplines such as social communication and social psychology) will, in theory, enable better contact with the other specialists that are to be seconded to user studies projects.

All these circumstances discussed by Stepan explain why, in spite of the law that established the Brazilian
university reform (Law 5,540 of November 28, 1968) which stated that the purpose of "university education is research, (our emphasis) the development of science, letters, and arts, besides the professional formation to a high level", that in practice research continues to be a secondary and supplementary activity in Brazilian universities, whereas teaching is their main activity. With the exception of a few basic disciplines and of some fields with a more ancient tradition of research, such as the biological sciences, in most areas researches are unsystematically and fortuitously undertaken. Of 31 universities evaluated in 1975(2) only 4 were stated to have a general programme of research. These 31 universities were the federal universities. Indications are that the situation in the private universities as well as in isolated institutions of higher education must be more lamentable.

This lack of development of programmes of research is in great part due to the finance available to the universities. The meagre financial resources allocated has resulted in the more research orientated institutes and departments seeking alternative sources of financial resources. A substantial part of the researchers time is consumed in negotiations with financial agencies. The scientist is acting more as an entrepreneur than a researcher. It has been suggested that in the country there is a new profession, that of "FINtPeiro" or in an approximate English translation, that of FINtEman.(33)

Having considered the patterns developed by the university scientific communities in Brazil for obtaining financial resources, what are the alternative channels available for such resources in the field of library/information research? Information systems and services in Brazil are mainly linked to governmental organisations. The Brazilian Institute of Scientific and Technological Information (IBICT), as a government organisation for information in science and technology, could contact such organisations and identify problems that need to be investigated. Funds for such investigations could be directed to those library courses which have the most human and material resources available. This would not impede IIBICT in undertaking its own programme of research.
For the case of the public library sector, the National Institute of the Book (INL), even though it has meagre resources, is the organisation most appropriate to detect the problems that need examination. Funds provided for such studies can be directed by this organisation to the library courses in the regions of the country appropriate to where the problems are manifest. In a similar manner, the librarians attached to the State Secretariat of Education, itself an organ responsible for primary and secondary education, are those persons most suited for identifying problem areas in the functioning of, and services provided by, school libraries, and for governing the distribution of funds for investigations by library courses in those locations where the problems occur.
4.8 Extension activity in library education - some considerations

The extension function of the university allows the development and maintenance of a closer relationship with the different sectors of society. Extension involves the principle that in addition to the traditional scholarly activities, the university must explore the possibilities of action, training, dissemination and funding in a context which is larger than the campus or the university community, namely, the society whence it is derived and to whom it must extend its services.

An analysis of the legislation of the Brazilian University Reform reveals that extension activities are not, obligatorily, linked to any organ of the University structure. It is optional for the Universities to establish a special coordination for extension activities. Therefore, the extension function is not considered in the same way as teaching and research, but only as one of the modalities of these other functions. (34)

University extension programmes, as a means of offering both education and personal improvement to members of the community and eventually providing prospects for the retraining of professionals through their continuous education are still scattered thinly throughout the country. The extension function is considered more as a channel for the expansion or completion of academic work, and has assumed very frequently either the characteristic of paternalism or has used the community as a testing ground.

Library extension taking the form of the processing of book collections in small municipalities may be good training for students. However, for the community, what guarantee does it have that the library programme will continue? If the processing activity is not followed by the actual motivation and training of people from the very community, who effectively keep the library available to the users, the purpose of the extension function will not be accomplished. A high sense of professionalism compounded by an unmeaning fear of competition in the labour market may hamper the best initiatives of library schools in the development of the extension function.
The education of the user in assembly programmes combining library courses and all kinds of libraries can be a legitimate extension activity. However, in Brazil, the need for an intensification of user education in all types of libraries and at all levels of user education background is very apparent. It is still usual to find university students who are unable to use the most common reference tools, such as encyclopaedia or even the library catalogue.

The university extension function at the teaching level can be explored by providing (i) special courses for professional retraining, reopening in this way the school to its alumni; (ii) special programmes for the intensive training of library assistants, attending the course in response to the effective or potential labour market demand; (iii) for the production of teaching material, e.g. visual aids, for different kinds of user education.

Another area which would benefit from an extension of the activities of library schools is that of experiment and investigation. Library courses could become involved in the planning and establishment of small public libraries to serve both urban and rural communities.

At the cultural level, as remarked by Ribeiro(35) extension activities are only effective when the university has the support of instruments for mass communication such as radio, television, print and cinema. In a society with vast segments still caught in a struggle against cultural alienation it is by means of such instruments that the university can contribute to raising the level of education and information of the population.

These are the most traditional modalities of extension activities. A more creative way, not very explored yet, is to link the activities of extension to the concept of communal participation. This concept is in opposition both to the dehumanising tendencies of bourgeois individualism and to the diverse existent forms of state intervention, of either a left or right wing nature. However, a consciousness is growing in all segments of the population of a communal alternative for the solution of their problems.
The communal movement is based on a social philosophy of humanistic inspiration: the human being — and not the capital, the state, or the political party — constitutes the subject, the foundation and the ultimate aim of social life. The idea of participation is the fundamental feature of the communal movement.

It is not difficult to envisage the power of this communal movement, when the strong structures of the modern world tend to reduce the man to a passive role within society. Crushed by political, economic and social fears, men in Brazil have lost confidence in their personal actions and wait for the government, for the enterprise or for other organisations to solve their problems. (36)

The movement attempts to replace mass mechanical behaviour by an awakening of human conscience.

There is already considerable evidence that people living in the poorest and most disorganised communities can be stimulated to bring and to discuss their survival needs with a view to solving their problems on a community basis. (37)

This movement in Latin America is mainly linked to the Catholic Church which has experienced radical transformation in its action. Due to the importance of the role of the Catholic Church a comment has to be made in respect of the background to, and characteristics of, this radical transformation.

The Catholic Church has had in the past close ties with the political power of Portugal. It was due to the strength and level of this association, that the aims of evangelisation and of conquest have become merged, giving rise to an ambiguous situation. This characteristic as for the rest was common to the whole of Latin America. An exception to this was the example offered by Father Bartolomew de Las Casas, in Mexico, when he criticized XVIth Century Spain. In reality, the Catholic Church had been for centuries the image of the established order. From the Renaissance onwards it was transmuted into an auxiliary force of the dominant élite, its function being that of making sacred the system of values, beliefs and norms which had guaranteed the established order.

However, as the industrial revolution gained momentum,
the state became more bureaucratic and society became better organised, with the result that the state was in a position to make its own system of sanctions more effective. In these terms the role of the Church in "sacrilising" the established order became increasingly dispensable. Therefore it was imperative that the Church should find new roles. Notwithstanding, the Catholic Church fought with all means at its disposal against this modern world that was threatening it. The Catholic Church, after losing the elite, was seeing the popular masses abandoning it is favour of atheism, or in the case of Latin American, for religions found to be better fitted to their needs of social adjustment to urban life.

In the face of this dangerous situation, the Church envisaged a deep process of reconstruction in all its sectors. Such a process was marked in the world sphere by the great efforts of theologians like Teilhard de Chardin and other priests together with various laymen. This reconstruction effort culminated with Pope John XXIII and the holding of the Concilium Vaticanum II. (39) Originating in Europe, this process also reached Latin America. Here, the Church has, dramatically, seen two facts: on the one side, the dominant misery, injustice and social inequality which deny all the evangél principles, and on the other side, following the desertion of the elite, it perceived that a new and still more serious desertion was menacing it - the desertion of the popular masses that in Latin America were more and more being attracted by other religions. (39)

At the end of the 1960's, the Catholic Church all over the world and particularly in Latin America, was more than a church in crisis, it was a church in revolution. (40) The present day Brazilian bishops like Dom Helier Camara, Dom Paulo Evaristo Arns, Dom Antonio Fragoso, Dom José Maria Pires, Dom Pedro Casaldáliga are the object of conflict with the political powers. They expose themselves as persons and as bishops, when in favour of social justice they assume the defence of Indians, negroes, poor people and peasants. In short, the oppressed.

Inspired by the Concilium Vaticanum II the Pontifical Commission for Justice and Peace was established. This Commission is attentive to the needy segments of the population through
the national and archdiocesan branches of the church. These Commissions have not been limited in stating what are the inalienable human rights, but have worked in concrete and programmatic aspects. They promote and stimulate the organisation of popular sectors which work for improvements in the moral attitude of the justice instruments. Through the work of awakening the conscious and organisation of the population, the Ecclesiastical Base Communities (CEB’s) start with the meeting of small groups, followed by community meetings, so reaching both small and large assemblies. This awareness process allows the population to participate more actively and has helped to channel the aspirations of the people. The Commissions have revealed that they are not concerned with becoming involved in sectarian politics in the course of their work.

There is not yet registered data on the total number of Communities, but only in São Paulo state, in a seven year period, Dom Paulo Evaristo Arns has approved the acquisition of 296 sites for community centres. At these centres there are meetings, literacy classes, mother's clubs and other social activities. Concerning aspects relating to this programme of the Catholic Church renovation, there is an unquestionable potential, not only for the extension services of the public library in Brazil, but also extension activities of library courses.

What is the potential for libraries in this communal movement? Prior to the provision of a response by the public library sector, a real demand that originated from one such community was put to the Extension Centre of the Library School of the Federal University of Minas Gerais. When the Coordinator of this centre had the first meeting with the interested community (a small village called Lindoia) surprise was expressed at the level of participation in the decisions concerning the establishment of its library - its location, volunteers for making the shelves, and so on. It became evident that a paternalistic action was not expected by the community, but rather a desire for effective participation in order to make the library become a reality.
A library emerging from the very community, as a result of the communal will and effort could have more strength and result more firmly in its survival and continuity.

The communal movement is not restricted to the Church, but there are a few examples of the involvement by governmental organs in community projects. The common feature is community participation by the channelling of its needs and by its working to achieve solutions to these needs.

An unquestionable role which could be played by librarians would be to help communities to identify and meet their own information needs for coping with day-to-day problems. The information needed for survival in modern society has been variously called "information for living", "everyday information", and "community information". [42]

Here a convergence and integration of the university functions - teaching, research and extension - can be reached by developing programmes of investigations which determine the information needs of the community concerned and the problems experienced by individuals in obtaining information relevant to their requirements, by extending the expertise of lecturers and students for the organisation of services to meet these requirements, and by compiling and maintaining files of agencies and people for referral services. Information for such files would include a number of governmental agencies and extension centres of other departments of the university (for example, Law Schools generally maintain free advocacy services to disadvantaged groups). Additionally negotiations could take place with the State Public Library for maintaining a liaison librarian on its staff.

The establishment and continuous supervision of a community information service which is library-based, and the training of members of the community for its operation, can become a legitimate extension activity of library courses.

How could Brazilian librarians be educated for actuating in the community movement? The teaching would have to become involved with communal processes and methods: this means the employment of methods of social action in association with the real participation of the community members. Such
methods could be gained from the inclusion of, for example, disciplines such as "community relations" and "adult education" in the library full curricula, as optional disciplines. It would require adopting a different vision of the user. Not the vision of a passive receptor of services donated by the state, the enterprise, or other organisation, but as part of a team in the planning and implementation of the library. It is the vision of the society not as an agglomeration of individuals, but as an organisation composed of actual communities, ranging from the family group or work group to the school, working groups and other social groups.

However, whilst library education can include disciplines in their curricula related to the community movement, it is not yet possible to predict whether or not community libraries will emerge and develop, or even which features will be present in them. (43)
REFERENCES AND NOTES

(1) With regard to educational matters, the university is subject
to the decisions of the CPE, which is part of the Ministry of
Education (MEC). It is difficult to change a minimum curriculum
that is once established, and with regard to the full curriculum,
the introduction of new disciplines faces both financial
constraints and frequent prohibitions of contacting new lecturers
for the teaching of new disciplines.

The federal universities are financially dependent upon the
budget allocation by the Ministry of Education. The Brazilian
constitution of 1946 stipulated that 12% of the national budget
be directed to education. In reality, it is very well known
that the country is spending less than 5% of its budgetary
resources on education.

Administratively the university is ruled by the university reform
law. Decisions such as decrees relating to selection and
employment of staff which were previously taken by the administrative
sectors of the universities are now the responsibility of the
Department of Administration of Higher Level Personnel (DASP).
This applies, for example, in the employment of a driver by a
university such as the Federal University of Minas Gerais which
has 12,000 students, over 2,600 lecturers and 7,000 administrative
personnel, besides construction workers. The university must
ask for special permission from DASP.

The lack of autonomy by the Brazilian universities has been
the object of sharp criticisms, not only by those involved in
their administration, but also in academic studies.

(2) SUCOPIRA, Newton. O ciclo básico: sua natureza e problemas de
sua organização. In: O CICLO BÁSICO. Rio de Janeiro,
Conselho de Reitores, 1971.

(3) RELATÓRIO anual do Ciclo básico de Ciências Sociais. Belo
Horizonte, Universidade Federal de Minas Gerais, 1977.

(4) "Itinerant workers" is an attempt at translating a very complex
sociological expression in the Brazilian Portuguese language.
"Boia" means sick, and "fria" means cool. This expression
indicates underpaid workers from the rural areas who work
far from home and have their lunch packed to the work
location. It is also being used for workers in large
cities, who perform odd jobs in industries, construction, etc.
(5) "Segregation victims" is an approximate translation of the expression "marginality" which indicates people who live at the margin of society, i.e. people who are ignored by society. Segregation indicates not only underpaid and/or unemployed people but also criminals, black people, homosexuals, etc.

(6) See section 4.4 - Criticisms of the minimum library curriculum of 1962.


(9) See section 2.2.3 - The attempts made towards a Brazilian university.


(12) It was sought to interview most of the writers of the publications in collaboration.


This curriculum proposal has passed through the hands of several commissions. The latest commission specified the disciplines and some alterations were introduced, however, without changing the initial structure of the curriculum. The specification of disciplines has led to the questioning of some library courses such as: "Who will teach the social fundamentals of information systems?" Such doubts have led the author of the present piece of work to refer to the initial proposal, as was reported in 1977, by Ferreira et alii.

(15) SHEFFIELD UNIVERSITY. Centre for research on user studies. (Prospectus).


The Bradford Law of scattering is discussed in courses of documentation. As a result of lack of integration in library courses in Brazil, the implications and applications of this law are, generally, not explored in courses of library management.

The 80/20 rule (80% of circulation is satisfied by 20% of the holdings) which is being investigated with regard to several types of libraries, including governmental and public libraries in the UK and US, has not as yet received attention in Brazil, except in postgraduate courses. However, the 80/20 rule has implications for collection discarding, core-collection development, optimal size of a library holding, and extent of interlibrary loans.

One example of the use of this rule was in a comparative study of the characteristics of library loans of journals, issues and monograph circulation relative to the total number of journal titles and monographs held in government and public libraries in the US. It was found that for both types of material in these establishments 80% of circulation was satisfied by 20% of the holdings - a characteristic which is similarly displayed in business and industry where inventory transactions are such that 80% are taken from 20% of the items in stock.


Another study investigated the use made of last dates of circulation of samples taken from books in stock and those in circulation in three different (US) academic libraries, in order to give frequency distributions of book use over a period of several months. Circulation satisfaction - collection size relationships were derived which were very similar for all the libraries. It was found that 20% of holdings satisfied 60-70% of circulation requests, and 50% holdings satisfied about 90% of such requests. Book stock sample sizes were of the order of 1% of the libraries' holdings, with circulation sample being of several thousand over varying periods of time.


Law of diminishing returns. For a given level of user demand, there will be an optimum level of staff, materials (books, journals, etc.) equipment operating within the various procedures comprising the system, which will sustain a certain level in efficiency in, say, the processing, availability of library material and the operation of the information services. Beyond this level, the increase necessary in the elements of the system to improve further the services offered by and procedures operating within the system may well diminish cost-effectiveness (and cost benefit) of the system. An example of this is the high cost of additional staff and materials to deal with requests for items/information which only infrequently occur (i.e., the tail end of the Bradford distribution, for instance!)
Alternatively, in terms of book acquisition and processing procedures, extra books to be processed by the same staff will reduce processing speed. Increasing the staff for the same number of books processed may well mean that staff are used less effectively and the processing costs per item will increase (i.e. a decrease of cost-effectiveness).


(22) One useful reference on cost effectiveness is, for example:

MASON, D. Programmed budgeting and cost effectiveness. ASLIB proceedings, 25 (3) : 100-10, 1973

The techniques incorporated in programmed budgeting are used as a method for estimating the cost-effectiveness of activities within an industrial library and information department. Programmed budgeting procedures analyse expenditure on each activity in relation to its purpose in achieving the overall objectives of the department, and relate it to the results achieved. The method of analysis and costing of each procedure adopted in achieving the overall aim of each activity is described. These include operational (e.g. book, journal and pamphlet acquisition, indexing, cataloguing, stock control and maintenance activities, and service activities (current awareness, SDI, information retrieval, loans and reference work). Cost effectiveness estimates are obtained by use of data on the use of the various services available and the use of the products of the operational activities (catalogues, indexes). By considering the costs incurred by the user to locate information or library material required without such activities, Mason estimates that for an information service which deals with 42CC enquiries per annum, incorporating 200 lengthy searches, the savings made are twice as much as the cost of the service (i.e. for every £200 spent, £200 is saved in staff time).

(23) GARCIA, Maria Lúcia Andrade. Automação/Teleprocessamento : aplicação em IOT. In:- Relatório preparado para a Divisão de Estudos e Projetos do IBICT. Belo Horizonte, 1979.


Such statement may at first glance be considered to be exaggerated and unlikely to be a general characteristic of all parts of the university. However, integrated activities of research and extension apply to all areas of the university in Brazil since, in every case, their activities face the enormous serious social problems of the country. As a consequence, the university may draw on the several areas of expertise within it to arrive at solutions to projects that have been directed towards solving problems of the social environment. Obviously that statement does not apply to developed countries. In these countries the average level of education and health of the population is high and the scientific and technological researches, both industrial and agricultural, have reached a high level of sophistication. The private enterprises maintain their own research laboratories, therefore the university can limit their activities to the formation of human resources and develop, mainly, basic research, which are indispensable for the technological development.

Some of the best illustrations of the application of a university's research/extension activities directed towards the community are to be found with the projects of the University of Campinas. One such project relating to harvest yield production involved the collaboration of mathematicians, computer specialists and agronomists. It was directed to the needs of small and medium agricultural producers who do not have ways of storing their agricultural production. Further explanation of this project was provided in the section of science and technology. On the same lines the project for colonization of the Amazon demanded the expertise of geologists, sociologists, agronomy and forestry specialists. Within the Federal University of Minas Gerais a few projects may also provide illustrations concerning the point under discussion here.

The Departments of Physics, Chemistry, and Architecture have developed solutions to problems relating to the protection of colonial sculptures made from "pedra sahão" (a soft and sensitive material) by using special techniques to make them rigid without altering their original characteristics. In fact, the illustrations may range from the art student who paints "migrants" (tragic exodus of agricultural workers) to the social scientists who study underdevelopment and external dependency.

According to Zeferino Vaz, rector of the University of Campinas, in its 12 years of existence, this university has intensively developed applied research for direct services to the community, involving both lecturers and students. At the same time it has developed basic research resulting in a centennial of original works published in the most exacting international journals. Most of this last kind of production resulted from the direct observation of the environmental conditions.

Reference has to be made to the valuable consultancy visit of Professor T. D. Wilson of Sheffield University to the Library School of the Federal University of Minas Gerais (UNIO). His report on research proposals for that school comprises not only most of the points discussed here but supplements them with practical and valuable observations and suggestions. Although not yet acted upon, his report deserves the greatest attention and reflection of those concerned.


LIMA, Estelvina. Library science research and planning centre; justification of foundation. 4p. (Unpublished paper).


FINEP (Financier of projects and studies) is the secretariat of the National Fund for the Development of Science and Technology (FNDCT). Further explanations concerning FINEP are provided in the section on Science and Technology.


See for example:


COMPENDIO do Vaticano II. Constituições, decretos e declarações. Petrópolis, Vozes, s.d.

Statistical data still recognises the great majority of people in Brazil as Roman Catholics, but other religious bodies (Protestant, Spiritualist and those of African origin) have experienced an increasing involvement with today's Brazilian population. This increase has occurred in Latin America at large where Protestantism, for example, had a growth multiplied 30 times from 1916 to 1961.


(42) In most developed countries there are several models of community information services. Three types can be identified and illustrated: (i) the Detroit TIP (The Information Place) service which is library based and operated only by librarians; (ii) at the Mainly-Warringah Citizen's Advice Bureau (CAD) in Sydney, Australia, which is non-library based but where librarians work in conjunction with other professionals; (iii) In the Crouch Neighbourhood Center, London, Ontario (Canada) where cooperative activities involving librarians, social workers, and volunteers are being developed. One of the objectives of this centre is "To encourage a sense of community".


See also:


MARMER, B.S. et alii. Information needs of urban residents : Final report from Regional Planning Council of Baltimore and

(43) There are already a number of libraries, created and maintained by the Secretariat of Education in the State of Minas Gerais with the name of community libraries. This denomination owes its existence to the public character of primary school libraries, which are organized to serve not only the students, but also the community where the school is located.
5. GENERAL CONCLUSIONS AND TOWARDS A DEFINITION OF OBJECTIVES
FOR LIBRARY UNDERGRADUATE EDUCATION IN BRAZIL

The education of professionals to enable them to perform in a changing field such as librarianship presupposes that this education is organised, taking into account not only the intrinsic dynamics of the library/information unit, but also the extrinsic changes which bear upon it.

Owing to such rapid changes which occur within both the library environment and the larger social context, the grasp of principles, and the methods of applying them to solve unfamiliar problems rather than the detailed study of practical issues, becomes of prime importance.

The economic, political, social and institutional instability of the peripheral countries (in the sense used by CEPAL) make any determination of the professional demand for librarians in Brazil very difficult. Therefore, there is a need to organise a model for library education based on essential library competence, and which is at the same time, organic and flexible. The librarian so educated would be able to undertake self reorientation when faced with problems originating from such instability, and would be capable of performing in any kind of library/information service.

In more concrete terms, social awareness and professional competence are pre-conditions for librarians to perform in Brazilian society, and to move towards the solution of problems in their professional area.

The consideration of problems that obstruct the driving forces for development in the 'peripheral countries' could be the initial reference point for the choice of methodological direction, and for the selection of objectives and contents of courses.

The education for understanding and adapting to changing international situations, within a national perspective would involve the settlement of a boundary mark to help in understanding the situation of the country within the world. This boundary mark involves an awareness, with an understanding of an historical perspective of the country's economic, social and political problems.
A curriculum cannot be seen as solely an organised set of contents, activities and experiences to which the students are exposed in school. A curriculum reflects much more than the formal intention of planning and structuring the school activities. In reality, it represents overall a policy for the formation of beings - an educational philosophy, an ideology, an option for certain patterns of the individual and for a certain vision of the world. (1)

Every educational curriculum - whether it is for the general education of the individual or for a specialised field such as library education - is a socio-political document and its effects are socio-political.

At the university level, education has the characteristic of providing a professional qualification for the exercise of certain occupations. However, more than giving the students qualifications for acting as professionals in the labour market, the university should educate them to exert influence upon the reality in which they are going to actuate, with a perspective to change, assuming a critical view of such reality. (2)

However, whether on the one side the university has the function of educating those professionals who will take part in societal changes, on the other it cannot ignore the mass of individuals who do not pretend to, or will never be, called upon to assume such a role.

Owing to differences in the objectives of undergraduate and postgraduate education, courses aimed at the latter level cannot be used as remedial measures for rectifying faults in undergraduate courses. The aim of the undergraduate course is the production of trained professional personnel (including teachers for secondary education). This contrasts with the purpose of the postgraduate course which embraces the formation of personnel educated to a higher level, the improvement of performance of lecturers and the formation of specialist researchers.

In the case of library and information postgraduate courses, an additional objective is the creation of professional personnel educated to a high level both for the planning and management of library and information services and for positions as information specialists. For these latter positions, a
background knowledge in another field of knowledge is required.

In order to contribute to a library education that is more related to Brazilian reality it is indispensable that every effort is made for improving the level of lecturers by means of masters and doctoral programmes of a good level. Such effort includes an orientation of masters and doctoral theses towards the most relevant library problems from the point of view of Brazilian society and which are most strategic for its development.

In those professions which are, more frequently, linked to institutions, such as librarianship, their professionals are seen as employees submitted to the requirements of the organisations concerned. Library education has consequently reinforced in its students the importance of bureaucratic authority rather than the interdependent contribution of the individual professional. Thus, the role that the librarian ascribes to himself is more related to the execution of tasks, and less to the planning and development of ideas and strategies for action. However, in the specific case of Brazilian library education the dependent, discontinuous and unequal development of the country imposes a greater demand for more critical and creative professionals, who are characterised as agents of change rather than maintainers of the status quo.

To social awareness would have to be added not only perception of, but commitment to, the cultural characteristics of the environment, in order to avoid a professional contribution to the distortion of such characteristics. This posture presupposes (i) a knowledge of the cultural characteristics of the community; (ii) the ability to use such characteristics as instruments for reflection and action integrated into their professional work, and vice versa.

The education of professionals with consciousness and commitment to the problems of their environment would have to favour the integration of teaching, research and extension within the institution. Such integrated activities can result in learning resources for both students and lecturers.

Brazilian librarians discuss the importance of libraries at large, and also write in the specialist journals on this topic. Most of the ideas originating from UNESCO and other international influences are mainly circulated only among the small circle of
librarians. There are indications that librarians have not
elevated their communication capabilities and have not attempted
to reach other audiences, including not only those of the governmental
sphere but also society at large.

Some articles published in the specialist literature of
librarianship in Brazil indicate that within countries such as
Brazil, in which the economy is in the process of becoming more
industrialised, an increasing number of librarians and information
specialists are needed to provide the specialist information
required by the industrial organisation.

Estimations for the required number of such trained
personnel are made in the same manner, and to the same extent
as the values determined for countries which had undergone
development in previous periods, and which at the present time,
occupy the centre of the international economic system. The
discussion and evidence presented in this piece of work in respect
of the process of Brazilian industrialisation indicate that such
estimations are based on false suppositions.

The question of the selection of library students is
presently limited by the Brazilian system of selecting candidates
for undergraduate courses. This selection is based on written
examinations of those disciplines of the secondary school curriculum
(history, geography, mathematics, physics, chemistry, biology,
Portuguese, English or French languages).

The ideal personal characteristics of the librarian is
a factor which is over emphasised in the specialist foreign
literature, and also to a lesser extent in the national literature.
An initial consideration of the list of required qualities for the
reference librarian, given by Margaret Hutchins (5), preceding other
related literature may lead to a set of ideal characteristics of
the librarian akin to the conditions required by Popes for the
creation of saints.

A more serious consideration of the matter tends to
reach a consensus towards some characteristics which help those
courses (in Brazil, presently, postgraduate courses) that can
select their candidates not only on the basis of a university
entrance examination (vestibular).
The cultural attitude towards minority tends to lose sight of the potential of an environment which, although underdeveloped, is culturally rich and diversified; which is characterised by social injustices, and because of this very fact, poses challenges for those who are the intellectual elite of the country.

Rumanelli, [14] by discussing the global phenomenon of backwardness, which pervades all aspects of social life, focuses attention on the problem of education and identifies the possible behaviour of those involved, as being:

a) a passive acceptance of backwardness;

b) a critical opposition to backwardness based on a critical view of the reality resulting in a lucid opposition to imported models as well as to the very situation of dependence;

c) non-critical opposition to backwardness, as a result of a level of perception which does not appear to notice the gap between the imported models and the local situation. In this last case, the resultant social behaviour is one which seeks to conform the local situation to the imported models.

The term "dependence" in the sense it is used in the present work has to be better explained. It would be fallacious to refer to independence in any branch of human activity, principally in the information sector. However, there is dependence and interdependence. This last situation is not the case of a large number of countries, those so-called "developing countries".

The process of dependence of certain countries (the peripheral) to other countries (the central) is better explained in economic terms. One may criticize the process of dependence that is mainly seen under the economic perspective, since the dependence process assumes various other aspects, equally very important ones.

However, the emphasis placed on the economic dimension is justified to the extent that other aspects are rooted in economics. One may say that economic development is a process which affects not only purely economic relations but the entire social, political and cultural fabric of society. The movement which emerges in Latin America seeks to escape from dependence to interdependence, when those countries could have voiced and could negotiate without having ever to cede to the interests of the central countries.
In the specific case of library/information field it is worth quoting Fritsche when he says:

"The promising prospects displayed by international programmes may be doomed to failure if their sponsoring institutions do not take into account the specific needs and peculiarities of the developing countries. These countries should have a more effective participation in the drawing up of international standards and they must strive in order to avoid that the implementation of international cooperation and exchange does not become a new means of perpetuating the condition of dependence". (5)

In this line of reasoning a few generalisations on library education in Brazil can be essayed in the form of general objectives. Such general objectives are to be understood as commitments and not as determining the future of library education in Brazil.

The framework developed in this piece of work for the analysis of social and economic factors as they relate to library education is to be interpreted as the search for a guiding philosophy in the choice of goals for library education in the country.

In a more concrete way such objectives could be formulated as follows:

To lead the students towards a critical rethinking of whether the traditional model of public library (created and maintained by the State) is the only viable model for the public library in countries such as Brazil. Brazilian social "development" presents serious lacunae such as the malnutrition of a significant section of the population, precarious living conditions as seen in the urban and rural slums, besides other grave social problems. In the scale of social priorities, education and libraries do not rank in the first position. The examination of problems affecting a country of marked social contrasts may lead to the consideration of alternative solutions for the access of the population at large to books and information.

Public library professionals should not be confined to the restricted environment of their libraries but should turn towards associations and federations, such as the Federation of Agricultural Workers, trades unions, parish and ecclesiastical communities, in order to detect possibilities for joint action in favour of various sections of Brazilian society.
Whether the public library should be shaped by society and not by the librarian, and considering that the main demand made on public libraries at present in Brazil comes from secondary students, it is up to these libraries to be so organised as to render better services to the students, instead of fighting against this trend for the sake of a foreign model of the public library which could not yet be fully realised in the Brazilian context.

Studies have indicated that the book in Brazilian society is seen as a work tool rather than as a leisure artifact. This does not mean, however, that leisure is completely absent from the activity of reading. Library statistics provide evidence of the high use of fiction by their readers. The study of Besi on the reading of 52 female workers disclosed that, in spite of the hard conditions of workers in Brazil, 81% read magazines, 62% read books, and 67% read newspapers. (6)

The examination of a few studies on the use of the book by Brazilian society, in spite of their fragmented and unsystematic nature, leads to the following reflection. Public library services located in the centre of the town, with only a few library branches and without systematic book mobile services are not catering for a number of social segments of the population. Whatever the integration level of the population in the urban setting (even when it only reaches the level of physical survival) library services have a role to play within them. It is necessary to remember the statement of one female worker in Besi's study: "Then my brother is unemployed he buys a newspaper to look for a job. Then I read it". (7) This is an elemental illustration of the need for public libraries to develop information community services.

At the level of social survival (education and leisure) the studies have shown that the trends are for the public libraries to play the role of school libraries.

In the specialist literature, and during the library course relentless emphasis is given to the importance of "end services". However, the students are led during their course to practice only, or mainly, the "means services". The objective practice of end services is absent or assumes the tedious form of reference exercises, where hypothetical questions are formulated by an abstract user. In reality, many aspects of what is the
essence of the librarians' role are not in practice covered by the curriculum. In service training does not solve the problem since Brazilian libraries generally offer poor reference services.

- It is under these circumstances that the functions of research and extension may play the important role of offering the students an actual opportunity of facing some aspects of their future professional life.

- To develop the managerial competence of students by way of educating them to identify problems, to collect and analyze pertinent information, to make technical estimates, and to take decisions conducive to feasible solutions.

- To develop the students' capacity for both (oral and written) communication, especially with administrators of government departments and of universities or those who take decisions affecting library information/services, in order to expose such people to the principles and needs of good library/information services, and for the preparation of reports and projects. The use of objective language, the presentation and analysis of data are to be practised during the course.

- To give the students the opportunity to interact with specialists in library/information management, such as people from IBICT, BIREME, SIBACR/ SIBRAP., especially those with experience in research and implementation of information systems, and those who work at the level of decision-making. This interaction may be provided by lecturers combined with well programmed visits. The production of a series of tape-slide presentations would be a resource to solve the problems of geographical distances of the country. The IBICT teaching and research division has now a valuable experience in the production of A-V materials which could be employed for this purpose. A concomitant opportunity to enable students to come into contact with people who work at the operational level with regard to the central units (libraries and other agencies that comprise the infrastructure of information systems). This will allow the students to identify the highlights and the weak points resulting from their work and experience.

The teaching of library planning should provide student access to an organisation (preferably those organisations interested
in the implementation of library/information services or in the reorganization of this sector to collect data as part of a library project, under orientation and supervision of a lecturer. Such an activity is not uncommon to some library courses, as exemplified by the Library School of São Carlos (State of São Paulo) and Library School of the Federal University of Minas Gerais.

- To compare and contrast foreign experiences in library/information services, in the expectation that they may serve as examples, and not as a model to be followed as orthodoxy without reflection on the national particularities and possibilities. Care has to be taken, since it is not a common practice for library/information literature to report on projects or undertakings that have failed.

- To lead the students to examine critically and systematically the legislation and governmental acts that interfere with the operation of library/information services in the country. The verb to interfere is here deliberately used, since a supporting legislation for library/information is non-existent in Brazil (an exception is made in the case of the National Library). There is, however, a widespread legislation that intervenes negatively in the operation of library/information services and which raises difficulties in relation to the flow of information in the country.

- To examine critically national goals and the rank of priorities established in governmental plans faced with the situation that, in theory, library/information can provide for the achievement of these goals. To discuss the shortcomings of library/information services in the country with a view to their improvement, in order that they can play an effective role in the national plans. This presupposes a knowledge of the actual situation of library information services in the country.

- To consider both the library institutions and their processes of operation in the wider social context, in terms of their relationship to other institutions and processes, and to society as a whole.

- To analyse questions about the factors that govern the production, dissemination, use and consequences of information.

- To make a comparative study of the function of all those involved
in the process of recorded information or communication: producers (people and institutions), publishers, libraries and other information agencies, and users.

The knowledge of other languages, especially English, is a need common to all university courses. In the case of librarianship this need is even more acute, due to the fact that a very high percentage of the specialist literature is written in this language. The possibility of the librarian during his professional practice having to deal with modern devices, especially data bases, where this language is dominant, suggests that there is a need for the English language to be included in library curriculum. The apprenticeship served on studies of English language in the secondary school has been shown to be inadequate for university education. Evidence of this is the proliferation of "apostilas". The inclusion of English in the library curriculum should not be a motive for restricting the production and publication of a specialist literature in the Portuguese language.

On one side we have the disadvantage of a minimum compulsory curriculum, on the other this new proposal for a minimum library curriculum which should be seen as an opportunity for enlarging the discussion of library education at the national level, embracing all those who need — and wish — to take part in the discussion. Such discussion should not only involve the professionals of library education but also those concerned with the running of library/information services, and principally those who are the most interested — the students.
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APPENDIX I

QUESTIONNAIRE

Your answers will be of great value for curricular studies, therefore we ask for your goodwill in answering all the questions objectively and with veracity. The questionnaire is to be answered individually, without communication with your class-mates. If you have any doubt concerning the questions, please contact the surveyor.

1. You are attending the ____________________ term.

2. When you finished your basic cycle of social sciences and entered the professional cycle did you have any problems concerning teaching? (style of teaching, course contents)

   a) [ ] Yes

   [ ] No

   b) Please explain your answer
3. How do you see the connection between the disciplines of the basic and the professional cycles?

a) □ There is no connection
    □ There is little connection
    □ There is some connection
    □ There is much connection

b) Please explain your answer

4. Are studies of economics, the logic of scientific thought, politics, and sociology continued in any discipline of the professional cycle?

□ Yes
□ No
5. Please list the disciplines of the professional cycle where the studies are being continued.

<table>
<thead>
<tr>
<th>Basic cycle</th>
<th>Professional cycle</th>
</tr>
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<tbody>
<tr>
<td>Economics</td>
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<td></td>
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<tr>
<td>The logic of scientific thought</td>
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<tr>
<td>Politics</td>
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<td>Sociology</td>
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</tbody>
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☐ No discipline

6. From your point of view which disciplines of the Professional cycle benefited from the knowledge you have acquired in the Basic Cycle.

| Economics         |                     |
|                  |                     |
| The logic of scientific thought |   |
|                  |                     |
| Politics         |                     |
|                  |                     |
| Sociology        |                     |
|                  |                     |

☐ No discipline
APPENDIX II

The following disciplines were being offered in the second semester of 1979 at the Library School of the Federal University of Minas Gerais:

2nd term
- Indexing
- Cataloguing
- General theory of administration
- Scientific work (layout)

3rd term
- Organisation and administration of libraries I
- Classification and cataloguing
- History of books and libraries
- History of literature

4th term
- Organisation and administration of libraries II
- Bibliography and reference
- Statistics
- History of art
- Paleography

5th term
- Mechanization and automation of libraries
- In-service training
- Brazilian bibliography
- Study of Brazilian problems A
- Archivistic (optional)
- Treatment of special materials (optional)

6th term
- Planning of libraries
- Documentation B
- Study of Brazilian problems B
- Specialist bibliography - Technology (optional)
- Specialist bibliography - Humanities (optional)
APPENDIX III

INTERVIEW  (general outline)

A. 1. What is your opinion of the minimum library curriculum which is in force?

2. What problems are presented by this minimum curriculum?

3. What solutions do you propose?

4. How do you see the relationships between teaching (curriculum) and the Brazilian realities?

5. Please indicate the main obstacles to a greater connection between teaching and the life of the country.

B. 1. Is there integration between the basic cycle and the professional cycle? If so, how does it occur?

2. What problems have been shown that restrict a greater or better integration between these two cycles?

3. Do you have a proposal which allows such integration to be accomplished?

C. 1. What is your opinion of the new proposal for a minimum library curriculum? (The proposal published in Rev. Esc. Biblioteconom. UFMG in 1977)
<table>
<thead>
<tr>
<th>Name</th>
<th>Place of work</th>
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</thead>
<tbody>
<tr>
<td>1. Anna da Soledade Vieira</td>
<td>Universidade Federal da Paraíba</td>
</tr>
<tr>
<td>2. Antonio Agenor Briquet de Lemos</td>
<td>Universidade de Brasília</td>
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<tr>
<td>3. Edson Nery da Fonseca</td>
<td>Universidade de Brasília</td>
</tr>
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<td>4. Stelvina Lima</td>
<td>Universidade Federal de Minas Gerais</td>
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<td>5. Maria Augusta da Nóbrega Cesarino</td>
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<td>6. Maria Luiza A.G. Ferreira</td>
<td>Universidade Federal de Minas Gerais</td>
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<td>7. Nice Figueiredo</td>
<td>Universidade de Brasília</td>
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<td>8. Paulo da Terra Caldeira</td>
<td>Universidade Federal de Minas Gerais</td>
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<td>9. Relinda Köeler</td>
<td>Universidade Federal do Faroé</td>
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<tr>
<td>10. Marysia Malheiros Piuza</td>
<td>Universidade Federal de Minas Gerais</td>
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