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## INFORMATION MANAGEMENT AND THE INFORMATION PROFESSIONAL

### ABSTRACT

This paper will offer some thoughts on how the concept information management and its applications is giving a new focus to the way institutions gather, organize, disseminate, applied and benefit from information as a result of their demands and needs, and how this "new" focus poses a question and a threat to educational programs in the field, mainly to those with a traditional orientation.

Information management is already a well digested concept in a number of institutions located in developed countries, but not so well applied in institutions in developing countries. Mexico is not an exception.

There is a clear need, on one hand, to alert institutions on how information, internal and external, with help them in every step, from decision making to practical actions, and on the other, to broaden up the horizon to information professionals as to the role they should play as information managers.

## BACKGROUND

We are gathered today on the occasion of one more FID/ET Seminar which offers to the participants, and to many more who will be looking at the papers presented here, the thoughts, concerns, expectations of a number of professionals engaged in information activities, interested specifically in information management, and probably most of them, also responsible for educational programs at a number of institutions throughout the world.

Information is growing exponentially. I should say that it is comparable to the air we breathe. We are immersed on it and the more information we breathe, the more we produce. "Information keeps adding value to the existing knowledge of people, or at least activates existing, but passive knowledge"(1).

This is why it is self renovated, the higher the number of people, the greatest the possibility for the generation, and production of more "air". Some times -as the air we actually breathe for the benefit of our physical lives- it is also polluted and it is through a process of selection and analysis that we are able to get or to offer the small or big amounts of information required for increasing our knowledge on the subjects/topics, we are interested in, or about the specific activities which we are committed to, for taking the right decisions, for supporting innovation processes, for the correction of routes or trends, and for a number of other reasons for which information will help in reaching the set goals. The needs or interests of the information user communities are widely heterogeneous, both in terms of amount and content because of a number of variables: personal, organizational and cultural environments, professional activities,

specific functions, and even age and sex. For satisfying these needs, the application of different techniques and procedures, along with the use of technology -more or less sophisticated- is required.

We are faced now with a very complex information picture due to a number of factors which alter it both in terms of quality and quantity. This information picture has to be looked at from various angles, each one entailing very particular facets and problems, interlinked in most instances, but so different in nature, that certainly can not be handled by a specialist in a single discipline.

Not so many years ago, the libraries played the main role, not to say unique, as repositories, organizers and providers of information to a wide range of communities. Along libraries for kids, there were others which responded to a special clientele in the academia, research & development, industrial or service settings.

But there is a constant change. Galvin's first law of institutional dynamics reminds us that "given a dynamic external environment no institution can ever remain static. It is either improving or it is declining" (2). This change is also definitely taking place in this information world, where the incidence of one factor on the others, technology, telecommunications, the need to know more and with greater precision about who the users are, what are their requirements, what sort of information they need and how they want to obtain it, for what purposes, how to transfer information, and so on, has put a heavy burden on the managers/providers of information services, so as to secure that their information units, whatever the names, are fully effective and efficient. This demand is clearly felt on environments or settings other than libraries (although these are not excluded), where information is managed, as a main ingredient for their development and as an indispensable support for reaching a competitive position. We

are clearly talking about enterprises, government bodies or service entities, where the present and or potential clientele is more sophisticated in terms of information needs and requirements, in order to gain the competitive advantage which should be their particular feature for their success in this new global market. As a result of it, information specialists on the various areas, fields which actively play an important role for the benefit of the user, is demanded: specialists on telecommunications technology, on systems, on communications, on information organization and retrieval, -on any activity which is determinant to the whole information process, from its generation to its dissemination, and last but not least, to the topic of our present interest, and which naturally involves the previous ones: the management of information.

And it is this complex and challenging information world, the FID "raison d'etre", devoted for so many decades either to research, to defining standards; to lay the foundations for the development of specific services and or activities, to offer guidelines for the training of information personnel. This international forum is also ready to face other issues which might emerge in the coming years, as a result of the continuous transformations that will keep taking place in the information world

With this frame of reference I intend to give in this presentation some thoughts about information management and its implications on the education and training of information professionals, with a specific focus on Mexico.

## THE INFORMATION MANAGER AND ITS ROLE

Information management -as understood here- is the attitude and aptitude required for making the most of this vital resource, information, which rightly handled, would permit the final users of a given organization, enterprise, to make the adequate and on time decisions on their particular area of responsibility.

Information management, therefore, has a very different and specific connotation. An interesting article on this topic lists the fundamental characteristics of information management. These are the following: "integrative: content oriented; organization - wide, dynamic and strategic" (3). It offers a new focus on to how to handle information for the benefit of the final user. It is not solely the management of documentary resources, a responsibility assumed successfully by professional librarians and which is certainly a topic also widely dealt with in the literature. Information management goes far beyond. It comprises also the administration of other resources: physical, technological and human. But not only that. It has to do with their integration, both from within but also from outside, in as much as there are external resources which support the information process in most entities.

This integration is a must because the "new needs" of sophisticated users are to be responded by a wide number of information sources and services, in terms of type, origin, contents, formats and procedures, which greatly differ from the services offered by libraries. It is well known that nowadays, enterprises, industries -of any size- commercial or service entities; policy making institutions; laboratories; research & development groups; government agencies, among others, do not require solely bibliographical information or the actual documents. Other kinds of information/data are

as important, or even more.

Depending on the need or the problem, they demand information of different types: textual, statistics, graphics, drawings, etc.. In terms of origin I am referring to a wide variety of information "pieces", either formal or informal, as well as external- not always available through commercial channels- and internal -that is the information generated by the various areas, departments, divisions of a particular entity/institution. The origin of all these information pieces range from sources, either verbal or written, peer communications, and even rumors, to the gray literature, and the great variety of commercial channels. Concerning content, there is also a vast diversification: data/information generated by government or private entities on "n" topics: laws, regulations, guidelines which would support the course of action that should be followed in a specific industrial sector, or for implementing policies; or technological data, such as patents or standards; statistics/market information required for identifying the weaknesses or strengths of the competition, concerning prices, markets, production (type of products, volumes, etc.); data required for penetrating new markets either nationally or abroad, and eventually defining the adequate tactics that should be applied; information about what competitors or R & D departments or labs are doing or planning to do, or just to mention one more possible need, information for developing new services or products. It is through the adequate analysis and application of the content of the so many information sources, that organizations/enterprises will succeed in reaching their goals, in being truly competitive.

By formats, we can mention the various ways the user gets information in response to his/her demands, from the printed word in journals, books, pamphlets, -either in paper or microform- to a listing of references and or abstracts obtained from an on line search, or on CD-ROM.

But in most instances these users are not interested, as previously indicated, in getting the actual documents, the "raw product" so to say, which is a typical library service. For sophisticated users, other services have to be implemented such as information analysis and synthesis, which means adding value to the service in response to their needs and expectations, either because they do not have the time or the personnel to be devoted to those activities or also because, strangely as it might seem, they do not know how to proceed on such analysis. Services with this value added component, are to be tailored to specific and personal needs, and this is why regardless of cost, makes them so valuable to the user.

By procedures we could refer to the media for obtaining the documents/data/information, via commercial channels, personal/ professional contacts, or through the use of communications/ technological media: networks, computers, electronic mail, among others, so common and widely used nowadays.

Closely linked to the way information should be stored and disseminated, the information manager is responsible also for deciding how and what information technology resources will be acquired or used, in the case of telecommunications, to analyze the infrastructure available and to determine the resources needed for its use and optimization. Cost-benefit analysis are imperative.

The commitment of responding to the users interests, needs and problems leads to another "new focus" which has to be integrated into information management, this is the marketing approach, not so relevant, at least up to very recently, when dealing with the administration of libraries. But "...since information management begins with the needs, wants and expectations of customers, a marketing approach is essential and



appropriate. Success in information management is measured by customer satisfaction and in some instances, by the revenue earned by the information management department or group" (4).

The information manager "function is primarily focused on corporate strategy and direction, and emphasizes the quality of decision -making and information use needed to improve overall business performance" (5). For achieving it professionals will have to have, first, a very clear knowledge and understanding of the mission, objectives and goals of the institution they are accountable to, and to manage the so different issues and resources, of all sorts, which incide in the information process, from its generation to its retrieval, so as to facilitate the information flow in all directions, from and for within -the own institution- and from and for without -all the external avenues that have to be contacted as suppliers for the information process since "political, economic and social developments can often have a greater impact on business than internal operations" (6).

The information manager will therefore "be a person with a status of a senior manager executive in a company or organization with responsibility for the strategic organization-wide management of information, information systems and information personnel" (7).

## THE MEXICAN INFORMATION ENVIRONMENT

In considering how to deal with this part of my presentation, I decided to focus myself to my personal professional environment, Mexico, a country which can be proud of important recent developments in various areas, and is now facing the enormous challenge of global competition, but is still far behind in terms of having reached an even and top quality level on its information services. If this statement applies to a good percentage of our national library picture -with very good exceptions of libraries belonging to the different sectors, mostly special and in academia, it is much more so when dealing with a holistic approach to information, this is information management. The resources, the services provided on the side of the supply, are weak; this weakness is also acute on the demand side, which might be the result of our poorly information conscious entrepreneurs in whatever setting.

For writing this paper I went to a number of articles which deal with the subject of my attention. Regretfully and with all the consequences that this situation brings along, I found that the point I have made concerning the Mexican reality is common to many other countries, particularly to the so called "developing".

This crude reality proves, undoubtedly, that we do not fully understand, nor are we knowledgeable about how to take full advantage of the vastness and richness of the information which surround us, which leads us to the first step: the need to strengthen or develop the various elements of the information infrastructure all over the country.

Concerning Mexico, I could mention that those institutions which require information and are real information users -and certainly the number is low- have channeled their

demands in various ways for fulfilling their needs, either within their own organization, or eventually relying on external information services. Internally one can find a number of solutions or alternatives: they might be operating an information unit, which mostly performs the functions of a special library, although the positions are not necessarily held by librarians: there might be systems or computer departments, mostly responsible for administrative tasks, and for systems design, but which seldom keep a close relationship with the information unit; other departments or areas in a given enterprise might rely on any of the areas mentioned above, or on their own capabilities. These various alternatives offer a fragmented approach and certainly show the lack of consciousness about the benefit of a total approach to the management of information.

There are also external alternatives for supporting enterprises in solving their information needs, such as organizations which offer information and or consultancy services to enterprises, government and service sectors. This is the role INFOTEC, the institution I work for, has been playing for more than 15 years. Nevertheless it is worth saying that again, due to the weak informatization consciousness of a high percentage of our enterprises, first, it is not easy to promote and sell information and or consultancy services; second, top and medium level executives, -with good exceptions- are still reluctant to pay for these services; and finally, just to mention one more limitation, being such a large and centralized country, the number of potential information users is larger than the present ones. These considerations do reflect that there is still a lot to do in convincing executives of the value/benefit of the use of information and, of course in setting up high quality information services which among other functions, will also play a role in promoting and therefore enlarging the number of information addicts.

## INFORMATION EDUCATIONAL PROGRAMS IN MEXICO

I went on this explanation because the demand side, as it has been described, hardly makes an impact on our formal educational library/information 5 B.A. and 3 Master programs and therefore their main emphasis is still, as it has been for years, mostly on academic and 70Hspecial libraries. These programs have been incorporating some "new hints", but on the whole -to my feeling- there is a gap between them, the advances and changes taking place in the information world, and the emerging demands of our enterprises and service institutions. Therefore our programs seem not to be attractive to people with backgrounds other than the traditional group entering the library profession.

As for continuous education programs (seminars, workshops, short courses) the situation is slightly different. In the last few years they have been covering topics which certainly are in the front line of the present information development: information technology, telecommunications, systems design, networking, user services and many more, but they have not yet reached large audiences, either because of the admission requirements, or because people from the various states throughout the country can not easily leave their daily activities for attending these programs.

Nevertheless the basic questions still remain as to whether we need information professionals with backgrounds other than librarianship: whether we need specialization in some areas -and in which: whether there is actually a demand for an information professional that would be prepared to act as an information manager, are still issues worth researching. We have not yet carried out market studies (8) that would help us in justifying the need for this type of professionals, and if so, in quantifying the potential

demand and consequently, in defining the orientation that should be given to our educational programs.

In Mexico we need to come up with proposals and solutions emerging not only from the professional library group; direct consideration to and involvement from other professionals engaged in information services and activities outside the library setting, as well as the participation of actual and potential users, the demand side, is necessary, so as to determine the needs or expectations of employers which will be the basis for structuring the programs needed not only to solve our present information needs, but also to form the professionals that might act as real managers of information in the coming future.

The information managers should assume complex tasks: they "...are called upon to deal not only with the ever-changing technology and user requirements, but also with emerging policy and research needs. They have to find ways to access the value of information to the social system, the community, the organization, the individual. The managers of information who recognize and provide access to information flows outside of traditional systems have to be innovators with a vision" (9).

**FINAL COMMENTS:**

How to bring down to earth in countries like Mexico the development of educational programs on information that would assure that there is the new professional demanded by a changing and competitive world?

My personal concern is not so much for the integration of programs once they have been justified and the objectives defined.

The curricula being important come in a second place since there are a number of experiences in most advanced countries or in countries whose economies and stage of development are similar to ours, that can be adapted or eventually adopted, and experts who could certainly offer professional support.

I would first look for strategies on how to take the first steps and in what direction, in order to promote and consolidate the informatization process of our various entities, and pull the demand. I would hope that this pressure will lead the information professionals specialized in various areas, to join efforts and together analyze and determine the possible alternatives -academic and continuous education programs- to prepare the professionals capable of performing the so diverse tasks and undertake the responsibilities, including, of course the one of management, required to respond to the demands and needs of our institutional and national environments.

And one word concerning the curriculum -it should be a direct response to the characteristics of our entities. Among the topics to be covered, those which to my understanding require special attention are: management, marketing issues, services

and methodologies on the analysis & synthesis of information, so as to assure that this professional is capable of giving to these services the added value required by the users. In general, the orientation of our programs should convey a proactive emphasis - a feature which is certainly lacking from our present library curricula. Other issues to be covered- more technical or technological in nature- are certainly integrated in programs already offered at various institutes or educational institutions of which we must be aware and well informed. The decision on what to offer and the alternatives for doing so, will be again in response to our needs. For what has been said, the broad areas that our curricula should cover, referred to in a number of documents, -one of them, the one by Páez (10) are:

- 1) information services, resources and systems management,
- 2) information technology,
- 3) information analysis processes,
- 4) production of information products and services.

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