EDUCATION AND TRAINING OF INFORMATION HUMAN RESOURCES

IN NEW TECHNOLOGIES FRAMEWORK - A LATIN AMERICAN APPROACH

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Abstract

This paper presents the education and training of information
human resources in developing countries. A solution is proposed con-
sidering the global cycle of information and the possibility of the
application of new technologies in its different stages, according
to the reality. A project, carried out by the FID/CLA/ET Committee,
is briefly explained. Two proposals, coming forth in the first stage
of the work, are recommended at the end.

1. Introduction

Considering that it is not possible to solve the problem
of education and training of information human resources through cu-
rricula partial changes, additions or adaptations that do not take
account of the deep transformation in the information world with the
new technologies impact, we propose to consider another way of
facing the problem.

The parameters of this new approach are the global cycle
of information and the applications of the new technologies through
its different stages.

The antecedents of this new approach to the problem are
taken from UNISIST Guidelines on information systems and services (1),
and the Iberoamerican Conference on Scientific and Technological
Information and Documentation (REUNIBER'78), Madrid, 1978 (2).

The chilean librarian Ana María Pratt, was invited to pre-
sent a paper for the Latin American Meeting of Schools of Librarian-
ship and Documentation, Bogotá, 1976. She makes reference to the in-
formation process identifying its stages (3). Ricardo Gietz in the
XIII National Meeting of Librarians, Mar del Plata, Argentina, 1977,
also refers to the conceptual extent of the information process and
describes in general the steps corresponding to each stage (4).

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2. Parameters considered

2.1 Global cycle of information

The different elements of every stage are considered for the description of the global process of information (5).

Three great stages: generation-production, transference and use of information may be determined in a wide conceptual framework.

In the generation stage we find the author that creates information through his intellectual work and data compilation. This information is first registered by the author, and then published, by the joint work of editors, publishers and printers.

The transference covers various operations for information processing and also procedures for the provision of services. In this stage participate information specialists and technicians.

Those who need information for studies and researches or for the planning activities are the users. At this stage the cycle is closed.

The use of information can generate new information. Is in this sense that users may also be authors.

There are also other individuals which have a collateral part in the cycle. They are teachers, researchers and decision makers.

Analyzing each stage we can determine steps and indicate the functions and activities related. Consequently, the kind of technology to apply, and the most appropiate moment to do it are possible to stablish, as well as the necessary training of the different specialists participating in the cycle of information.

2.2 Applied technologies in the stages of the global cycle of information

It is not possible to analyze the information activities without considering the recen achievements in computers, microelectronics and telecommunications, which contribute to the current problems of the information field, as for example the increasing volume of information and the need for a quick and easy access to it.

It should be emphasized that there is a reciprocal effect between the advancements in the new technologies and the global comprehension of information field development considering that the technological achievements offer new possible methods.

For example the "decrease in computer memory costs, along with the less costly information input procedures, allow the storage of bibliographical materials in the form of full texts, as opposed to the presently accepted storage of abstracts" (6).

The paperless society theory as well as electronic publishing (7, 8, 9), show a revolutionary future to be seriously considered in studying the global cycle of information, and the human resources involved in it.

East has mentionned the great advantages that the application of the new technologies provide in developed countries (9), such as:

"1. to reduce publication and distribution costs
2. to increase access to information for individuals
3. to speed "publication" of information
4. to simplify and make more effective generation and dissemination of information
5. to stimulate and make possible new means of access to, and use of, information"

It is important to point out that through the use of these technologies, it may have a self defeating effect in developing countries because of the economic factors and for the dependance produced by their application.

However, the specialists of developing countries should be aware of the existing advancements, in order to evaluate its applications according to the local necessities, or create new technologies or compatible systems, in their country or region.

Other technologies, easier to access, like microfilming, hardcopying, audiovisual means, printers, etc., are also important in many stages of the global cycle of information.

3. Needs of a new education and training of information human resources

How is it possible to face the education and training of human resources in order to face the challenge of the present times?

Looking through the curricula of the Latin American Schools of Librarianship and Information Science, it can be seen that there is a constant worry to include subjects of study on technological advancements. But, at the same time the proposed changer are not always supported by a real knowledge of the users to be served and not all the professionals participating in the information processing are considered.

Some specialists consider that the information problem can only be solved through the integration of interdisciplinary efforts based on a deep analysis of the community in which activities are developed (11, 12).

The Education and Training Committee of the Latin American Commission of the International Federation of Documentation (FID/CLA/ET), through the Working Group on Information Human Resources of CAICYT (Argentine Center for Information in Science and Technology) is carrying out a diagnoses of human resources covering the global cycle of information.

3.1 <u>Studies and diagnoses for the development of human resources in information</u>

The project covers the following stages:

1. detailed description of the stages corresponding to the global cycle of information, stablishing functions, abilities and skills and the level of training necessary to perform them;

2. comparison of the above description with the actual situation which data will be obtained through surveys;

3. design of special tools for the surveys of present education and training activities and the study of the human resources that participate in the stages of the global cycle of information;

4. comparison and fulfillment of the national diagnoses in Argentina and ellaboration of guidelines for performing similar diagnoses;

5. conduction of national diagnoses in the other countries of the region;

6. creation of a regional daba base using the results of the diagnoses.

Stages 1 to 4 are presently being developed in CAICYT (Argentina) by its Working Group on Information Human Resources, in consultation with FID/CLA/ET members. The possibility of enlarging this cooperation to other organizations like IFLA/LAC is under consideration.

Finantial support from souces like Unesco, CEPAL/CLADES, OEA, IDRC, etc. are sought for the last two stages.

At this time we will make reference to the methodology applied in the two first stages of the project.

The methodology proposed by Ricardo Gietz (10) is applied in the description of the global cycle of information.

In this paper a matrix is presented where the variables of the process are shown: the general operation, the specific operation, the variables according to the methods, techniques or applied procedures (for example manual, semi-manual, mechanical, or automatic archives), the function that should be fulfilled for each task and the abilities and skills required for performing them efficiently.

Once that all these elements are clarified it is possible to determine a profile of the different specialists that participate in the global cycle of information. At the same time, a survey on the education and training activities of human resources in Argentina is being conducted. The result of this survey will provide precise data on the formal studies programs, level of pupils, courses, seminars, etc., of different institutions in the country.

Comparisons with the existing services and systems at different levels (public, school, university and specialized libraries national and regional information systems, publishing houses, publication departments of scientific institutions, etc.) will be fulfilled with sampling surveys carried during the study of the global cycle of information.

4. Conclusions

This paper is a first approach to describe the ambitious task of the FID/CLA/ET Committee.

Two proposals can be presented as regards the present advancements of this work:

1. that the different organizations involved in the education and training of information human resouces (schools, associations and other institutions, regional and international organizations, etc.) support the fulfillment of the diagnoses promoted by the FID/CLA/ET Committee, considering that the results will serve as a basis to improve the role in education and training that each one has in the region.

2. that the education and training of information human resources include training in the new technologies with the purpose of preparing the specialists in the different stages of the information cycle, to evaluate, apply or create new technologies, according to the possibilities in the region and the real needs of its users.

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