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THE ROLE OF THE LATIN AMERICAN CENTRE FOR ECONOMIC AND SOCIAL DOCUMENTATION OF THE ECONOMIC COMMISSION FOR LATIN AMERICA IN INFORMATION SYSTEM DEVELOPMENTS IN LATIN AMERICA

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The Latin American Centre for Economic and Social Documentation (CLADES), of the Economic Commission for Latin America (ECLA), is engaged in the elaboration of a medium-term work programme which is intended to provide basic information system support for economic and social development activities of the region, especially those related to the United Nations' programmes.

CLADES is attempting to focus on the key problems of development of appropriate information systems in the region, and will explore and experiment with alternative mechanisms for dealing with the major technical problems and political issues affecting the design and implementation of these information systems. Due to the uniqueness of the problems being considered, simultaneous and interrelated actions are required on concrete projects, evaluation of the feasibility of activities which are proposed or being carried out, and conceptualization of an overall strategy for information system developments in the region. The ideas which are posited here are most tentative, and should be considered only a transitory conceptualization of the paths to be followed, subject to modification as experience is acquired and criticisms and evaluations are made. Since the strategy is especially intent on being flexible so that national priorities and needs are always placed in the forefront, it is hoped that this strategy will be criticized by interested groups and persons throughout the region in terms of such priorities and needs.

This process of experimentation, evaluation and dialogue regarding information system developments takes into account the work and proposals of other international organizations and efforts. In general, CLADES is interested in contributing to and collaborating with the work of UNISIST. With regard to socio-economic information, CLADES considers its work as a contribution to, among other objectives, the design of the Development Science Information System (DEVSIST), agreeing with

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the need for a system such as the one that is proposed for DEVSIS and being eager to test and translate into action viable principles for the development of an international system which takes into account the realities and needs of the region.

In describing the bases for this strategy, this document is divided into three sections:

(a) Key concerns of CLADES regarding present information developments.

(b) Premises for CLADES' work.

(c) CLADES' work programme.

A. KEY CONCERNS OF CLADES REGARDING PRESENT INFORMATION DEVELOPMENTS

On the basis of a very general overview of present information developments in the region, CLADES has focused on a set of concerns. One major concern of CLADES is the lack of taxonomies and other methodological devices in the information field which indicate which type of data representation is most appropriate for different problems. As a result, there tends to be considerable confusion regarding the relative utility, costs and applicability of data inventories and indexes, data banks and registers, institutional reference files, referral services, project files for data summaries or bibliographic documentation services. This confusion leads to the contracting of information system experts who are not specialized for the type of data representation which is appropriate, developing systems which are often too expensive or detached from immediate data needs, or which do not take due advantage of the experiences of the region with regard to each of these types of data representation.

Another major concern of CLADES is the lack of clarity of concepts, or of the conditions for the selection of one or another approach to the design of the information system. At the regional and national level, there have been numerous meetings on information systems at which each specialist describes and defends his approach, without a critical analysis

/and systematic

and systematic comparison of these approaches. Implicit in the debates are conflicts between "relevance", (a preoccupation with immediate local information needs) and "interchange" (the development of output and input stations of international specialized information systems), conflicts between the decentralization and centralization of information networks, conflicts between structure and flexibility in classification schemes for vocabulary control, and other differences in approaches. The confusion on the choice of approaches to information system design could be decreased to the degree that useful taxonomies are created which set out the conditions appropriate for each approach. Not only is it necessary to summarize the experience of the region regarding the application and results of the alternative approaches to information system design, but also to explore the possibilities of techniques which compatibilize the goals which are assumed to be mutually exclusive. For example, interchange and relevance may both be obtained by the use of "equivalents" which act as bridges between international and locally derived classification schemes.

A third major concern is the continuing problems of communication between the information specialist and the user. In this regard, there has been much attention to user profiles, user training and other such techniques. The basic premise of such techniques is that either the user or the information specialist must try to approximate an understanding of the language and intellectual framework of the other, without absorbing or requiring too much time or effort on the part of the user. Especially for specialized documentation or information services, CLADES is interested in experimenting with techniques based on a different premise: the user and information specialist, even when both are working in the same organization, should consider that a contract for services exists between them, and the output or results of the service cannot be expected to be pertinent or of high quality unless both of the contracting parties complies with their respective responsibilities. This approach offers the advantage of demonstrating to the user that the usefulness of the information he will receive depends largely on his participation in the design of the information

/system. The

system. The contract should be very specific regarding what is expected of the user: that he must provide certain specific guidelines and information in determined periods. Estimates can be made of the time this would involve. Even where the user is not expected to pay for the service in monetary terms, it could be very useful to draw up contracts requiring payment in substantive contributions by the user.

A fourth major concern of CLADES is the lack of co-ordination of efforts in the region to produce bibliographic series, or series of annotations or synopses. Present efforts in this regard are very constructive, and of high quality, but would be considerably more valuable if at least six conditions were met:

(1) Standardization among different centres of their processing of the materials so that retrieval is facilitated.

(2) A division of labour among the centres producing such series, in order to avoid a duplication of efforts, and in order to permit the human and technical resources which are being occupied to engage in more in-depth indexing or processing.

(3) Priority attention to materials originating in Latin America, along with reciprocity agreements for exchange of the Latin American series for those produced elsewhere and with the elaboration of "equivalents" to permit the retrieval of information which has been processed using other classification schemes.

(4) Widespread diffusion of the series in the region.

(5) Preparation of the series for the possibility of automatic data processing.

(6) Different types and depths of indexing, depending on the type of document, subject-matter and general value of the document for the users, on the premise that while such discrimination among documents is necessarily somewhat subjective, it is both arbitrary and a waste of resources to subject all documents to the same level of indexing.

CLADES is presently elaborating projects of such co-ordination regarding socio-economic information and regarding information on science and technology.

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A fifth major concern of CLADES is the lack of attention to alternative mechanisms for the regionalization of information systems. Most of the major projects being carried out in the region have an international and/or national focus. Proposals for regional information networks have been made, but occasionally they call for a centralization of large amounts of data on a variety of subjects, which is unrealistic from technical, economic and political points of view. There are less ambitious and less imposing methods of deriving the benefits of regionalization. One possibility is a system of regional or subregional information centres, each with rather complete data collections or at least reference collections on specific themes, and which act as referral services or clearing-houses. Already there has been a development of relatively complete libraries and documentation centres on specialized themes in one or another Latin American country, giving fine services to users in that locality or area of the region. Expansion of the reach of these centres, both in terms of input and diffusion of information, requires work on thesauri and studies of the most appropriate channels of information between the centres and sources or users throughout the region. It also requires contact in the locality with substantive specialists, implying the development of a regional specialized "centre of excellence" which engages in research and engineering activities on the frontiers of knowledge applied to regional problems. This is not to say that such themes would be the exclusive prerrogatives of the countries with regional or subregional specialized information centres. The regional or subregional centres would have the most complete collections of international materials or secondary references on the specialized topic, and would produce indexes and series on regional materials. They would work closely with their counterparts which might exist in each of the other countries and would promote the development of such national counterparts where they do not exist as yet. On the basis of preliminary information, it appears that important regional specialized information centres could be reinforced or established and related to "centres of excellence" on integration in Argentina, on technological policy in Peru, on population questions in

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Chile, on agricultural questions in Costa Rica, on environment in Mexico, and on aereospace and medicine in Brazil. These possibilities and the candidates for other specialities will be evaluated in surveys which CLADES will be carrying out. It would be hoped that international information systems which process information on these questions would recognize and support these specialized regional information centres, and that these centres would co-operate in regional activities to standardize some aspects of information processing.

A sixth major concern of CLADES is the lack of co-ordination of information system developments in each Latin American country. Some present developments distract attention from what should be the major focus: the development of co-ordinated and coherent internal acquisition and diffusion systems for national needs and objectives. For example an unfortunate side result from the constructive actions being taken to develop international information networks, with Latin American participation, is that parallel efforts have taken place in some countries regarding the same or similar types of information. This means that different institutions or the same institution in a country are preparing data for different international exchanges, particularly in certain technological fields. The interchange of information with international (or regional) systems should be considered but one aspect of an internal co-ordinated effort. Techniques exist to permit this information interchange, without distorting the major focus on national concerns, although such techniques may imply an increased initial cost. It needs to be recognized that effective regional or international information interchange is greatly limited unless viable strategies and mechanisms are created for co-ordinating related information activities within each country, and that this is a difficult task especially in those countries that have achieved a moderate level of information systems' development.

The problem of parallel information systems is not only related to international information initiatives. Within the countries, national planning agencies and other co-ordinating bodies require more and more data from the ministries, public enterprises and other entities, often

/elaborating new

elaborating new systems without an adequate analysis of the existing systems, involving the duplication of manual and machine processing of the same data.

Related to the previous concern is one regarding the difficulties which users face in search and retrieval, due to the unco-ordinated development of information systems on related subjects, and the dispersion of files. In the case of scientific and technological information, separate information systems are developed for the different technological support elements, including technical norms, patents, basic research, alternative technologies, consultants, availability of technical and financial assistance, evironmental controls and information, conceptualization of problems of technological development, innovations, export markets, requirements for acceptance of goods for shipping and entry in other countries, etc. The user - exporter, industrialist, government regulator, or other - must often engage in a separate search process for information on each of these elements in relation to his product or service. There is a need for national sectoral search services for technological information, with internationa and regional co-operation in reducing the costs of searches and in providing better access to the needed information. Model services for these purposes already exist in some Latin American countries in the industrial and other sectors.

Finally, CLADES has taken note with pleasure of the widespread adoption in the region of the OECD Macrothesaurus as a basic controlled vocabulary for socio-economic information systems. This usage will facilitate information exchange. However, CLADES is concerned with the amount of confusion which apparantly exists on the appropriate library classification scheme for different conditions, and with the occasional indiscriminating use of the OECD Macrothesaurus or other thesaurus. The entire question of classification needs considerable analysis in order that documentation services and libraries have guidelines for the selection and adaptation of classification schemes which fit their needs.

/B. ORGANIZATION

B. ORGANIZATION AND METHODS OF CLADES' WORK

CLADES was created for the purpose of carrying out the responsibilities of the Economic Commission for Latin America regarding "its documentation and information work in the economic and social spheres", furnishing "the Governments of the countries members of the Commission with whatever may be of interest to them", and "providing the countries that request it with technical assistance in the establishment of national centres for economic and social documentation" and for the development of "up-to-date national systems of economic, social, scientific, statistical and technological information" co-ordinated with "the regional documentation system which has been set up within ECLA". (Resolution 303 (XIV) of the Economic Commission for Latin America, adopted at its 14th session on 6 May 1971.)

In dealing with the problems of the region in information systems development, CLADES considers the following organization relationships and methods to be appropriate, these always being subject to review and modifications:

(1) At the regional level, CLADES' work is oriented to reinforce attainment by FID/CLA (Federación Internacional de Documentación/Comisión Latinoamericana) of its objectives, and to help establish the mechanisms by which regional organizations or groups have the information they need for their decisions.

(2) In the field of technical norms regarding documentation and information, CLADES' work is oriented to assist in proposing regional norms and in the necessary consultations and to promote the use of norms which are adopted at the regional level within the framework of COPANT (Comisión Panamericana de Normas Técnicas).

(3) CLADES' is working as closely as is possible with national information institutes, centres or associations, channeling and consolidating its technical assistance activities, and other activities which affect the evaluation and development of national information systems, as much as possible through these institutes, centres or associations in order to reinforce internal co-ordination efforts.

/(4) Notwithstanding

(4) Notwithstanding the above, CLADES is promoting and offering technical assistance for the development of regional specialized information centres associated with "centres of excellence", and helping to co-ordinate efforts to establish in-depth indexing and effective data interchange of the materials produced in the region on the specialized topics.

(5) As part of the activities mentioned above, CLADES desires to promote and help co-ordinate the exchange of information among documentation centres which are associated with member institutions of CLACSO (Consejo Latinoamericano de Ciencias Sociales) and of other regional or subregional associations of research institutions.

(6) CLADES collaborates in offering technical assistance and the computer programmes for ISIS to those institutions which are in conditions to administrate these programmes, so that there can be the development of an effective system of exchange of data bases, and helping or encouraging the preparation of data bases for this retrieval system.

(7) Work on the structuring of thesauri and mini-thesauri is being conducted to facilitate retrieval and to assure greater relevance. The structuring is taking place on three levels: (i) the setting up of key parameters (geographical place, spatial reach, product, methodology of study, etc.) and grouping of descriptors for these parameters; (ii) the drawing up of "intellectual maps" of socio-economic concerns in Latin America to be reflected in the classification of materials, and (iii) the co-participation between substantive experts and information experts on mini-thesauri development (particularly in the fields of education, transport and integration). Alternatives to thesauri are being evaluated as well.

(8) CLADES will experiment broadly with different types and depths of indexing, in order to hypothesize regarding the appropriate indexing for different types of documents and different subject-matters. CLADES is interested in evaluating other experiments and experiences in this regard, in order to inform periodically the regional members of FID/CLA and participants in UNISIST and DEVSIS of the results of this evaluation.

/(9) CLADES

(9) CLADES is experimenting broadly with different forms of user-information specialist relationships, regarding the development of specialized information services. CLADES is interested in evaluating other experiments and experiences in this regard, in order to inform periodically the regional members of FID/CLA and participants in UNISIST and DEVSIS of the results of this evaluation.

(10) CLADES' own processing of information is intended to complement the work being done by other centres in the region, concentrating first on the publications of ECLA/ILPES, and second on themes of high priority in the work programme of ECLA/ILPES which are not covered by other indexing activities on Latin American materials.

C. CLADES' WORK PROGRAMME

The CLADES' organigram is attached as Annex I to this document.

The following is a brief summary of the work programme of CLADES, divided into four general headings.

1. Advisory services to ECLA/ILPES Divisions and other United Nations programmes on how to meet information needs of programmes and projects

The major concerns here are the problems of international experts in obtaining the information most pertinent to their research and technical assistance activities. CLADES has concentrated first on helping the interested Divisions with the development of the capacity to circulate and store in a rational form the information which is received. This involves the reorganization of distribution and retrieval methods, and training of secretaries and research assistants. The next step is the rationalization of acquisition of the information. With regard to the problems of information at its sources, CLADES has been advising and training the interested sectoral planning experts of ECLA/ILPES so that they can, in turn, advise the countries of the region on the adaptation and application of a general methodology for the development of national information systems for planning. The information needed by United Nations programmes and projects is one of the products of such systems.

/2. Information

2. Information retrieval and other processing services

CLADES is working with CELADE on the installation of ISIS in Santiago, and will act as ISIS Co-ordinator. CLADES, in collaboration with CONACYT of Mexico, is encouraging the installation of ISIS in other points in Latin America, apart from Mexico where the system has been functioning successfully for some time. CLADES is working presently on some immediate internal applications of ISIS in ECLA/ILPES, including the indexing and distribution of ECLA/ILPES publications so that adequate indexes and the documents themselves are distributed rationally and opportunely in the region. Early in 1976, indexing of ECLA/ILPES publications and of bibliographies will begin, as well as of materials on selected topics not already covered by other indexing services. CLADES is collaborating with the ECLA Library in forming a bibliography bank for consultations. Only in the case where it is demonstrated that the user cannot be satisfied with service by means of ISIS retrieval or use of the bibliography bank, will the possibility of producing special bibliographies then be considered.

CLADES will be experimenting broadly on user relations in thesaurus development and indexing on social-science topics.

CLADES is collaborating on the development of a system of control of programmes and projects undertaken by ECLA/ILPES, with the goal of interchanging information with the Common Register (CORE) of projects of the United Nations.

3. Technical co-operation through information exchange

CLADES is embarking on a survey of socio-economic information centres in each of the Latin American countries, in collaboration with national information institutes, centres or associations. The results of the survey will be compiled in a Directory, and will be the base for a permanent referral service and for the drawing up of projects on national information system developments oriented to regional and international information exchange. This project is being financed by IDRC as part of its interest in the Development Science Information System (DEVSIS).

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CLADES will join with INTAL in a project, financed by the IDRC, in order to reinforce the work of acquisition and indexing by INTAL of materials on integration in Latin America. CLADES is undertaking a survey of other services which are in conditions to operate as regional information centres on specialized topics, in order to co-ordinate and lend technical assistance to their indexing and other activities. Particular attention is given to their work on bibliographic series, annotations and synopses, and CLADES has already set out proposals in specific cases regarding the standardization of this work, division of labour among the centres doing this work and broader distribution of the results.

The major concern is that of the development of co-ordinated national systems of socio-economic information, with the capacity to meet the most pressing and most important national information needs and to interchange information with regional and international systems. CLADES is working with interested national information institutes, centres and associations to programme joint training and technical advice activities to cover the areas of greatest need for the development of quality socio-economic information services. The first goal is to set out viable strategies and mechanisms of co-ordination of related information activities in each country, considering centralization of national files as a possible by-product where politically and technically feasible.

CLADES is proposing a similar activity in relation to the scientific and technological information centres in the region, in order to identify an cover the major problems of services in their information searchers, and otherwise in connecting information sources with policy-makers and other users.

/4. Documentation

4. Documentation norms to assure relevance and to facilitate information exchange

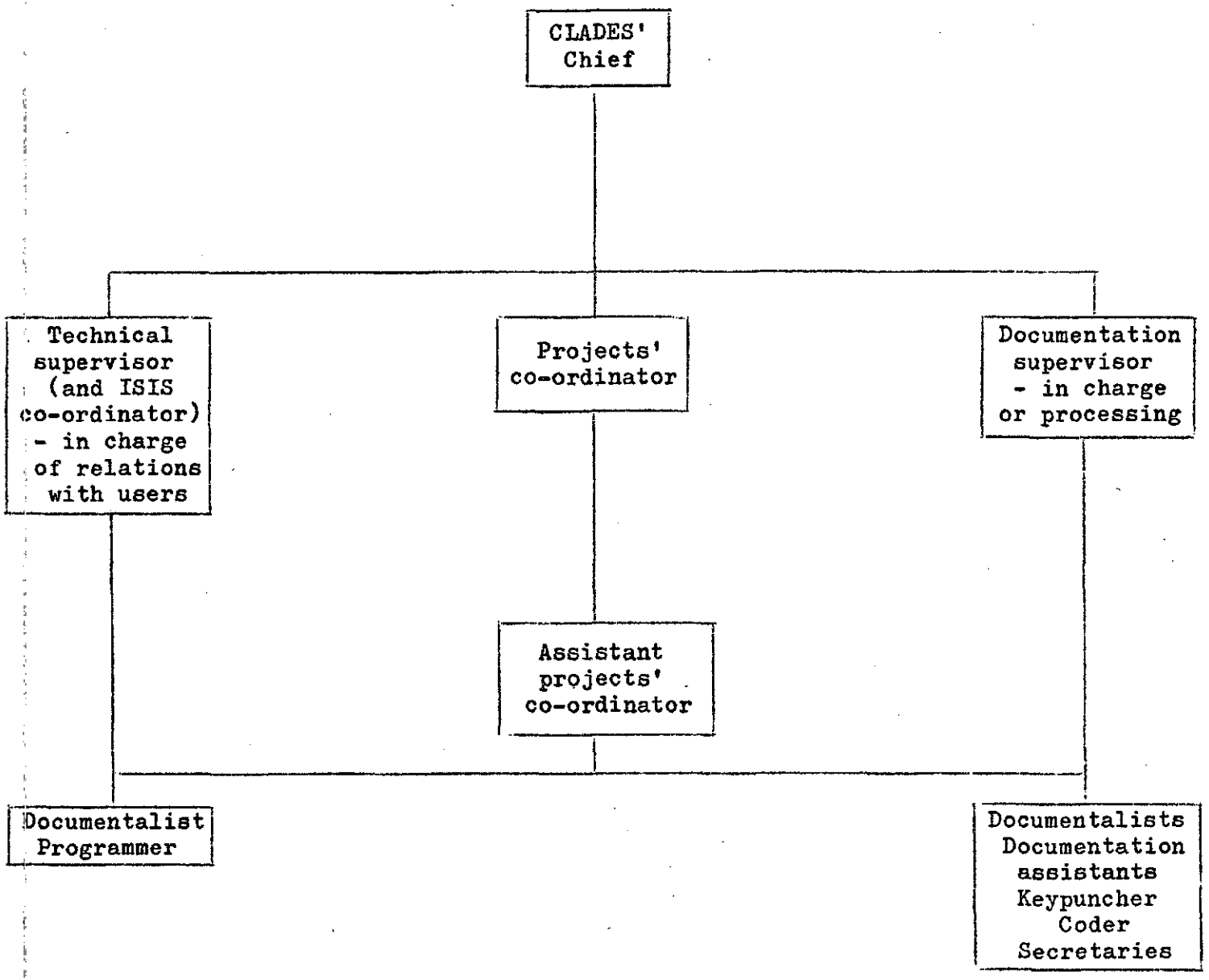
In order to promote the regionalization of socio-economic and scientific and technological information systems, CLADES has initiated consultations and projects for the drawing up of appropriate thesauri and mini-thesauri, and regarding norms on documentation. CLADES is experimenting with the structuring of a controlled vocabulary (based on the OECD Macrothesaurus, with appropriate variations) of socio-economic terms in such a way that retrieval is facilitated and relevance for Latin American users is assured.

CLADES is proposing a similar activity of thesauri development on scientific and technological policy and planning, with application also to information on technical norms, patents, research and environmental concerns.

CLADES is participating in the Chilean committee, of the "Instituto Nacional de Normalización" on drawing up of norms of documentation, and has initiated consultations with COPANT and the national technical norms' institutes regarding the work being carried out throughout the region on this topic and the need to agree upon regional norms.

/Annex

Annex


CLADES' Chief
Technical supervisor (and ISIS co-ordinator) - in charge of relations with users
Projects' co-ordinator
Documentation supervisor - in charge or processing
Assistant projects' co-ordinator
Documentalist Programmer
Documentalists Documentation assistants Keypuncher Coder Secretaries