SIMAR - A Brazilian Network of Marine Science Libraries

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ABSTRACT

A network of libraries and information centers was formed in 1986, initially linking a few universities and research institutions related to marine sciences in Rio de Janeiro. This attempt was mainly due to the varied difficulties faced by libraries in obtaining updated information essential for teaching and research in Brazil.

The network’s acronym, SIMAR, stands for Sistema de Informação sobre Assuntos do Mar, which means Information System about Marine Subjects. Its initial task, accomplished during the first year, included 1) a national directory of 87 institutions in Brazil related to marine science and 2) a controlled vocabulary containing 1,464 words. The vocabulary, intended to be a first step towards a thesaurus, was established after the analysis of journals and other periodical publications.

The goals to be achieved in the next two years are discussed in terms of feasibility and expected difficulties. Finally, the paper discusses the importance of increasing cooperation between librarians and users, as well as among librarians in the field, especially within the limitations of a developing country.

INTRODUCTION

Information systems function as intermediate channels between the producer and the consumer of information. Services are offered to a specific community with the purpose of promoting the use of scientific information, seeking to meet the emergent needs of their users through cooperation among several information centers.

Seeking to supply the information needs of the users involved in teaching and research on marine issues, in 1986 a project was developed through an agreement between the engineering graduate school of Universidade Federal do Rio de Janeiro (COPPE/UFRJ) and the Brazilian Research Council (CNPq), with the purpose of forming a network of marine sciences libraries. The acronym SIMAR stands for Sistema de Informação sobre Assuntos do Mar - Information System about Marine Subjects.

SPECIFIED OBJECTIVE

This network was mainly formed because of difficulties faced by libraries in obtaining essential and updated information in Brazil. Through sharing of information resources among marine sciences institutions in Brazil, the network intends to increase the possibilities of access to documents.
ORGANIZATIONAL STRUCTURE

The CNPq gave financial support and acted as appraiser organ of the project’s activities during twelve months from 1986 to 1987. Its Staff included

General coordination: 1 professor of marine science
Executive coordination: 1 librarian
Technical advisors: 2 faculty members from engineering and science
Assistants: 1 librarian
1 computer technician for programming

All members belonged to the Universidade Federal do Rio de Janeiro (UFRJ).

SUBJECTS RELATED TO MARINE SCIENCE

Subjects were established by the technical advisors, professors from the College of Engineering and the Institute of Geosciences. Sciences, specialties and disciplines were comprised as: submarine acoustics; general and marine biology; general and marine ecology; hydraulic, coastal, ocean, port engineering; fishing resources management; maritime hydraulics; oceanography; sedimentology; and others.

ACTIVITIES

During twelve months, the following activities were developed:

1. Survey of Brazilian institutions involved in teaching and research related to marine sciences.

2. Analysis of journals and other periodical publications.

METHODOLOGY USED IN THE SURVEY

Through research in several reference sources, 185 institutions were identified in Brazil.

A questionnaire form was used to collect the data, and it was composed of 21 questions in order to obtain the best information about libraries and documentation centers. Then it was mailed to those institutions, together with a letter explaining the purposes of SIMAR.

On the whole, 185 questionnaires were sent (Table 1), and 131 of these were returned, due to several difficulties faced during the survey:

Some institutions had their address changed.

There were strikes during 1986/87 in several universities and public services.

Some institutions did not return the questionnaire, even after being contacted by telephone or letter.

Mail was lost.
<table>
<thead>
<tr>
<th>STATE</th>
<th>MAILED</th>
<th>NUMBER OF QUESTIONNAIRES RECEIVED</th>
<th>SURVEYED</th>
<th>NOT RECEIVED</th>
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<td>-</td>
<td>1</td>
</tr>
<tr>
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<td>2</td>
<td>-</td>
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<td>6</td>
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<td>2</td>
<td>2</td>
</tr>
<tr>
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<td>6</td>
<td>3</td>
<td>1</td>
</tr>
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<tr>
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<td>2</td>
<td>-</td>
</tr>
<tr>
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<td>13</td>
<td>7</td>
<td>-</td>
</tr>
<tr>
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<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>M. Grosso Sul</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Pará</td>
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<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Paraíba</td>
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<td>3</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>Pernambuco</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>-</td>
</tr>
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<td>Piauí</td>
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<td>2</td>
<td>1</td>
<td>-</td>
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<tr>
<td>Paraná</td>
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<td>7</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Rio de Janeiro</td>
<td>51</td>
<td>31</td>
<td>22</td>
<td>20</td>
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<td>Rio Gde. Norte</td>
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<td>2</td>
<td>1</td>
<td>-</td>
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<tr>
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<td>12</td>
<td>8</td>
<td>-</td>
</tr>
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<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Santa Catarina</td>
<td>3</td>
<td>2</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>Sergipe</td>
<td>1</td>
<td>1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>São Paulo</td>
<td>19</td>
<td>13</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>185</td>
<td>131</td>
<td>87</td>
<td>54</td>
</tr>
</tbody>
</table>
Some institutions were not known by the staff at the time of the survey.

After analyzing the answers of 131 questionnaires, 44 institutions were excluded because there was no library or there was no significant amount of documentation about marine subjects in the library. A data bank was created with information from the questionnaire and stored in microcomputer; this data served as basis for the national directory containing 87 institutions.

The directory is divided by states, in alphabetical order, with a progressive numbering for each institution. It has three indexes: institutions, abbreviations of institutions, and subjects, all of them referring to the reference number of library or documentation center.

It contains the following information for each library:

1. Address and telephone number.
2. Working hours.
3. Main subjects related to marine science.
4. Services offered to users.
5. Publications printed by institution or library.

ANALYSIS OF JOURNALS AND OTHER PERIODICAL PUBLICATIONS

Procedures were established for analysis of publications:

Selections made by specialists in the field of publication.
Assessment of keywords obtained from periodical publications and articles.
Recording of keywords on cards.
Evaluation of words by specialists and through reference sources such as glossaries and technical dictionaries.
Establishment of a controlled vocabulary.

The keywords which formed the controlled vocabulary were stored in a microcomputer database for future processing.

ORGANIZATION OF THE CONTROLLED VOCABULARY

The vocabulary is composed of 1,464 words related to marine sciences, organized in alphabetical order. The language adopted was English. Since it is in a preliminary phase, new terms can be included after they have been analyzed by a specialist. This vocabulary is a first step towards a thesaurus, one of the goals of SIMAR.

PRINTING AND DISTRIBUTION OF PRODUCTS

The directory of libraries and the controlled vocabulary were printed with support from the Brazilian research council and UFRJ. These products were distributed among the institutions included in the directory, as well as among those which were not listed but had been surveyed.
PERSPECTIVES TO BE DEVELOPED BY SIMAR

Besides continuing the activities already started, others are intended to be developed in the future.

At a first stage, the following tasks are being carried out:

1. Characterization of general as well as specific needs of the users of the network, with the purpose of identifying their professional profiles and difficulties faced during information searches.

2. Analysis of journals and other periodical publications.

3. Processing information on a microcomputer.

In order to characterize the needs of the system's users, a group was formed, composed of librarians from three universities - Federal Fluminense (UFF), Santa Ursula (USU), and Federal do Rio de Janeiro (UFRJ) - and from three institutions related to research on marine sciences: Petroleo Brasileiro (Petrobras); the Brazilian Port Authority (Portobras), Instituto de Pesquisas Hidroviárias; and the Departamento de Hidrografia e Navegação (DHN) of the Brazilian Navy. This group has had periodical meetings with the purpose of developing the methodology which will be applied during the user study. As an initial step, each librarian identified the number of potential users of the network, and the figures are shown in TABLE 2. In the case of universities, the number of students was not included. The user study itself is intended to start within two months.

TABLE 2

Distribution of Users of SIMAR (first stage)

<table>
<thead>
<tr>
<th>INSTITUTION</th>
<th>NUMBER OF POTENTIAL USERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>UFRJ</td>
<td>80</td>
</tr>
<tr>
<td>UFF</td>
<td>20</td>
</tr>
<tr>
<td>USU</td>
<td>10</td>
</tr>
<tr>
<td>PETROBRAS</td>
<td>315</td>
</tr>
<tr>
<td>INPH/PORTOBRA</td>
<td>250</td>
</tr>
<tr>
<td>DHN</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Further in the future, the following activities are planned:

1. Enlargement of the controlled vocabulary.

2. Construction of a thesaurus of marine sciences.

3. Development of software for PC's to be used by libraries belonging to the system.

4. Expansion of the information contained in the directory.
CONCLUSION

This network should hopefully establish further communication and cooperation among institutions, in order to achieve a better use of the marine information resources available in Brazil.

However, it will be successful only if users and librarians increase integration among themselves. Through this integration, the information systems will work together with the scientific community and not only for it.

REFERENCES


