



**PROGRAM OF BIBLIOGRAPHIC COMMUTATION
COMUT**

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INTRODUCTION

The teaching and researching are only possible with a good system of libraries or services of information that allow a fast and efficient access to technic and scientific information. However, rare are the libraries that can meet the requirements of the users using only its own collection.

In countries like Brazil the availability of documents is low in the majority of libraries, due to financial restrictions that damage the acquisition of books and other documents, mainly technic and scientific periodicals that have a high maintenance cost. Nevertheless although the few individual quality of many collections, the use in national level, allows a completion able to supply the most necessities of research and teaching in the country. It is imperative that the libraries and services of information interact each other using in a cooperative manner its collections. This completion is done in Brazil basically through the use of The Program of Bibliographic Commutation, which was created in 1980 by the Ministry of Education and Ministry of Science and Technology.

The COMUT allows the libraries that participate of the Program, obtain in other libraries, copies of documents that do not exist in its own collection. Adopting standardized operations in the request and the attendance of copies, as well as, actions charge for the services done.

The present document shows up in general, the context where COMUT is inserted in national level as well as its main administrative and operational features.

AVAILABILITY AND ACCESSIBILITY

AVAILABILITY

It is the capacity of the library or unit of information in view of users, using only physical documents in **its collection**.

The availability, in a significant number of libraries in many countries, reach exponents that are under the standards considered appropriate. The exponents are a consequence of the imposed libraries that not always count on current acquisition of titles, mainly of periodical publications, that cost of maintenance is very high, resulting in a non continuous or not up to dated collections.

To the financial restriction can be added the phenomenon of the “information boom” that affects naturally the capacity of libraries to absorb the information their produce, due to lack of planning to selection of rational acquisition.

The self-sufficiency becomes even more difficult of being reached due to theses factors, and practically none library can satisfy with its own collection the request of the users (Availability).

ACCESSIBILITY

The weak availability creates the need to count on mechanisms to guarantee a good Accessibility, or there is, the capacity of a library or unit of information focuses the users using the existent documents only in the collection of other the libraries.

In spite of few quality of many collections considered individually, using its collection together, allow as a complementarity (accessibility) able to guarantee the research a lot of information demanded by him.

AVAILABILITY, ACCESSIBILITY AND INTERNET

The Internet allows access to several systems of information, which makes the concepts of Availability and Accessibility are a little bit confused. Many documents that are not found physically in the collection of a library can be available in full text through direct and instantaneous access, via Internet, accessing collection of other libraries, periodical portals, publishing companies, etc.

As if the document is physically (availability) in the library, although accessible only virtually can be read and copied any time.

But there are many documents not filed in the libraries or nor available on the Internet. In this case it is necessary to access the services, such as Interlibrary Loan or Bibliographic Commutation.

SERVICES OF ACCESSIBILITY

INTERLIBRARY LOAN

It is a service of accessibility that allows a library to obtain the documents that do not exist in a certain library, through out a loan in other libraries.

It is estimated the existence of collections with double titles published to do not affect the loan and the local use of the collection. There are procedures and guarantees of returning the documents that were lent, means of sending the documents with the guarantee of a good system of Post Office and other kinds of mechanisms to send the documents that do not exist in its own collection.

BIBLIOGRAPHIC COMMUTATION

It is a service of Accessibility that allows a library or an user to obtain in other libraries or services of information, **copies of documents** not existing in its collection.

The efficiency of a service of Bibliographic Commutation is directly related to its formal and structural organization, with specific mechanisms and rules to guarantee the supplying and receiving the copies. It is necessary to guarantee also an adequate process of payment for services offered.

SERVICES OF ACCESSIBILITY IN BRAZIL

As the example of many other countries, are rare the Brazilian libraries that are able to fulfill the requirements of the users only with its own collection and also reaching an adequate availability. In countries like Brazil, whose economic restrictions reach all the sectors of the society, it is imperative that the libraries change information and documents using its collections cooperatively.

Cooperative works occur in Brazil since the 40th decade when the University of São Paulo (USP), one of the biggest Brazilian universities, started similar work to Interlibrary Loan and Bibliographic Commutation.

Many other equal cooperative services were implemented in the country working, however in a regionalized manner and without the lack of normative and operational mechanisms defined. The forms of payment and receiving for the copies of documents were of many ways: since money sent through envelopes, post office request, compensation for copies, and so on, as well as, bank check, whose charge, many times, was more expensive than its value

Besides of these factors, due to lack of adequate infrastructure and legal instruments, there was not the guarantee that the request of copies could be provided shortly, and they were not trustworthy and also the quality of the copies, sometimes did not reach the adequate standards.

These limitations in internal level compelled, many times the Brazilian libraries to appeal the foreign services, in its majority sufficiently efficient, but with high prices which were not compatible with the financial standards of the Brazilian researchers.

From 1968 and on, it was organized services of Interlibrary Loan and Bibliographic Commutation acting in a structured way and covering all the Brazilian territory. Theses services were limited, however, to specific areas of knowledge, mainly the medical and agriculture areas. In national level and covering to all the areas of the knowledge the country continued wanting of organized services.

To supply this deficiency and to allow an adequate accessibility was created in 1980, the Program of Bibliographic Commutation – COMUT.

Other services of shared document appeared later, and the country counts on today, beyond COMUT, with the Portal of Electronic Periodicals of the Ministry of Education, that allows the access about 3.500 titles on line in full text. These titles are accessible to researchers, professors and students from the main public universities of the country.

The Ministry of Science and Technology through the Brazilian Institute for Information in Science and Technology (IBICT) allows access around 190.000 Brazilian theses and dissertations, stored in hard copy or electronic way, available through the Brazilian Digital Library of Theses and Dissertations called BDTD, virtual library accessible through the site of IBICT.

Many other services that will allow a bigger documentary accessibility in the whole country are being discussed and planned. Some of them related to the shared use of books, mainly those used by students from the university on graduation courses.

PROGRAM OF BIBLIOGRAPHIC COMMUTATION – COMUT

It was created in 1980 by the Ministry of Education and Ministry of Science and Technology. It is a multidisciplinary Program that allows the attainment of copies of technic and scientific document existing in 222 libraries (called Base Libraries) of public and private universities and institutions of research, distributed all over Brazil. The COMUT is acting according to the Law of Copyrights and allows nowadays to its users, copies of many kinds of documents included:

- around 40.000 titles of several periodicals in hard copy
- around 190.000 thesis and dissertations in hard copy
- technic reports
- proceedings

The Program intends in the future allow the access to full texts of periodicals and other documents through the Internet, copies of parts of technic and didactic books, besides documents that belong to libraries of other countries.

ORGANIZATIONAL STRUCTURE (FIG 1)

The COMUT is structured in form of a network of libraries and users that compounds of:

TECHNIC COUNCIL

It is formed of 9 members. The Technic Council has the tasks of supervising in a higher stage hierarchy the activities of the Program, approve rules and general procedures, and also the Annual Plan of Works proposed by the Operational Management of COMUT.

OPERATIONAL MANAGEMENT

It is an agency in charge of superintend the technic and administrative activities of COMUT coordinating all the net of libraries. It is under the responsibility of this area, the activities of planning and evaluation, operational monitoring, collecting and analysis of statistical data of the Program.

BASE LIBRARIES

They are libraries and services of information of institutions of teaching and research, with collection considered more adequate to the fulfillment of the demand of copies, in one or more areas of knowledge (Table 1) and with a minimal infrastructure compatible with the purpose of the bibliographic commutation.

The prerequisites to a library integrate the COMUT in condition of Base Library are:

- Availability of relevant collection in one or more areas of the knowledge or according to the criterion of geographic distribution
- Maintenance of regular collection
- Availability of reprography equipment and systems of communication of data in quantity and adequate quality in order to do services of commutation
- Availability of qualified personnel in order to do regularly the services which correspond to the Program
- Participation, in a systematic and regular form, in the National Catalogue of Serial Publications (CNN) of IBICT (Institute of Information for Science and Technology) and other specific catalogues.

The choice of Base Libraries is done through of analysis of above conditions and its incorporation to the Program through signature of agreements, which it compelled to answer any request done through COMUT according to prices, time and quality standards already established.

Nowadays there are 222 Base Libraries at COMUT. (FIG. 2)

SOLICITANT LIBRARIES

They are libraries or services of information of institutions (teaching institutions, research, technic assessorship, administration, services, industries and so on) that demand basic information about activities of teaching, research or management. These libraries and services of information act as interface between its users and the Base Libraries, requesting the copies.

To participate of COMUT, the Solicitant Library must register and acquire a minimal number of Electronic Coupon according to the Program Management requirements.

At the present there are 1.556 libraries (Fig. 2) that are integrate to COMUT as Solicitant Libraries. These libraries are located in 405 different cities of the country.

The libraries are divided in two groups: University Libraries and Specialized Libraries (Fig.3)

SOLICITANT USERS

They are individual users that request copies directly to the Base Library, through the Internet without using a Solicitant Library as interface.

To participate of COMUT the Solicitant User must register and acquire a minimal number of Electronic Coupon sufficient to make the request of copies.

The Solicitant User can monitor all the request of copies, including those done through a Solicitant Library, knowing in what Base Library the requests are, and if they are in attendance phase or if they had been already provided.

The estimated number of potential solicitant users is 3.800.000 people (students of universities, professors, researchers, professionals in general, etc) (Fig. 4)

PAYMENT OF THE SERVICES

The Program charges to users only the costs of production of the copies of Base Libraries (photocopy or digitization) and sending to solicitants (through post office, fax or another electronic way). The other costs of infrastructure and the collections are financed by the Ministry of Education, Ministry of Science and Technology and Base Libraries. Each group of ten pages costs today R\$ 4,40 (around US\$ 2).

One of the biggest problems of the Brazilian cooperative services before the creation of COMUT was the existence of several forms for the offered services. A library/service of information was compelled to do distinct payments, and many times in different forms, to each library/service of information to whom was requested copies of documents. And the libraries/services of information that offered services received payments of different origins and several forms. These varieties forms of payments were impracticable many times to the accomplishment of determined cooperative due to administrative bureaucracy.

To solve these problems it was created the COMUT Electronic Coupon, a virtual currency that unifies the different modes of payment and allows that the operations of payment and act of receiving are being done just one time and for just one institution that, in the case, is the Operational Management of COMUT.

The Solicitant Users and Solicitant Libraries acquire the Electronic Coupon at the Program Management which are transferred automatically to the Base Library, as form of payment in the moment of request of copies. After these Electronic Coupons can be exchanged by the Base Library for money at the Program Management. This procedure is totally electronic and virtually and allows that the payments concentrate in only one institution (the Program Management) which receives the money of all solicitants and later send to all the suppliers of copies. This simplifies and become the financial process cheaper.

The COMUT Electronic Coupon can be acquired of many ways, also through security to the bearer and credit cards .

The computer system of COMUT allows the user to know previously how much the copies will cost. And so, he can decide if he is going to do all the requests at once. The items that the user does not want can be stored in a "Order of Purchases" until he decides to request again.

The controlling of Electronic Coupon is done through a virtual statement like a banking statement. This summary allows the solicitant to know how many coupons he had bought, how much did he spend, how much does he have, as well as, the dates

and all kinds of operations done. The updating of this statement is done automatically by the COMUT Computer System all times the solicitant purchases copies.

ENROLLING OF LIBRARIES AND USERS

The registration of libraries and users is a group of administrative, operational data and of addressing of the libraries and users that participate of the Program.

When the library register in the Program it receives an acronym a code, and so it is able to acquire the Electronic Coupon to participate. The updating of the data is done by the own library.

To participate of the COMUT the user (individual) has to register and fills out the information, even when he requests directly through a Solicitant Library. Once the register is done, the user is able to request copies through a Solicitant Library, in the condition of institutional user, or he can also do this process directly on the Internet without the interface of a Solicitant Library, in the condition of Solicitant User.

Once the Data Base is centralized at the Management of COMUT and the access to enrolling is done on the Web, the Solicitant User can register from anywhere in the world throught the site of COMUT. The same way the libraries can do from anywhere in order to enroll in the Program.

The importance of enrolling is in the fact that several data of the copy request form are related to the libraries and to the users, then these data are transferred automatically from the enrolling to these forms, at the moment they are filled out. Between the transferred data are those related to the name of the Solicitant Users, name of the chosen Base Libraries to supply the copies, address to deliver the copies, as well as the procedures of how to send the material (post office or electronic way).

LOCALIZATION OF DOCUMENTS TO BE COPIED

To locate the Base Libraries which have documents requested to copy, COMUT uses collectives catalogues of documents. The main catalogue is the National Catalogue Collective of Serial Publications(CCN) from the Brazilian Institute For Information in Science and Technology that indicates the collections of technic and scientific periodical of 531 Brazilian libraries, including 222 Base Library of COMUT. The CCN allow the location about 27.000 titles of current periodicals.

Another very important catalogue is related to Brazilian Digital Library of Theses and Dissertations and beyond of digital thesis and dissertations, it relates and allows to locate about 190 thousand Brazilian theses and dissertations in paper stored in the main Brazilian libraries.

There are also specific catalogues of many libraries that can be accessed in order to find out other documents, such as books, proceedings, articles, technic reports, etc.

After the interaction works will be done between COMUT and the several catalogues, the bibliographic data needed to the identification of documents to be copied, they can be transferred directly from the catalogues to the forms of copy request through just by a simple computer command, eliminating the need of filling out of several data.

REQUEST OF COPIES

To request copies it is necessary that the Solicitant Library or the Solicitant User follow the steps:

1. Have in hands the full bibliographic reference of the document he needs
2. Find out on the National Catalogue Collective of Serial Publications (CCN) on the Digital Library of Thesis and Dissertations or other specific catalogues the libraries that have the documents to be copied
3. Fill out correctly the Copy Request Form

The request of copies is done in electronic forms, accessible through the site of COMUT, after the Solicitant Library or the Solicitant User being identified by a login and password.

The forms have fields that identify the solicitant, the document to be copied, the way of sending the copies (post office or electronically), the address to send the copies, the Base Library chosen and the quantity of Electronic Coupon used to the payment of copies.

Many data forms are filled automatically by the system, from existing information on the records of the libraries and of users. Other data are filled at the moment of the request.

Every time a request is done, the system reserves an Electronic Coupon of the solicitant, effecting a definitive transference to the Base Library only at the moment the request is effectively done. If the request is not full, the system is able to returns the Electronic Coupon to the solicitant.

The situation of each request can be tracked step by step by the solicitant who has conditions to know if the request is full or not, or even in which phases, and also in which Base Library it is.

To fill out the forms the user has an on line help, specific in each field that can be checked when necessary.

ANSWERING THE REQUESTS

When finding, through the catalogues mentioned before, the Base Libraries that have the documents needed to be copied, the Solicitant Library or the Solicitant User must indicate them in the Copy Request Form.

To avoid that the same library receives many requests while others receive just a few ones, the solicitant must indicate a maximum of seven Base Libraries. Taking into consideration that the data information that determine the capacity of accomplish the

request of each Library Base (to prevent accumulations of requests, each library base is allowed to receive a maximum number of requests each time) the COMUT system itself sends the copy request to the Base Library with a less volume of requests for that moment.

The Base Library chosen has 5 days to deliver the copies, which can be sent to the solicitant by post office or e-mail (Ariel, Prosperous, etc).

The copies follow a quality standard concerning to the legibility of the text, size of reductions when done to adequate the size of the paper, quality of compacting when sent electronically, packing via airmail etc.

To each group of copies is attached a guide that identifies the solicitant. And the charged value is in function of the total of pages and form of sending, as well as the address where the copy is going to be sent.

MONITORED SEARCH

It is a service that allows to find or obtaining, and sending to the user the existing documents, which are in institutions **outside the COMUT net**, in Brazil and abroad. The Monitored Search located on the COMUT's Management is advised when the Base Libraries of the Program do not have the document requested by the user.

The advantage to the user, when authorizing in the Copy Request Form, the Monitored Search is that he is able to use all the operational and financial mechanisms of COMUT without being worried about fulfilling a new form and also with the use of other forms of payment to have to access other services of Brazil and abroad.

The services through Monitored Search have different prices of those charges done directly by the Base Library Program. The stated period to receive the copies can be changed according to the difficulties to find the document and also getting of copies.

MONITORING THE PROGRAM ACTIONS

The monitoring of actions of the Program is very important to keep the quality of the services and also speed up the requirements of the users, which happen in the following levels: registration of libraries and users, request and deliver of copies, collection of statistical data, auditorship of the operations; countable and financial activities, selling of Electronic Coupon.

In operational level (request and deliver of copies) there is a controlling process that allows the monitoring of each task, step by step of each request. This process is done by Solicitant Library, as well as by the user. The controlling related to the time in which the copy will be delivered allows that the goal delivering the copies to the users in 5 days only, is reached.

MAGNIFYING OF THE ACTIVITIES OF COMUT

ACCESS TO DIGITAL DOCUMENTS IN FULL TEXTS AVAILABLE THROUGH THE INTERNET

Many kinds of documents are available in full text through the Internet, including periodicals, books, technic reports, etc. However many of these documents have to be paid for the use (partial or total) and for the copies as well, which is necessary to have several passwords (after signing the access) or different forms of payments.

The utilization of COMUT to use and copy of these documents, standardizes the actions, as well as the payment in order to facilitate and allow a faster and cheaper price of access.

Contacts are being done with supplies and national and international editors in order to make practical these actions from 2004 and then.

EXPANSION OF THE COMUT FOR OTHER COUNTRIES

In the beginning of 2004 COMUT will be starting actions which will allow to extend attendance to the countries of Latin America, Caribbean and Portuguese Spoken Language Countries.

This initiative will allow the standardization and legalize the actions already developed by Brazilian libraries that in a systematic manner have delivered copies of documents coming from other countries, mainly the documents produced in Brazil about national theme.

It will possible also to commercialize the software of COMUT, whose characteristics allow that it is used for any countries, independent of the number of libraries and users.

ATTACHMENTS

Figure 1 – ORGANIZATIONAL STRUCTURE OF COMUT

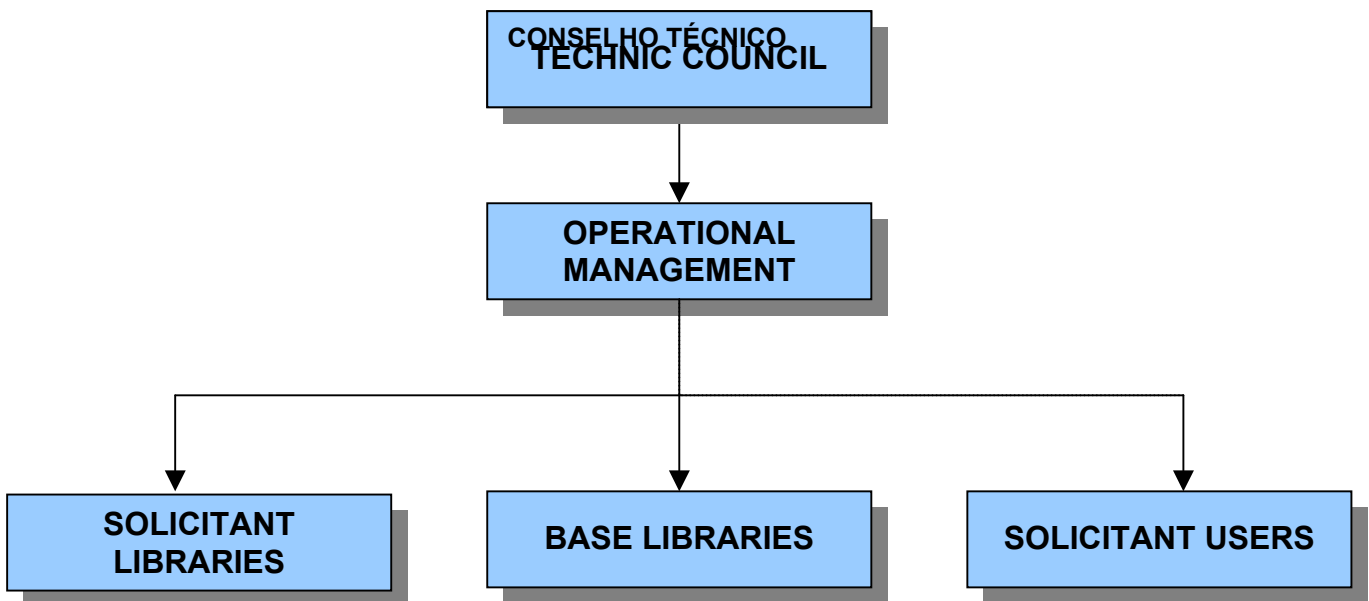


Figure 2 – LIBRARIES OF COMUT

BASE LIBRARIES AND SOLICITANT LIBRARIES
GEOGRAPHIC DISTRIBUTION

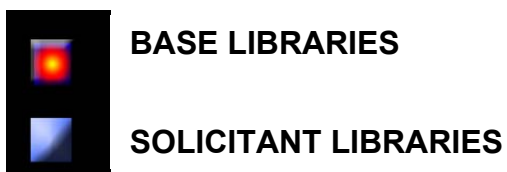
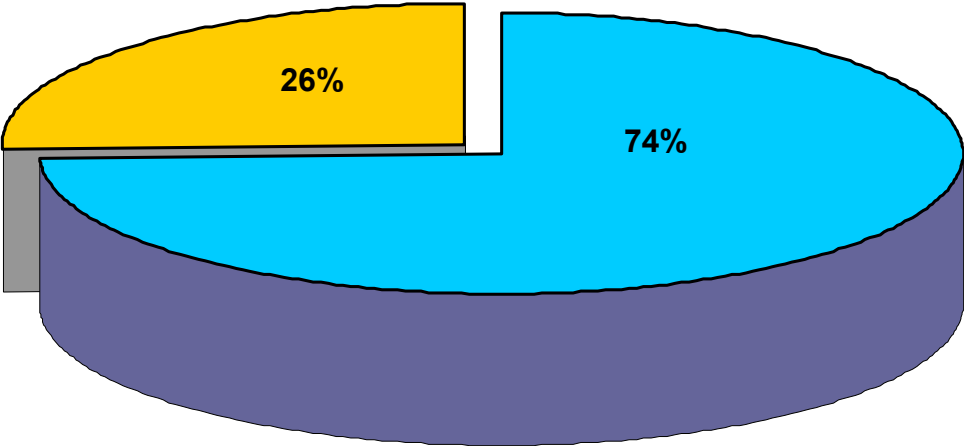
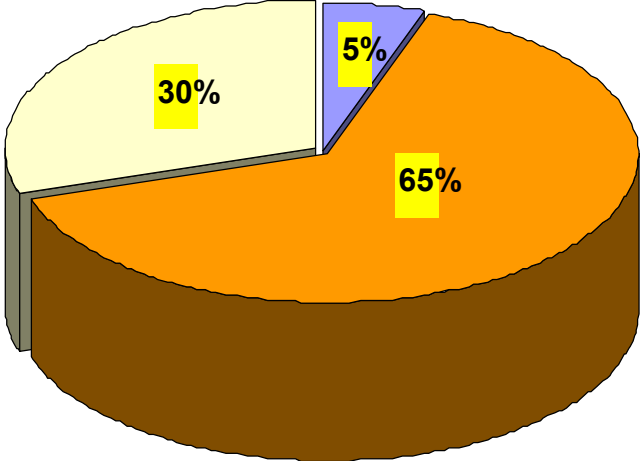


Figure 3 - LIBRARIES FOR TYPE



- 1.159 UNIVERSITY LIBRARIES
- 397 SPECIALIZED LIBRARIES

Figure 4 - POTENTIAL USERS IN BRAZIL



AROUND 3.800.000 USERS

- PROFESSORS**
- STUDENTS OF UNIVERSITIES**
- PROFESSIONALS**

BASE LIBRARIES BY AREA OF KNOWLEDGE**TABLE 1**

AREA OF KNOWLEDGE	NUMBER OF LIBRARIES
ADMINISTRATION	05
ADMINISTRATION OF HUMAN RESOURCES	01
AGRICULTURE	20
AGRONOMY	06
FARMING	14
ANTHROPOLOGY	02
ARCHAEOLOGY	01
ARCHITECTURE AND URBANISM	04
ARTS	03
ASTRONOMY	02
BIOLOGY	05
BIOTECHNOLOGY	01
BOTANIC	01
COMPUTER SCIENCE	07
INFORMATION SCIENCE	01
HEALTH SCIENCES	19
HUMAN SCIENCES	05
SOCIAL SCIENCES	02
APPLIED SOCIAL SCIENCES	01
COMMUNICATION	01
ACCOUNTING	02
LAW	03
ECONOMY	06
EDUCATION	07
PHYSICAL EDUCATION	03
NURSING	02
AEROESPATIAL ENGINEERING	01
MINING ENGINEERING	01
ENGINEERING IN GENERAL	18
EPISTEMOLOGY	01
STATISTICS	03
PHARMACY	01
PHARMACOLOGY	02
PHYLOSOPHY	07
PHYSICS	10
NUCLEAR PHYSICS	02
PHYSIOTHERAPY AND OCCUPATIONAL THERAPY	01
GENETICS	01
GEOSCIENCES	05
GEOPHYSICS	01
GEOGRAPHY	01
GEOCHEMISTRY	01

AREA OF KNOWLEGE	NUMBER OF LIBRARIES
HISTORY	02
HISTORY OF SCIENCES	01
LETTERS	06
LINGUISTICS	01
LOGIC	01
MATHEMATICS	10
VETERINARY MEDICINE	05
METEOROLOGY	01
MINERALOGY	02
MULTIDISCIPLINARY	29
OCEANOGRAPHY	02
ODONTOLOGY	08
PSYCOLOGY	02
CHEMESTRY	09
AMBIENTAL SANITATION	01
SOCIAL SERVICE	01
TECHNOLOGY	09
FOOD TECHNOLOGY	03
TELECOMMUNICATIONS	01
ZOOLOGY	01
ZOOTECHNY	01

Figure 4 - COPIES REQUEST DIAGRAM

