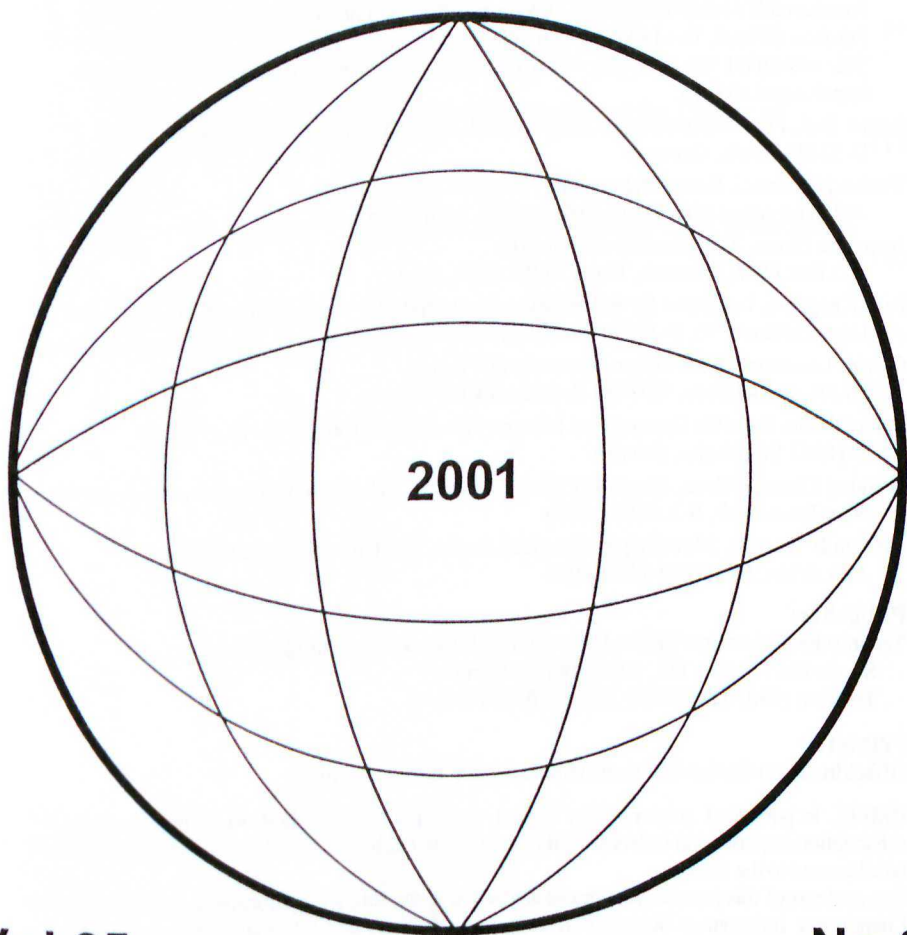


INSPEL



Vol.35

No.2

Official Organ of the IFLA Division of Special Libraries

INTERNATIONAL JOURNAL OF SPECIAL LIBRARIES
REVUE INTERNATIONALE DES BIBLIOTHEQUES SPECIALISEES
МЕЖДУНАРОДНЫЙ ЖУРНАЛ СПЕЦИАЛЬНЫХ БИБЛИОТЕК
INTERNATIONALE ZEITSCHRIFT FÜR SPEZIALBIBLIOTHEKEN
REVISTA INTERNACIONAL PARA BIBLIOTECAS ESPECIALES

Published in cooperation with the German Special Libraries Association
(Arbeitsgemeinschaft der Spezialbibliotheken - ASpB)

Editorial Board:

Hans-Christoph Hobohm (Editor in chief)

Fachbereich Archiv-Bibliothek-Dokumentation, Fachhochschule Potsdam,
PO-Box 600608, D-14406 Potsdam, Germany.

Tel.: +49 (0)331 580 1514, Fax: +49 (0)331 580 1599; e-mail: Hobohm@FH-Potsdam.de
<http://inspel.ifla.org>

Rafael Ball, Forschungszentrum Jülich GmbH, Zentralbibliothek, Leo-Brandt-Strasse
D-52425 Jülich, Germany

Ysabel Bertolucci, Kaiser Permanente Medical Center, Library
280 West MacArthur Blvd., Oakland, CA 94611, USA

Jeannette Dixon, The Museum of Fine Arts
P.O.Box 6826, Houston, Texas 77265-6826, USA

Paul Kaegbein, Lehrstuhl für Bibliothekswissenschaft der Universität zu Köln,
Universitätsstr. 33, D-50931 Köln, Germany

Olivier Loiseaux, Bibliothèque Nationale de France
58 rue de Richelieu, F-75084 Paris Cedex 02, France

Lena Olsson, Swedish Government Library, Government Central Services Office
S-10333 Stockholm, Sweden

Myoung Chung Wilson, Alexander Library, Rutgers - The State University of New Jersey,
New Brunswick, N.J. 08903, USA

Patricia B. Yocum, 3026 Shapiro Science Library, The University of Michigan
Ann Arbor, MI 48109-1185, USA

Publisher:

Technische Universität Berlin, Universitätsbibliothek, Abt. Publikationen,
Straße des 17. Juni 135, 10623 Berlin, Germany
Telefon: (030) 314-23980, Fax: (030) 314-24741

Printer:

Offsetdruckerei Gerhard Weinert GmbH, 12099 Berlin, Germany

INSPEL is published quarterly. The annual subscription rate is DM 80,00 plus postage. All subscription inquiries and orders should be sent to the Publisher. All other correspondence should be addressed to the Editor.

The contents of this journal are indexed/abstracted in the following information services: Library Literature & Information Science Full Text, LISA (Library and Information Science Abstracts), ECONIS (Economics Information System), IBZ (Internationale Bibliographie der Zeitschriftenliteratur), INFODATA (Informationswissenschaft und -praxis).

© INSPEL and contributors

ISSN 0019-0217

Contents:

Marga Coing: Effective Communication: An essential tool to cope with the challenge of Technology Change - the German Bundestag Library Example.	75	AR
Jean-Philippe Accart: „Business Intelligence: A New Challenge for Librarians?“	85	AR
Jane M. Wu: Pangaea Central as the Coming Global Access to Legal, Scientific and Technical Information Through the Resource Networks of Intergovern- mental Organisations.	94	AR
Zana Bufi: The Challenge of Organization the Research Service and the Library of Albanian Assembly.	113	R
Ch'ng Kim See: Government Information and Information about Governments in Southeast Asia.	120	R
Patrick McGlamery: Issues of Authenticity of Spatial Data.	137	R

EFFECTIVE COMMUNICATION: AN ESSENTIAL TOOL TO COPE WITH THE CHALLENGE OF TECHNOLOGICAL CHANGE – THE GERMAN BUNDESTAG LIBRARY EXAMPLE*

By Marga Coing

Abstract: For a library to function effectively it is essential that it fosters an open management style, which encourages communication of ideas and objectives both within the library itself, and hopefully by example, in other elements in the overall administration of which the library is a part. This paper describes the improvement in morale, efficiency and flexibility in the Bundestag library from such an approach, with specific reference to the author's experiences in commissioning and installing an automated library system within a very short period.

1. Introduction

Information-gathering organisations such as parliamentary libraries, play a key role in the decision-making processes of parliaments. For opposition parties in particular, which often have a much harder time gaining access to adequate information than the governing parties, the parliamentary library constitutes a crucially important information source on which to base challenges to the government's policies.

It follows that such libraries must perform effectively. The hypothesis on which this paper is based, is that the more effectively libraries manage information, the greater the influence they will also have on their clientele and upon their administrative environment. Information service providers work better if their function and value is fully recognised by their colleagues, so it is important to create and maintain appropriate conditions to encourage this - not just practical conditions, but also the intellectual and managerial environment in which they fulfil their functions.

2. Overview of the Bundestag library

The Bundestag library has around 100 employees; statistically 87.5 of them have full-time positions. The Chief Librarian oversees administration, and coordinates

* 65th IFLA Council and General Conference Bangkok, Thailand, August 20 - August 28, 1999, section on Library and Research Services for Parliaments

policies regarding all personnel matters with the Head of the Budget Department as well as with the relevant Head of Personnel. The library does not have its own IT Section.

The library, as an administrative unit, is part of the Subdirectorate for Documentation comprising four units other than the library, which together have around 65 employees, the majority of them in intermediate and upper intermediate clerical service. In terms of personnel, the library constitutes the largest unit by far. It does not conform to the administrative structure of other units. This applies to the way it works and also to personnel structures and management techniques. It should be noted, in particular, that library personnel do not have experience in administration, being better characterised as a team of specialists. However there are similarities with other units in the Subdirectorate for Documentation - all but one are involved with the acquisition of information. On the other hand, they are relatively small, so the introduction of new technologies and the coordination of certain workflows can take place with a great deal less disruption. It should also be taken into account that the other units work almost exclusively for the Bundestag administration. The Bundestag library, also provides information-related services outside the parliament. This follows automatically from the fact that a library with such a large and valuable collection should make its resources available to a larger circle of users.

This essential difference in focus has the potential to create difficulties in the relationship between the Chief Librarian and the Head of the Subdirectorate for Documentation. The Chief Librarian needs freedom to work differently to the other units but should be included in the general planning of parliamentary work. This pre-supposes a great deal of understanding and a manifest willingness on both sides to communicate.

The Subdirectorate for Documentation is part of the Directorate for Research Services. Research Services is subject to a high level of personnel fluctuation, in that young research assistants begin working for the parliament there and are later transferred internally to other areas, in contrast to the Documentation Subdirectorate, where in some cases the same people have worked for decades. I emphasise this here only because it illustrates to a certain extent the way the library is perceived by other areas of the administration.

3. Introduction of new communication structures in the library

3.1 Section Heads and Chief Librarian

Until 1990, the Bundestag library had a relatively authoritarian management style. The four different Sections, each about 25 employees, worked in comparative

isolation. Responsibility for policies affecting the library as a whole was solely in the hands of the Chief Librarian, and was not discussed with the Section Heads.

An initial phase of modernisation took place from 1990 to 1995, beginning with a weekly briefing of the four Section Heads on all library matters by the Chief Librarian, to facilitate understanding of problems and to formulate the best possible strategy for resolving them. This involved two-way communication between the Chief Librarian and Section Heads - on policies formulated by the German Bundestag administration, and problems arising internally within various Sections. In 90% of the cases a consensus is reached that serves as a basis for joint action. However, after a period of adjustment this much broader basis for decision-making resulted in improved longer-term planning and a higher level of acceptance by library staff of these plans.

In turn, Section Heads provide regular briefings at their levels on the jointly formulated policies, implement solutions to the problems to be dealt with, supervise this process, and ensure that a result is attained. Consequently, when the outcomes are brought back to the management level and are discussed in detail, they can be given full approval with all participants completely aware of the processes involved.

3.2 Special Coordinators

It became quickly apparent that the Chief Librarian would not be able to manage every aspect of computer use, along with general oversight of the library. A new Data Processing Coordinator position was created, directly responsible to the Chief Librarian, to monitor and coordinate automated systems, and handle related technical questions and administrative procedures.

A senior Librarian position was also created within the Chief Librarian's office. The duties of this officer were to supervise staff training for computer system, especially new appointees; to provide technical support at the intermediate and upper intermediate service levels in connection with changes ordered by the Chief Librarian; and in particular, to liaise with the various levels of the intermediate and upper intermediate service. The fact that this staff member was able to speak with relative openness to colleagues at the same level played an important role in this context. It very quickly proved to be the case that through this liaison, these non-management officers also had direct access to the Chief Librarian. This made it possible for the Chief Librarian to intervene rapidly whenever there were signs of dissatisfaction, and to speak with the relevant Section heads in order to eliminate potential problems.

3.3 Working groups - a broader distribution of specialist knowledge and learning processes

A new management style came about to some degree as a result of a complete generational change of personnel within the Bundestag library. In the course of three years the library lost almost all of its management personnel in the higher, upper intermediate, and intermediate services, resulting in a younger generation accepting the challenge of managing the Library in a different way. While there was a desire to preserve as many time-tested traditions as possible in the new environment, in particular experience in dealing with parliamentary needs, 80% of the staff were well below 40 years of age, if not below 30. This predicated a high staff turnover through maternity and child-raising leave, which in Germany can be taken by both men and women. To be able to absorb these constant personnel losses library management needed to broaden as much as possible the operative base.

As a consequence, specialist knowledge could not be concentrated as it was in the past on a few persons in key positions of the various service levels, but rather needed to be distributed to as many people as possible in order to be able to keep pace with modern developments. Based on this situation, several working groups were formed at all levels, e.g. an internal working group on title entry and working groups dealing with special problems such as the entry and processing of audio-visual media, the conversion of old card catalogues, etc..

Various other working groups were formed by senior professional staff members of the library, including a discussion group in which the Chief Librarian directly briefs these groups about current problems in the library, and attempts to bring home demands being made by the parliamentary administration; and working groups on subject indexing and acquisitions.

In the course of time this loosening up of hierarchical structures led to people assuming a larger measure of personal responsibility in all areas of the library and to higher levels of identification with the jobs they were doing. They knew what goals were being worked towards and they were fully included in the process of achieving those goals.

4. Communication with structures external to the library

Concurrent with its own internal reorganisation the library analysed the organisational structures of other subdirectorates. There seemed no valid reason, for instance, why the Press Documentation unit was in the Subdirectorate for Parliamentary Information, while the library, the Parliamentary Archives and the

Subject and Speakers' Index units were in the Subdirectorate for Documentation. The organisation of data processing is concentrated in a central directorate for the entire administration. This continues to have negative effects for certain areas such as the Subject and Speakers' Index and for the library, since the software used there differs greatly from the usual office communications software. The members of the Information Technology Centre Subdirectorate often lack experience in these specialised areas of information processing. As such, it could make a lot of sense to equip these information departments with their own data processing specialists and to separate them from the Information Technology Centre Subdirectorate, or to integrate corresponding specialists from these departments in the Information Technology Centre Subdirectorate to act as channels of communication.

4.1 Difficulties in external communication

It has become apparent that colleagues in different areas of administration within the Bundestag employ different modes of thinking, seemingly based on the different nature of the work they undertake. Some parliamentary administrators tend to react with short-term considerations, whereas for a library the size of that of the Bundestag there is a need to carry out longer-term projects in addition to providing short-term solutions. Long-term strategies need to be developed alongside rapid reactions; staff must be inspired with goals for the future; work processes need to be given long-term structures; and emergent new technologies have to be prepared for and introduced. This difference in philosophy can produce areas of conflict, particularly when long-term strategies are to be developed. The potential for friction and dispute requires constant effort on the part of the Chief Librarian to promote understanding for this different perspective, and to assert appropriate professional librarianship interests.

4.2 Difficulties due to discrete management styles and interference caused by political circumstances

The limits of an open, communicative management style become apparent very quickly in the communication process with the hierarchies above the library. Whether change is resisted because of rigid mind-sets, or because of its political implications and subsequent unrest in the respective units, is hard to gauge.

An increasing cause of difficulty is that, to a large extent, the library today can only fulfil its function as a provider of information with the help of state-of-the-art technologies. This means that the head of the directorate and the head of the subdirectorate to which the library is assigned, should be addressing these technology requirements. In fact there seems to be a determined reluctance to do this, so it is essential to promote the cause of the library among relevant

departments and members of parliament serving on the appropriate commissions of the Council of Elders. Unfortunately the members of the Budget Committee are often not dependent on information from the library, and hence are not able to appreciate at a user level, the worth of this valuable institution.

4.3 Disruption due to elections and their parliamentary effects

Attempts to engender a unified approach to management becomes all the more difficult when political change brings concomitant alteration to the higher positions of the administrative hierarchy. In this case the head of the library has to recommence information campaigns with new appointees, with no certainty of a positive outcome.

The same applies with regard to cooperation with the commissions of the Council of Elders responsible for the affairs of the library. The Council of Elders Commission on Internal Affairs, is concerned with the opening hours of the library, personnel matters, or matter regarding equipment with software, while the Council of Elders Commission on Information and Communication has responsibility for matters concerning data processing. If, on the other hand, questions are involved that have to do with a new building, such as the one currently being built in Berlin, they have to be addressed to the Council of Elders Commission on Buildings. This fragmentation of authority and interests makes it difficult to gain acceptance for some of the library's objectives, and doesn't help to enhance cooperative action with department heads. Normally a department head has to deal with one commission. Since the Commission of the Council of Elders for Affairs of the Library, the Archive and Documentation fell victim to downsizing of the parliament administration after the 12th legislative term, the Chief Librarian is faced with having to deal with three commissions.

5. Outcomes from the new communicative management philosophy

The first phase of structural change in the library led to the planning of a number of major projects.

The principal project centred around automation of all library procedures. It was intended that the new system should provide a better evaluation of existing library resources for the user, faster information retrieval for members of parliament by reducing processing times, and a user interface facilitating information searches by users.

Other goals were:

Data contained in the old card catalogue was to be transferred to computer format, so that members of parliament would be able to search this resource electronically;

a de-acidification process was to be carried out in order to preserve library resources of national value threatened by paper decay; the library's large collection of duplicates was to be dispersed; revival of the practice of publishing bibliographies on issues of current importance; members of parliament to have access to the library's hardcopy products as well as online products; reform of the thesaurus; plans for new buildings; plans for the move to Berlin.

Further crucial measures were imposed on the library in the context of personnel downsizing and budget cuts. They included: 50 % Reduction in the number of foreign periodical subscriptions; assessment of the Library's entire periodical intake to determine their value to the institution. This resulted in the cancellation of around 2,500 periodicals in the period 1991 to 1996, resulting in a net figure of less than 10,000 current titles. Most of these projects have been completed.

Completing projects such as these in the course of a few years is only possible if there is a consensus at all levels of administration on the importance of getting the job done. This presupposes that the objectives are known, that staff members have been informed, and that they have had a chance to internalise these goals to make them their own. This became very clear with the introduction of the new library software, an account of which follows, demonstrating that improved communication is a prerequisite for permanent learning with and from one another.

5.1 Introduction of new library software as an example of a "learning organisation"

On 1 January 1987 the Bundestag library introduced the use of computerised systems. This system was outdated in 1997. In 1998 an "off-the-shelf" system, called ADIS/BMS by a Berlin firm was implemented. Its enormous flexibility catered for nearly every specific aspect of a given library's operations. To optimise this feature it was extremely important to ensure cooperation between librarians and the supplier. In this context the ability of the persons involved to understand each other is crucially important. This was where the various library working-groups played an invaluable role, both gaining and imparting knowledge through open communication.

5.2 Communication in the workplace creates flexibility

In addition to careful preparatory work, a key factor for the success of such a project is flexibility. It was an advantage that the system specifications were formulated by library staff operating in numerous small working groups. So many staff from virtually every level of the library were involved in this process, that there was always someone available who understood problems arising and who could provide expert advice. However management of the project lay in the hands of just a few staff members.

5.3 Communication leads to quality management

The specification brief was characterised by a mixture of general requirements laid down by the library management and individual requirements. The Data Processing Coordinator and his assistant outlined general ideas which were further developed by different working groups until they reached the implementation stage. These could be described as quality assurance groups. The same working groups were also involved in the process of software selection. Because the library had very detailed requirements for the final product, we were able to ask very specific questions during presentations by the various companies, and to subject individual software products to precise assessment and field testing over a period of several weeks. Although very time-consuming, this approach proved to be very successful in the end, with the library purchasing the product that came closest to satisfying its requirements. Even in moments of major frustration, staff motivation was always very high and personal initiative always present. Many members of the staff were totally committed to ensuring a smooth transition to the new software, which is a desirable prerequisite to the success of a project of this kind.

5.4 Communication and outsourcing

Since the Bundestag library does not have any data processing resources of its own, it was clear from the outset that any new library system and the accompanying computer resources would have to be purchased. It was also necessary to choose a company to supervise installation. From the experience gained through this exercise it is safe to say that the appropriate contractor should also be chosen on the basis of having personnel who are able to speak the same language as library staff (in other words, having a good knowledge of library practice and procedures), in order to ensure smooth cooperation.

Taking into consideration the fact that in the course of introducing the system, nearly all work-flows were monitored and adjustments made to the new conditions of work, it is indeed remarkable that this enormous task was completed in only one year. Without the prior introduction of new work methods; without the innovative open management structures that existed in the library; without an enormous training effort; and without the high level of staff motivation, it would not have been possible to complete this process.

The introduction of the new software in the library confirmed the virtues of cooperative communication. The library proved that it is capable of responding with extraordinary flexibility to the introduction of new technologies. It is very important that this message is recognised by the administrative hierarchies in the Bundestag, so that this new and powerful instrument 'library' can be brought to bear, and its effects felt outside the library itself. In times of continuing

technological challenge including especially new information technologies, the library must subject itself to a process of constant change in numerous small steps. It is, as it were, a unit engaged in permanent learning in an ongoing process of development - a fact that enables it to face up to, and deal with, new challenges. This learning process must always be kept in mind at the individual level, and must also be made an integral part of broader, overall strategies. These overall strategies must be as smoothly integrated in parliamentary structures as possible. It is only in this way that the potential of a library can be fully released and the benefits reaped.

6. Conclusion

In concluding let me summarise the theses I have put forward:

- Communication, involving all levels of the administrative hierarchy, is a basic prerequisite for libraries coping with constantly changing technological challenges. The Bundestag experience is that this can be best done internally by forming quality assurance groups and retaining these as permanent learning units, i.e. groups that learn constantly with one another and from one another.
- The importance of the communication process intensifies in circumstances where disturbances to work-flow are most likely to occur. These may include a clash of different work styles, a clash of interests, rivalries among specialists, or the negative inter-relationship between specialists and generalists. In all such situations there must be a degree of autonomy and a willingness not just to listen to the interests of the other side, but to learn, and to accept new ideas and practices. It is only by maintaining communication and flexibility that specialist libraries such as parliamentary libraries, can implement the process of renewal they have initiated.
- The benefits achieved through improved internal communication should be marketed to other administrators within the same hierarchy as the library, becoming a motivating factor for modernisation. It is vitally important that the environment for which the library's products are destined should undergo a parallel transformation. If the process of modernisation being undergone by a library collides with obsolete structures all around it, much of the effect of the modernisation of the library will be lost.
- The willingness to engage in meaningful communication presupposes use of **a common language**, and **a common understanding** of the tasks to be dealt with. Where a project necessitates outsourcing, there is a need to ensure that companies working with the library either already fulfil this requirement, or have the capability to learn what they will need to know, in order to fulfil this requirement. The task of the Chief Librarian in this context is to be aware of

these factors ahead of time and to establish standards of conduct and general conditions in the workplace that will make it possible for library staff to assume an appropriate role in the requisite communication process.

Marga Coing
Deutscher Bundestag
Platz der Republik
D-11011 Berlin
Germany
fax: ++49 1626087
bibliothek@bundestag.de

”BUSINESS INTELLIGENCE: A NEW CHALLENGE FOR LIBRARIANS?”*

By Jean-Philippe Accart

Abstract: Watching for information is an occupation which can be aimed at many fields of activity: competitive business watch, information technology watch, scientific watch, commercial watch, social watch, business strategy watch, current information watch, etc. The operation is a continuous and dynamic process which requires data as it becomes available to the individuals or more specifically to information scientists, with a view to being used by them. It requires a sense of expertise consistent with the topic or nature of the gathered information. Information watch services are different from services provided by librarians in that the course of the event is being anticipated. For instance, business competition is the main trigger of the technology watch process. In the framework of a government service, information watch is performed in order to know of the repercussions of decision-making on public opinion. The information watch process involves a wide range of tools which can be combined altogether: databases specialized in the field of patents, trademarks, corporate files, press releases, etc; reviews of the press and journals, mail-order catalogues, marketing offers, etc; conferences, meetings and forums.

”Business Intelligence: A New Challenge for Librarians?”

« The information watch consists in observing and analyzing the scientific, technical, technological, and economical environment of a company to counteract potential threats and seize growth opportunities.

It especially aims at identifying information as it becomes available to make good use of it within a network of experts.”

(JAKOBIAK F., *Pratique de la veille technologique*, Paris, Editions d'Organisation, 1990)

Information at the centre of the watch process

The information watch is a process that involves networks of individuals and technologies. A « watch culture » should be part of the life of any company. In the United States, the concept is known as «Business Intelligence». At the core of watch concerns is information basically.

* Paper presented at the biannual conference of the German Special Library Association (ASpB): «Spezialbibliotheken heute – Wettbewerb und Kooperation» 06.-09.03.2001 in Hannover, Germany

Ninety per cent of the useful information is easily accessible via databases, scientific and technical publications, journals, promotional business brochures, etc via the informal exchange of ideas between various experts. Such information is all the more accessible as electronic information networks grow. The difficulty of financing business plans is increased as technologies become more sophisticated. The right to error is not allowed in the adoption of a business plan and subsequent implementation of a strategy. This is rendered more complex with the increase in business competition. The decision-makers must be meticulous and keep a watchful eye on the examination of business plans before making decisions. This *beforehand* requires an expertise in gathering and processing technological information (including competitive businesses whenever possible). *Information watch as an occupation is becoming a mandatory strategic objective in a range of activities which may be huge.*

The role of information and watch in a company	
FLOW OF CURRENT INFORMATION	WATCH
Sporadic needs	Must be considered in terms of duration/delay as many unknowns are often encountered in the search for information
Unique origin/source	Multiple origins/sources: gathering of the available data once the nature of the watch has been determined
Gives information about the present time	Anticipate information
Rough information processing	Elaborate information processing
Functional nature	Strategic nature

At the centre of the information watch: the business strategy

To establish corporate information watch systems, 5 aspects need answering:

- information field;
- information sources;
- value of the information;
- participants involved;
- modes of conveying information.

The key object of the information watch must be searched for. To get the right information, the exact nature of the search must be determined. A certain number of priority trends in a variety of domains must be chosen. The concept of «vertical watch» restricted to the field of business activity must be combined with the

«horizontal watch» concept (matching several fields of activity). Then, a good information watch *approach stems from the assessment of the risks involved in making certain choices*. The watch does not provide raw facts but reliable, current, and analyzed data presenting the opportunities, risks and issues at stake. The decision-makers will partly rely on this information to formulate the business strategy. *The information watch may well go beyond the encompassing view of things or the multidisciplinary state-of-the-art and claim a twofold skill: both the skill of a librarian/information scientist and the skill of an expert in a given specialty.*

To thoroughly assess the best investigation field to perform the information watch requires that the specificity of the company be determined by the leading authorities:

- *orientation and strategy of the company*: data which have to be watched and managed as a priority may then come out more clearly in specific fields (products, guidelines, technologies, marketplaces, competitive businesses), just as in the characteristics of the possible origin/source of information: fresh news, experts' sources.
- *the sum total of the know-how specific to the industry* (in techniques, marketing and management)
- *merchandized products as a whole, corresponding and competitive markets, and distribution channels.*

Incite the management team to precisely formulate the strategy which implies that the decision-makers have to clearly expose the objectives of the watch to their personnel

Identifying the source persons

Get information outside the usual body of experience and competence of the company often consists in identifying the source persons via the address books of the decision-makers and many other networks of public relations. These books are supplied with information gathered at conferences, seminars, forums which are attended by the managerial staff. The experts met there may help in giving valuable advice to others or showing the way to another type of information sources. The documentation service (when in charge of the watch) looks out for the experts in reviewing press releases and minutes from symposiums, questioning specific databases, information networks and taking part in newsgroups on the Internet. Once the experts are identified, the decision-makers are informed of conferences and forthcoming meetings.

Difficulties encountered while performing the watch

The aim is to get to know where the interesting grey information is, to learn how to identify, crosscheck and validate it. (...) One must be able to:

- *find the information,*
- *and detect the part of truth which it contains.*

(BERNAT J.P., *Les Métiers de la documentation*, Paris, Ed. d'Organisation, 1998, p. 31)

Decision-makers run short of time and searches performed in the information watch process must be related to well-defined objectives so as not to be diluted in a mass of data. The amount of functional information necessary for the management of companies sometimes takes precedence over certain prospects. The shortage of time as regards analysis of data is another pitfall.

The relevance and reliability of published and unpublished data is carefully checked out and the results sorted. The documentation service in charge of the information watch has to keep a constant watchful eye on the course of events and stay tuned in to decision-makers.

These various aspects show that the implementation of an information watch is not done spontaneously by the company. Most importantly, it corresponds to a full-time occupation that requires a rigorous and structured approach.

The person in charge of the watch

Michael E. Porter, teacher at the Harvard Business School epitomizes the philosophical outlook of the watch:

“Give the right piece of information to the right person at the right time to make the right decision”.

The person in charge of the information watch, be it a librarian or another person, is not the only one to collect information useful for the company. Its role as a moderator consists in establishing networks in urging each employee in the company to trace back/find the information, collect and analyze (whenever possible) every part of it. The information provided to the chief executive is processed and should be as reliable as possible.

The art of performing the information watch is to identify and incorporate the right piece of information among an ever-increasing bulk of data, a great variety of business activities that worldwide exchanges make complex. In addition, the life cycle of products grows shorter, competition is fiercer and demand changes more and more rapidly.

To keep people informed at the right moment is a priority for the watch specialist who must grasp the news as it comes out, follow its evolution and keep a steady pace in performing the information watch (even anticipate its developments). The facts show that this watchfulness is a means of access to greater and more successful sources of information or still unpublished data. Information of a strategic importance may result from contacts with experts in a given field.

The person who performs the information watch is not limited to the corporate address books, nor to the boundaries of published information. The watch specialist uses a whole lot of instruments: databases, specialized periodicals of general interest, patents, manuals and publications, business brochures, etc and orally-transmitted information likely to emerge from all categories of experts (in technological nodes, corporate trade-unions, universities, industries, etc).

The watch specialist handles data files concerning experts with the following information: identification, domain(s), level of skill, nature of the ongoing searches. Contacts and regular exchanges with experts allow to check out and validate the information. Meetings/interviews also make it possible to take minutes.

Selective dissemination of information (SDI)

The selective dissemination of information is a type of watch. However, if it meets the criterion of permanence in the information watch process, it does not take into account certain basic criteria in the search performed:

- selection of data by the user in order to make a decision on an individual basis;
- consequences of the facts set out about the management of activities in a company are not considered;
- risks and stakes related to the company;
- orally transmitted information is not retained.

This type of information watch is adapted to a logic of supply corresponding to the current interests of the company but not to the development of a prospective strategy.

Methods for the watch

Functional analysis (i.e. the analysis of the function of the technology as target of the watch), the strategic analysis, marketing, evaluation of risks, are tools elaborated by the watch specialists. These tools allow to stratify/structure information. The watch specialist endeavours to make the information to be conveyed attractive. Beyond the synthetical analysis that is made, it is necessary to elaborate blueprints and tables to make the text format richer.

Information watch and the Intranet

The information watch specialists within a company have to exchange ideas. The creation of a specific « information watch » website on the Intranet helps them in that respect. The information gathered by the various information sensors and watch specialists in the company are accessible in a limited way (e.g. the Intranet of the Lagardère combine testifies to this).

The participants in the watch

The prospective aspect of the information watch may induce a sense of data privacy when being initiated. Only a few fellow workers are contacted to become information sensors, notably through a network of contacts and potential sources. They convey every information gathered to the analysts of the watch department in the form of minutes, interviews or quizzes. Such elements promote the information watch process, and when combined with others allow to check out the information gathered and help the decision-makers to formulate the best strategy possible for the company. The concept of professional hierarchy, the type of activity, the understanding of the concept of information watch determine the modalities of communication with the potential users of the information watch.

The expectations of information watch users

Decision-makers in information watch departments show all diverse interests consistent with various needs when information watch is at stake. It is therefore necessary to devise a system of information applied to the watch whereby individual exchanges can take precedence over documents:

- The managerial staff expects to be given a synthesis of all informative elements which will serve as a basis to its strategy/action programme.
- The operational departments need a more extensive base/background presenting the facts, data and lines of argument.
- The field specialists need to identify their scope of activities within the business plan as a whole and rely on precise information as regards their own business assignments.

Watch and quality assessment: comparable approaches

The information watch system of a company mandates the presence of a person in charge. The watch specialist is somehow a conductor with a good knowledge of the company and a good handling of the system. This person can evaluate the costs and efficacy of such a system for the company. The information watch approach is comparable to that undertaken since the last decade in the field of quality scoring. Previously, the concept of quality scoring represented a stake and an industrial reality. However, the quality business (which was the key objective of so many industries) did only exist implicitly. Today the quality business is clearly a matter

for the individual. To set it up means to integrate it within a professional, structured, and formalized background with a quality analyst to get it going -- the quality analyst using proven and reproducible methods. Likewise if the company tends to spontaneously perform the information watch, it is presently essential to make this approach formal to optimize it in terms of efficacy. The information watch specialist in a company must show similar skills to the ones of a quality analyst, that is *to lead and motivate employees*.

From the watch to business intelligence (information in economics)

The contemporary industries are subject to the hazards of technology, economics, finance, and politics, etc. However, the person in charge of the watch cannot watch everything. Priorities must be taken based on the corporate strategy. Indeed, the corporate strategy commands a specific know-how which must be preserved and reinforced with an increased watch of the corresponding technologies. It is the strategy which allows to identify which products to use and which markets to watch as a priority.

Additionally to the sense of watchfulness, the information watch specialist is keen on the processing of the gathered information. Easily understandable, the information conveyed to the chief executives acts as a *guideline/recommendation* to launch a project. It can lead to re-evaluate the strategy of the company. Not only is the watch addressed to the evolution in sciences and technologies, but also it *focuses on solving daily industrial problems* as it takes into account any factors likely to have an impact on business activities.

As a result, the concept of *business intelligence* increasingly tends to take over the more limited concept of competitive business or commercial watch. Business intelligence is defined as the combination of coordinated steps of research, processing, dissemination, and protection of the information useful to economical participants.

Industries and the approach of business intelligence

Coordinated methods of information management are tools of strategic efficacy. The managerial staff must make good use of the information watch which mobilizes a whole lot of skills to promote strategy. This necessitates that the employees be trained, the organization and structuring of the company memory be transformed. A project manager is appointed: either having a general knowledge or being a specialist, that person must have a perfect knowledge of the company and play the role of network moderator. The useful information is formalized in accordance with management protocols.

Business intelligence practice must allow to identify:

- *strategic information* in order to build competitive strategic approaches;
- *tactical information*;
- *competitive information* (with the use of benchmarking);
- *commercial information* (marketplaces/customers) providing the best service to the customer;
- *social information* allowing for the mobilization of all inner energies and resources.

References

CLERC P., *Intelligence économique*, Rapport mondial sur l'information 1997-1998, Paris, UNESCO, 1998.

COURTIAL J.P., *Introduction à la scientométrie : de la bibliométrie à la veille technologique*, Paris, Anthropos, 1990.

DASSA F., "L'utilisation des banques de données pour la veille technologique : l'exemple d'un groupe industriel", *Documentaliste, sciences de l'information*, vol.28, n°1, p.11, 1991, pp.8-18.

DEGOU P., "L'information scientifique et économique (ISTE) pour l'entreprise", *Documentaliste, sciences de l'information*, vol.27, n°1, 1990, p.11.

DESVAL H., DOU H., *La Veille technologique : l'information scientifique, technique et industrielle*, Paris, Dunod, 1992.

Intelligence économique et stratégie des entreprises, Rapport du groupe de travail présidé par Henri MARTRE, Commissariat général du Plan, Paris, La Documentation française, 1994.

JAKOBIAK F., *Exemples commentés de veille technologique*, Paris, Editions d'Organisation, 1992.

JAKOBIAK F., *Pratique de la veille technologique*, Paris, Ed. d'Organisation, 1990.

MARTINET B., RIBAUT J. M., *La Veille technologique, concurrentielle et commerciale : sources, méthodologie, organisation*, Paris, Ed. d'Organisation, 1988.

OBERSON P., *L'Internet et l'intelligence économique*, Paris, Ed. d'Organisation, 1997.

WERNER E., DEGOUL P., "La veille technologique. Un nouveau métier pour l'entreprise", *La Recherche*, oct. 1994, vol.25, n°269, pp.1068-77.

Jean-Philippe Accart
Département Information-Communication
IUT 2 - Université Pierre Mendès-France - Grenoble 2
Place Doyen Gosse
38000 Grenoble
France
jean-philippe.accart@iut2.upmf-grenoble.fr

PANGAEA CENTRAL AS THE COMING GLOBAL ACCESS TO LEGAL, SCIENTIFIC AND TECHNICAL INFORMATION THROUGH THE RESOURCE NETWORKS OF INTERGOVERNMENTAL ORGANISATIONS*

By Jane M. Wu

Introduction

From the perspective of the year 2000, we can review the important trends of the past century and make some predictions about the future. Globalisation of trade, the growth of multinational enterprises, partnerships among nations, such as the European Union, and the growing importance of nongovernmental and intergovernmental organisations are realities, which evolved over the past century. The world has started on this course, and followed it through the decades, undergoing in the process an enormous transformation. Concurrent with this sociological transformation, information collection and dissemination have been revolutionised. In this paper, some of the major intergovernmental organisations, the United Nations programmes, are examined for major information trends. With specific concentration upon the Food and Agriculture Organization (FAO), some predictions are made as to changes and trends in information dissemination, which the world, in the 21st century will undergo.

Intergovernmental Information Resources -The United Nations System

The United Nations (UN) and its specialised agencies which constitute the UN system continue to foster global dialogue and development and to work for human rights, justice and peace. To achieve their respective objectives, huge amounts of socio-economic and technical information collections and resources have been developed by each of the UN agencies and indeed by every unit of the United Nations itself. This information is collected and published in vast numbers of no-frills publications, in technical series and reports, many of which are automatically considered grey literature. Although these publications may be deposited and filed in international document collections in libraries around the world, because of their quantity and format or appearance, the incredible richness of their contents may

* 65th IFLA Council and General Conference, Bangkok, Thailand, August 20 - August 28, 1999 –
Section: Government Information and Official Publications

remain largely undiscovered. Technology is now helping to unravel the mystery and contents of United Nations and agency documents are being indexed and/or presented electronically in full text to the world. This process will undoubtedly continue to evolve with technology because, as will be seen, the essence of the United Nations is built upon a solid foundation, that of international consensus.

The UN system is sustainable and adaptable because international dialogue and consensus are built into the structure of the United Nations system. The Economic and Social Council, under the overall authority of the General Assembly (made up of representatives of all 188-member nations of the UN), coordinates the economic and social work of the United Nations and the UN family. "As the central forum for discussing international economic and social issues and for formulating policy recommendations, the Council plays a key role in fostering international cooperation for development. It also consults with non-governmental organizations (NGOs), thereby maintaining a vital link between the United Nations and civil society. The Council has 54 members, elected by the General Assembly for three-year terms. It meets throughout the year and holds a major session in July, during which a special meeting of Ministers discusses major economic and social issues. Beginning in 1998, the Council expanded its discussions to include humanitarian themes." [<http://www.un.org/Overview/brief.html>]

The governing bodies of the UN, established by its founding Charter, work with dozens of other related specialised agencies, funds and programmes, the UN family of organisations, to provide an increasingly cohesive yet diverse programme of action in the fields of peace and security, humanitarian assistance, human rights and economic and social development. The specialised agencies themselves work in areas as diverse as health, finance, agriculture, civil aviation and telecommunications but may all be identified for specific roles they play in providing humanitarian assistance, in development, and in assistance for development. All activities are documented and reported in official reports or technical studies.

Three fourths of the world's people live in developing countries, and 1.3 billion are living in abject poverty. While the world's 24 richest countries taken together have a per capita income of \$23,420, the 49 poorest countries have a per capita income of \$360 - a ratio of 65 to 1. This gap has been growing wider in recent years, and its closing is one of the fundamental challenges facing the world today. The General Assembly has stressed the need to reshape international economic relations so developing countries can take their just place in the world economy. In a series of ten-year International Development Strategies adopted since 1961, the Assembly has recommended measures to reduce the gap between rich and poor

countries. A round of world conferences has promoted practical ways of solving global problems, by focusing on environment and development (1992), human rights (1993), population and development (1994), social development (1995), the advancement of women (1995), human settlements (1996) and food security (1996). The UN and its agencies are now working with Member States to put into practice the decisions taken at these conferences. Each Conference, past and present prevailing situations and all follow-ups are completely documented and reported.

Development is an activity whereby industry is encouraged to counteract deprived conditions. Assistance for development means providing funding for specific activities or projects, which will stimulate growth or help to solve problems, which prevent growth. Underpinning many of the UN activities is the principle of avoidance of war through social action and the premise that lasting world peace can be realised only through social and economic development for all peoples of the world. This relationship is recognised by the UN Charter, [United Nations website. <http://www.un.org>], which assigns to the UN, as one of its main functions, the promotion of higher standards of living, full employment and economic and social progress. Thus a major part of the UN budget and personnel is allocated to numerous programmes aimed at achieving a better life for people everywhere.

Humanitarian assistance is that aid provided to individuals and communities, sometimes-entire nations, in the face of disaster, to assist in basic survival. When countries are stricken by war, famine or natural disaster, specific parts of the United Nations (UN) and its agencies step in to provide humanitarian assistance. Refugees from war zones come under the care of the Office of the United Nations (UN) High Commissioner for Refugees (UNHCR). UNHCR has a special defined role and is responsible for the protection and assistance of over 21 million people around the world who have fled war or persecution, seeking at the same time durable solutions to their plight. In early 1999, UNHCR's major operations were in South Eastern Europe where 800,000 refugees escaped from Kosovo to Albania and the former Yugoslav Republic, resettling in Kosovo again within a four month period. Later in the year Chechnya and East Timor were the most serious emergencies while many other troubled spots such as Sierra Leone, Burundi and Afghanistan required ongoing care.

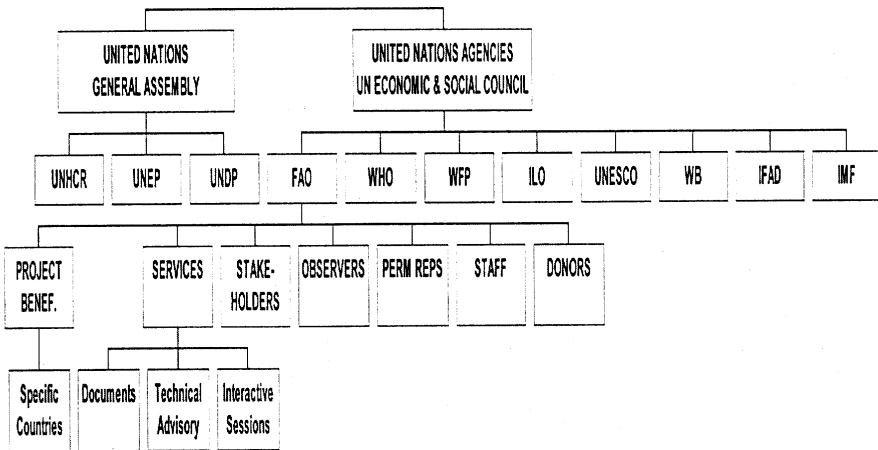
A number of programmes collaborate to further the UN's economic and social mandate. In the forefront of efforts to bring about social and economic progress is the UN Development Programme (UNDP). The UN's largest multilateral provider of grants for sustainable human development, it has offices in 132 countries and

from them works in 170 countries and territories, to facilitate technical co-operation. (UNDP website <http://www.undp.org/info>]. The UN Environment Programme (UNEP) works to encourage sound environmental practices everywhere. "To provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations." [UNEP website <http://www.unep.org>]

Figure 1 shows some of the major agencies and the above-noted relationship to the General Assembly and Council. As the roles and functions are described and it is important for the reader to recall that there is transparency. Throughout each process, there are numerous primary information products, because each process, each country, the conditions, and the work are completely described and documented and made evident to the world's national and inter-governmental bodies as part of the intergovernmental management process.

Figure 1

THE UNITED NATIONS SYSTEM



Source: Information derived from UN website. <http://www.un.org> and FAO website <http://www.fao.org>.

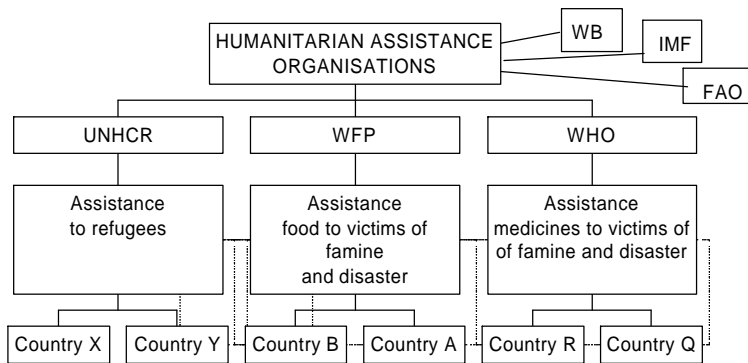
Discussed at greater length later in this paper, the FAO, through its field networks and global warning system detects potential emergencies and contacts the appropriate agencies. When the situation is extreme, the FAO may also be called upon by member governments to assist, but normally FAO's role in emergencies is

to help to rebuild the agriculture infrastructure once conditions have begun to return to normal. The World Health Organization, (WHO), is a specialised Organization and it co-ordinates programmes aimed at solving health problems and the attainment by all people of the highest possible level of health: it works in areas such as immunisation, health education and the provision of essential drugs. Famine and disaster relief is provided by the World Food Programme (WFP), which has the world's largest international food aid Organization. In 1999, the WFP raised \$1.568 billion for emergency assistance for over 89 million people around the world. [<http://www.wfp.org/>]The World Health Organization (WHO) is a specialised agency, which works with non-governmental organisations and governments during disasters to provide immunisation, health education and the provision of essential drugs. The International Labour Organization (ILO) formulates policies and programmes to improve working conditions and employment opportunities, and defines international labour standards as guidelines for governments. The UN Educational, Scientific and Cultural Organization (UNESCO) promotes education for all, cultural development, protection of the world's natural and cultural heritage, press freedom and communication.

The World Bank group provides loans and the International Monetary Fund (IMF) provides funds to bring about financial stability during financial crisis. The International Fund for Agricultural Development (IFAD) mobilises financial resources for better food production and nutrition among the poor in developing countries. Figure 2 further illustrates the inter-relationships with respect to humanitarian aid. It is also important to comprehend the breadth and depth of information related to each programme and to each country.

Figure 2

UNITED NATIONS - HUMANITARIAN AID



Source: Information derived from UN website. <http://www.un.org>.

Intergovernmental Information Resources -The Food and Agriculture Organization

The Food and Agriculture Organization (FAO) was founded in October 1945 with a mandate to raise levels of nutrition and standards of living, to improve agricultural productivity, and to better the condition of rural populations. The historic milestones are listed in Table 1. Since its inception, FAO has worked to alleviate poverty and hunger by promoting agricultural development, improved nutrition and the pursuit of food security - the access of all people at all times to the food they need for an active and healthy life. The Organization offers direct development assistance, collects, analyses and disseminates information, provides policy and planning advice to governments and acts as an international forum for debate on food and agriculture issues.

TABLE I -- FAO HISTORIC Milestones:

1996 -- FAO hosts 194 Heads of State or Government at World Food Summit in November to discuss and combat world hunger.

1995 -- FAO celebrates its 50th birthday

1991 -- International Plant Protection Convention is ratified with 92 signatories

1986 -- AGROSTAT, the world's most comprehensive source of agricultural information and statistics goes operational

1981 -- The first World Food Day observed on 16 October by more than 150 countries

1980 -- FAO concludes 56 agreements for the appointment of FAO Representatives in developing member countries

1976 -- FAO's Technical Co-operation Programme established to afford greater flexibility in responding to urgent situations

1974 -- UN World Food Conference in Rome recommends the adoption of an International Undertaking on World Food Security

1962 -- The FAO/WHO Codex Alimentarius Commission established to set international food standards becomes operational

1960 -- Freedom from Hunger Campaign launched to mobilise non-governmental support

1951 -- FAO headquarters moved to Rome from Washington, DC

1945 -- First session of FAO Conference, Quebec City, Canada, establishes FAO as a specialised United Nations agency

1943 -- Forty-four governments, meeting in Hot Springs, Virginia, United States, commit themselves to founding a permanent Organization for food and agriculture

Today, FAO has 180 Member Nations plus the EC (Member Organization) and more than 4,300 staff members around the world. Following recent efforts to decentralise, FAO's staff includes almost 2,300 people at Headquarters and more

than 2 000 working at decentralised offices and field projects. The Organization's 2000-2001 biennial budget is set at \$650 million and FAO-assisted projects attract more than \$300 million per year from donor agencies and governments for investment in agricultural and rural development projects.

Representatives from governments of each of the 180 member nations review the programmes and achievements of the Organization, annually, through the 49 member FAO representative Council and every two years, through the FAO Conference. At this Conference, and at the Committee and Council sessions preceding it, each member country has the right to question, make observations and to vote on whether or not the budget and the programme are acceptable. While all votes are of equal value, assessments are not. A member nation supports the work of the Organization with an annual assessment proportionate to its Gross Domestic Product (GDP).

FAO establishes its plan of work based on its Constitution with the ongoing guidance and approval of its member nations through the Conference and the Council. The responsibilities expressed in the Constitution are carried out through agricultural development assistance whereby FAO gives practical help to developing countries through a wide range of technical assistance projects, through the provision of information and support services, through the provision of advice to governments and through the role of acting as a neutral forum for promoting further action and development.

FAO is active in land and water development, plant and animal production, forestry, fisheries, economic and social policy, investment, nutrition, food standards and commodities and trade. It also plays a major role in dealing with food and agricultural emergencies. A specific priority of the Organization is encouraging sustainable agriculture and rural development, a long-term strategy for the conservation and management of natural resources to meet the needs of both present and future generations through programmes that do not degrade the environment and are technically appropriate, economically viable and socially acceptable.

Priorities are expressed in a very detailed biennial Programme of Work and Budget, which is reviewed by the Council and Conference. Individual Committees on primary technical responsibility areas of commodities, agriculture, fisheries, forestry and food security further review detailed activities and recommend further action.

The work of the Food and Agriculture Organization is governed by the FAO Constitution. This is a formal plan for the Organization written by an Interim Commission set up for this purpose by the 44 nations attending the United Nations

Conference on Food and Agriculture held at Hot Springs, Virginia in 1943. The Constitution reflects the consensus of governments on FAO activities and is shown in Figure 3.

Figure 3

THE FOOD AND AGRICULTURE ORGANIZATION CONSTITUTION

THE CONSTITUTION OF THE FOOD AND AGRICULTURE ORGANIZATION (FAO)

"The nations accepting this Constitution, being determined to promote the common welfare by further separate and collective action on their part for the purpose of raising the levels of nutrition and standards living of the peoples under their respective jurisdictions; securing improvements in the efficiency of the production and distribution of all food and agricultural products; bettering the condition of rural populations; and thus contributing toward an expanding world economy and ensuring humanity's freedom from hunger; hereby establish the Food and Agriculture Organization of the United Nations, hereinafter referred to as the "Organization", through which the Members will report to one another on the measures taken and the progress achieved in the field of action set forth above."

Article I

Functions of the Organization:

1. The Organization shall collect, analyse, interpret and disseminate information relating to nutrition, food and agriculture. In this Constitution, the term "agriculture" and its derivatives include fisheries, marine products, forestry and primary forestry products.

2. The Organization shall promote and, where appropriate, shall recommend national and international action with respect to:

(a) scientific, technological, social and economic research relating to nutrition, food and agriculture; (b) the improvement of education and administration relating to nutrition, food and agriculture, and the spread of public knowledge of nutritional and agricultural science and practice; (c) the conservation of natural resources and the adoption of improved methods of agricultural production; (d) the improvement of the processing, marketing and distribution of food and agricultural products; (e) the adoption of policies for the provision of adequate agricultural credit, national and international; (f) the adoption of international policies with respect to agricultural commodity arrangements.

3. It shall also be the function of the Organization:

(a) to furnish such technical assistance as governments may request; (b) to organize, in co-operation with the governments concerned, such missions as may be needed to assist them to fulfil the obligation arising from their acceptance of the recommendations of the United Nations Conference on Food and Agriculture and of this Constitution; and (c) generally to take all necessary and appropriate action to implement the purposes of the Organization as set forth in the Preamble.

Source: FAO website. <http://www.fao.org>.

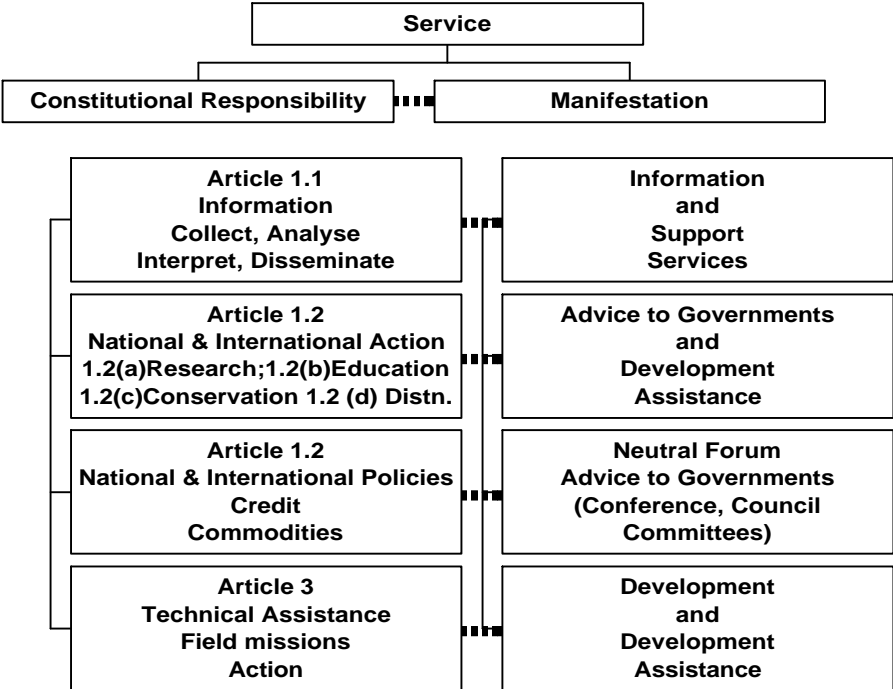
The Constitution was approved by the Quebec Conference, the first FAO Conference held in 1945, a meeting of the representatives of all the governments. The Food and Agriculture Organization Conference is the supreme governing and deliberative body of the Organization [Phillips, 1981]. Each member government may send one delegate (Permanent Representative) to the Conference and has one vote. The conference acts on applications for FAO membership, elects

representatives to the Council, reviews and approves the Organization's programme of work, decides on the level of the budget, sets the scale of contributions, reviews the state of food and agriculture and elects the Director-General of the Organization.

The responsibilities outlined in the Constitution are carried out through development and development assistance programmes, by effecting information and knowledge transfer, by providing advice to governments and through serving as a neutral forum. These services are exhibited in Figure 4 in relation to the Constitution.

Figure 4

SCHEMATIC OF CONSTITUTIONAL RESPONSIBILITIES AND SERVICES



Source: Food and Agriculture Organization. *The Director-General's Programme of Work and Budget, 2000-2001.*

The Organization usually takes one of three roles and documents activities and results in detail: i) implementing its own programme; ii) executing a programme on behalf of other agencies and international donors; or, iii) providing advice and management assistance to national projects. Consensus by client member governments in the objectives and functioning of the Organization is a key to success. This consensus is achieved through the efforts of the Food and Agriculture Organization staff serving as Country Representatives in the specific country as well as the result of consultation and involvement of the Permanent Representatives normally stationed by each country in Rome.

Development and Development Assistance

Development and development assistance in agriculture is defined as providing the practical help to farmers in developing countries to make their farms more productive and efficient, now and in the future. This is done by training and funding for a broad range of sustainable agriculture practices and rural development initiatives [FAO website. <http://www.fao.org>]. In turn this provides an essential foundation for improving the nutrition, food security and standard of living of millions of people living in developing countries.

A broad range of skills is needed to carry out a project effectively and all of the participants have roles to play. One example of such a multidisciplinary programme is that of Integrated Pest Management (IPM). Similarly, another multidisciplinary sustainable project is that of aquaculture in southern Africa, managed by the Fisheries Department, and a number of projects from land tenure to access to funding for women in development, managed by the Sustainable Development Department. [FAO website. <http://www.fao.org>]

In addition to ensuring adequate food, development, rather than temporary aid, creates employment and generates income through farming, processing and distribution and contributes to overall national development. The development approach provides long-term solutions to the fundamental problems of poverty and hunger. Having a presence in 85 of the developing countries, having good training programmes and training materials support and having technically qualified staff are keys to success in this training and demonstration project work.

In sustainable agricultural development, the Food and Agriculture Organization gives practical help to developing countries through a wide range of technical assistance projects using an integrated approach. Environmental, social and economic considerations are included in the formulation of development projects. In some areas, for example, particular combinations of crops can improve agricultural productivity, provide a source of fuelwood for local villagers, improve soil fertility and reduce the impact of erosion. By combining scientific procedures

and at the same time encouraging people's participation, FAO technical experts draw on local expertise to cooperate in their development activities. New skills, ideas and technologies can thus be introduced in a sustainable way to rural communities. Keys to success are support of member governments, a presence in the developing countries and having a technically qualified staff.

Another key to success is the breadth of products and country coverage. On average, the FAO has some 1,800 field projects operating at any one time, ranging from integrated land management projects to policy and planning advice for governments in areas as diverse as forestry programmes and marketing strategies. Although the Food and Agriculture Organization's budgets are too limited to support these activities, FAO's Investment Centre assists developing countries in formulating investment projects in agricultural and rural development. [FAO website. <http://www.fao.org>]

Information and Support Services

Information services are defined as the broad range of relevant scientific, research and statistical information collected and aggregated by the Organization being made available fairly and equitably to all member nations. Support services encompasses the full spectrum of information collection and dissemination, from creation and aggregation of information in various relevant computer databases to production of various outputs, from CD-ROM and Internet products to a decreasing number of printed publications. [Food and Agriculture Organization. *Programme Implementation Report, 1996-97*]. Knowledge of relevant new methodologies is a vital tool for development. Scientific and technological advances have brought unprecedented changes to agriculture and food production. A key to success is the technical expertise of the Food and Agriculture Organization staff who takes a lead role in transferring this information and related skills to the developing countries.

In addition to encouraging the direct transfer of skills and technology through field projects, FAO undertakes a variety of information and support services. Computer databases are maintained on topics ranging from fish marketing information to trade and production statistics and records of current agricultural research. The FAO's Geographic Information System (GIS) provides data on soils, vegetation cover and other aspects of land use. Satellite imagery is among the many tools used by the Global Information and Early Warning System (GIEWS) to monitor conditions affecting food production and to alert governments and donors to any potential threats. The information gathered by the FAO is made available through

publications, videos, filmstrips and computer disks. A key to success is being able to provide technical information and data in a number of formats.

The Food and Agriculture Organization's information activities also include grassroots communication programmes that reach rural people directly, encouraging community awareness and action on agricultural and environmental issues. Public information campaigns address major issues at a broader level.

FAO's [Global Information and Early Warning System](#) (GIEWS) monitors the crop and food outlook at global and national levels to detect emerging food shortages and assess possible emergency food requirements. Since its inception in 1975, the System, in addition to its regular reports, issues Special Alerts/Reports to the international community on the deteriorating food supply prospects in various parts of the world.

The System issued warnings of developing drought in southern Africa in 1991/92 and again in 1994/95, some 3-4 months in advance of the harvest. In 1987, GIEWS issued an Alert three months ahead of the harvest on the poor performance of the southwest monsoon in Asia and its implications for regional food supplies. This enabled several countries to make critical decisions on imports and food stocks. The FAO website reports on more recent examples. [<http://www.fao.org>]

Here is how GIEWS works: Every day analysts study dozens of indicators that affect food supply. Satellite images and weather station data show how the growing season is progressing in broad areas of the developing world. Socio-economic indicators are monitored. In an emergency, major aid donors and humanitarian organisations are alerted by fax/telex. FAO missions are dispatched to the affected area to confer with local authorities and study the situation first hand. National and international efforts are mobilised to provide food for the hungry and to restore production and distribution.

FAOSTAT is another support service, providing an on-line and multilingual database currently containing over 1 million time-series records covering international statistics in the following areas:

-Production	- Land Use and Irrigation
-Trade	- Forest Products
- Food Balance Sheets	- Fishery Products
- Food Aid Shipments	- Population
- Fertilizer and Pesticides	- Agricultural Machinery

Development assistance in agriculture means providing the practical help to farmers in developing countries to make their farms more productive and efficient, now and in the future.

Examples of development assistance:

- [People's participation in Sri Lanka](#)
- [Aquaculture in southern Africa](#)
- [Integrated Pest Management \(IPM\)](#)
- [Women in development](#)

This means fostering sustainable agriculture and rural development to provide an essential foundation for improving the nutrition, food security and standard of living of millions of people living in developing countries.

In addition to ensuring adequate food, it creates employment and generates income through farming, processing and distribution sectors and contributes to overall national development. FAO promotes development that provides long-term solutions to the fundamental problems of poverty and hunger.

The phrase 'Advice to Governments' refers to FAO's roles in developing and promoting international standards for food and agriculture and in the provision of sound agricultural and policy advice. Agriculture is one of the foundations of national development because it helps feed a nation's population, provides employment and income and can prove a crucial source of foreign exchange earnings.

FAO works with governments to promote agricultural and rural development and to foster international co-operation on issues such as food standards, fair trade, environmental management and the conservation of genetic resources. FAO gives independent advice on agricultural policy and planning, on the administrative and legal structures needed for development and on ways of ensuring that national strategies are directed towards rural development and the alleviation of poverty.

The Field staff is critical in providing advice at the national level. FAO has Country Representatives covering more than 100 developing countries, providing a direct link to the Organization's resources. FAO also sends missions, often in conjunction with other agencies, to assess resources, offer advice on management strategies, review development programmes and assist in dealing with emergencies.

FAO's mediation at the international level has resulted in a number of intergovernmental agreements, such as the International Undertaking on Plant Genetic Resources and the World Soil Charter. The Organization works to improve regional co-ordination, particularly in the management of shared resources - supporting the Amazonian Co-operation Treaty, for example. Through TCDC, the Organization's programme for technical co-operation among developing countries, FAO identifies opportunities for countries to share expertise.

Another example of advice to governments is the **Global Plan of Action for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture**, adopted by 150 countries at the International Technical Conference, and subsequently endorsed by the Conference of Parties to the Convention on Biological Diversity.

A neutral forum refers to the provision of an impartial meeting place for members of the nations of the world, where matters of concern to agriculture and food can be discussed without fear of serious repercussions and conflicts. Such international co-operation is essential for meeting global, regional and national development goals. Shared resources and responsibilities require co-ordinated management strategies and FAO documents and reports on all initiatives.

FAO's role as a neutral forum is also closely related to its role as an adviser to governments. Five specialist committees - on commodities, fisheries, forestry, agriculture and world food security - advise the FAO interim governing body, the Council, on current trends and suggest practical management strategies in their fields of expertise.

The Council, in turn, reports to the FAO Conference, the Organization's supreme governing body. Through the Conference, Member Nations contribute to debate and participate in policy formulation of major food and agriculture issues. Member Nations meeting at the Council commit themselves to supporting developmental initiatives, such as the World Food Security Compact and the International Code of Conduct on the Distribution and Use of Pesticides.

FAO convenes top-level international conferences covering areas of particular concern. In the past, conferences have included the World Food Conference, the World Conference on Agrarian Reform and Rural Development and the World Conference on Fisheries Development and Management. The Organization also hosts regular technical meetings on topics ranging from specific commodities to biodiversity. Focusing on nutrition, FAO joined with the World Health Organization in setting up the December 1992 International Conference on Nutrition to re-awaken global awareness of the most basic human needs and to

ensure that all people have access to the food they need for a healthy, productive life.

World leaders from 186 countries attended the World Food Summit in 1996 and adopted a Plan of Action. The Convention on Biological Diversity, adopted at Rio de Janeiro in 1992, acknowledged and stressed the role of local communities, especially women, in the conservation and sustainable use of biological diversity. As part of the follow-up to the World Food Summit, and as a supplement to its Regular Programme activities, FAO implemented a Special Programme for Food Security, which is now operational in low-income food-deficit countries and under formulation in other countries. The Programme's guidelines foresee the use of analysis of constraints to food security, with special attention given to the analysis of socio-economic constraints, by gender and by specific groups, in particular with regard to access to technology, land, input, storage, marketing, processing and credit facilities.

Intergovernmental Information Resources -The Shape of Things to Come

This brief summary has, it is hoped, described and illustrated the persuasive and pervasive nature of the inter-governmental organisations. Promoting human health, development and dignity, focusing on peace, the United Nations and its agencies are having a net positive effect, influencing increasingly every individual in every walk of life. Given the observation that the structure of the organisations is sustainable, one can predict a continuing and growing influence in the years to come.

Collaboration and co-operation is a key to success within the present United Nations structure. Waste and unnecessary expenditure cannot be tolerated. Member governments are continuously alert for ways to achieve greater efficiencies and expect the same vigilance from the inter-governmental bodies. Within specific disciplines collaboration has allowed great achievements. One specific example among many is the success of Codex Alimentarius, the set of international food standards jointly prepared by the WHO and FAO. These standards help achieve the objectives of both Organisations for they allow maintenance of health and nutritional standards and facilitate international agricultural trade.

Within the information and knowledge management domains, interagency task forces have addressed joint and collaborative projects. Together, the members of the Task Force on Library Management and Standards have created a union web-based database of the depository libraries of the United Nations and the agencies. They have defined best practices, formats and a common carrier for a shared

bibliographic and full text link database, which currently covers seven agencies and is being extended to others. The phased implementation of the Z39.50 standard will allow greater flexibility. They are also working towards a common metadata-indexing scheme to facilitate multi-agency search and retrieval. In the regions, practical ways of collaboration and co-operation are also being sought. One can see the many knowledge-based and economic advantages of these directions and predict that this trend will continue.

Knowledge management has been the favourite phrase of the last decade of this century. As technology evolves to encompass and actualise the vision, undoubtedly it will shape the decades to come. Given the investment in infrastructure now taking place in the developing world, the great technological advances are predicted to take place in these regions. These are the regions also which will have greater percentages of young and energetic populations and the focus of the multinational enterprises, intergovernmental collaboration and non-profit organisations will combine to transform the economies and promote development and expansion. Technologies will evolve to foster distance learning, multilingual communications and true knowledge management, assisting in the economic and social development process. As we work towards making this utopia a reality, we will need to capitalise upon every resource and utilise every inspiration to bridge the gap.

References

"Briefs", China Daily, (Print Media Foreign-Title:Chung kuo jih pao), Print Media Edition: North HANGZHOU, August 26, 1998, p. 5.

BBC Monitoring Asia Pacific - Economic, "UN food organisation helps reduce China's Sichuan grain losses," BBC, London, November 14, 1998, p. 1.

BBC Monitoring Asia Pacific - Political, "UN Organization to send agricultural chemicals 31st July," BBC, London, North Korea, July 28, 1998, p. 1.

Caifang, Zhao, "Women's role in farming praised," China Daily, (Print Media Foreign-Title:Chung kuo jih pao), Print Media Edition: North American ed., New York, October 16, 1998, p. 3.

Casterad, M. A.and J.Herrero, "Irrivol: a method to estimate the yearly and monthly water applied in an irrigation district," Water Resources Research, H.W. Wilson - AST, November 1998, 34(11)3045-9.

Chuangdong, Wang, "Industrialization to raise grain output," China Daily, (Print Media Foreign-Title: Chung kuo jih pao), Print Media Edition: North American ed., New York, September 27, 1998. p. 8.

Ciment, James, "The UN's Food and Agriculture Organization has launched a promotional campaign for dairy products, following the realization of a decline in milk drinking among the world's children," British Medical Association, International edition, London 317(7170)1407.

"FAO grants assistance for small-scale farmers," Businessworld, Manila. September 28, 1998.

Food and Agriculture Organization, The Director-General's Programme of Work and Budget, 2000-2001, Food and Agriculture Organization of the United Nations, Rome, 1999. [<http://www.fao.org/docrep/x1496e/x1496e.htm>]. Consulted 09/08/00.

Food and Agriculture Organization, Legal Office, FAO Basic Texts, <http://www.fao.org> Consulted 10/08/00.

Food and Agriculture Organization, Programme Implementation Report, 1996-97. C 99/8. August 1998. Food and Agriculture Organization of the United Nations, Rome, 1998

Food and Agriculture Organization, A Strategic Framework for FAO, 2000-2015, Version 1.0, [Draft for Discussion at] Council, 115th Session, Food and Agriculture Organization of the United Nations, Rome 23-28 November 1998.

Food and Agriculture Organization, "What is FAO?" FAO website <http://www.fao.org> Consulted 10/08/00.

Food and Agriculture Organization of the United Nations, World Commodity Situation and Outlook and Trends in Protectionism in Agriculture, Committee on Commodity Problems, 62nd Session, Food and Agriculture Organization of the United Nations, Rome, 12-15 January 1999.

Friedrich, Theodor, "Pesticide problems," Resource, St. Joseph, October 1998, 5(10)9-10.

Houlder, Vanessa, "Climate change could add to African hunger," Financial Times, November 3, 1998, p. 10.

Huanxin, Zhao, "Fishery angles for co-operation," China Daily, (Print Media Foreign-Title:Chung kuo jih pao), Print Media Edition: North American ed., New York, October 3, 1998, p. 1.

International Fund for Agricultural Development website. IFAD's Vision <http://www.ifad.org/vision2.html> Consulted 22/03/99, 01/04/99. 09/08/00.

International Fund for Agricultural Development website. What is IFAD? <http://www.ifad.org/introl.html> Consulted 22/03/99, 01/04/99, 09/08/00.

"Indonesian Food Production Decreases Further," Asian Wall Street Journal, New York, October 8, 1998. p. 4.

Maathai, Wangari, "Let nature's harvest continue: African counter-statement to Monsanto", Review of African Political Economy, London, September 1998, 25(77)529-531.

MacKenzie, Debora, "Save our sharks," New Scientist, November 7, 1998, 160(2159)14.

Moors de Giorgio, Emmanuelle, "The rural finance revolution," African Business, December 1998, pp. 33-34.

Phillips, Ralph W., 1981, FAO: its origins formation and evolution 1945-1981. Food and Agriculture Organization of the United Nations, Rome. p. 19 and following.

"Rice Stockpiles to Meet FAO's Optimum Level," Korea Herald, Seoul, September 8, 1998, p. 1.

Siegel-Itzkovich, Judy, "Feed children less fat, more pasta," Jerusalem Post, [Daily Edition], September 13, 1998, p. 13.

Teo, Joyce, "Asia's Rice Industry to Take Stock Of 1999 Demand at Conference," Asian Wall Street Journal, New York, Oct 28, 1998. p. 21.

UN around the world website <http://www.un.org/aroundworld/map/> Consulted 22/03/99, 09/08/00.

United Nations Development Programme website. About the UNDP <http://www.undp.org/> Consulted 09/08/00.

United Nations Development Programme. Poverty and food security in Africa. <http://www.undp.org> Consulted 09/08/00.

United Nations Environment Programme website. <http://www.unep.org//program.htm> Consulted 09/08/00.

United Nations High Commission for Refugees website. <http://www.unhcr.ch/> Consulted 09/08/00.

United Nations website. UN Charter. <http://www.un.org> .UN Overview. <http://www.un.org/Overview/brief.html> Consulted 09/08/00.

"Vietnam: In brief", The Saigon Times Daily, Ho Chi Minh City, November 17, 1998.

Website of the month: <http://www.fao.org> The Unesco Courier, Paris. September 1998, 51(9)45.

World Bank Annual Report 1998. Summaries of Projects Approved.
<http://www.worldbank.org>. Consulted 09/08/00.

"The world's cities are growing, but food supplies and services are lagging, the Food and Agriculture Organization (FAO) said in its latest annual report," China Daily. (Print Media Foreign-Title: Chung kuo jih pao), Print Media Edition: North American ed., New York, November 30, 1998, p.12.

World Declaration on Nutrition. International Conference on Nutrition. Food and Agriculture Organization of the United Nations and World Health Organization Rome, December 1992

<http://www.who.int/hpr/school/documents/nutrition/annex9.html> Consulted 22/03/99.

World Food Programme website. <http://www.wfp.org/> Consulted 09/08/00.

World Health Organization. World Health Report 1998.
<http://www.who.int/aboutwho/en/achievements.html> Consulted 09/08/00.

Jane M. Wu
Food and Agriculture Organization (FAO)
David Lubin Memorial library
Viale Delle Terme Di Caracalla
Rome 00100, Italy
Fax: +3906 57052002
Jane.Wu@fao.org

THE CHALLENGE OF ORGANIZATION THE RESEARCH SERVICE AND THE LIBRARY OF ALBANIAN ASSEMBLY*

By Zana Bufi

The Library of the Albanian Assembly was established on January 1992, as part of the administration of first pluralist parliament that came out of first free and democratic elections held in Albania. Nevertheless, the research and information service of Library was introduced much later on.

Since then, the library has gone through several phases of its establishment and development of which I would highlight the following:

- The stage of the establishment of the parliamentary library in compliance with well-known standards. This stage covers the period 1993-1996. This process was carried out with the assistance of the Library of the American Congress through the Frost Task Force Project, in the framework of providing assistance to the legislative process, so as to make of the Parliament an important institution during the process of the democratization of the whole life of the country.
- The years 1997-1999 is the period during which serious efforts were made by the staff of our Library to give effect to changes in the Regulations of the Parliament of Albania so that the Library should be recognized as a separate department. At the same period, the research services were attached to the Library.
- The period starting from January 2000 marks the establishment of the Committee for the Control of the Research Service and the Library, which is manned by MP's as well, in order to impart a powerful impulse to the activity of the Library and the parliamentary research service.

Assistance of the US Congress Task Force was so fundamental in providing our Library with the most necessary equipment and software, and the staff training, in particular. On the other hand, contacts with our colleagues from Eastern and

* Paper presented for the GLOBAL 2000 Worldwide Conference on Special Librarianship, 16-19 October 2000 in Brighton, UK

Central European Parliaments have also been found very helpful because of similar post-communist history and the same challenges we have to deal with.

For us, the challenge was at making parliamentary members and their supporting staffs understand why parliamentary research service and Library are the heartbeat and pulse of the parliamentary activities. But, how to do it!

Among the primary objectives of the Library is to make the parliamentary deputies and their staff aware of its services and facilities, and to encourage library use. To meet this objective, the library, in conjunction with the Standing Commission of the Assembly, periodically organizes and presents a seminar entitled: "Library and Parliamentary information" As this name implies, the purpose of this seminar is to brief parliamentary members about various library resources and services, including new and pending developments that will better assist members in their work.

In the absence of a reading room directly in the parliament building, the Library staff continually works to advertise the Library's services and to improve the distribution of publications to the deputies. In keeping with this purpose, the Library stays in contact with the deputies through the staff of the Standing Commission.

By the Library of the Parliament of Albania are undertaken efforts to provide legislative assistance to the MP's, thus aiming to become a significant part of the Parliament of Albania during the transition period towards a pluralist society. We are aware that this process is not an easy one, and the events that took place in Albania during 1997 and 1998 proved this.

Thanks to our efforts, following the events in 1997 the equipment and the database in the Library was not damaged, and it was made sure that work proceeded under normal conditions. However, during the events in September 1998, nearly the entire database of the Library was unfortunately destroyed: the central server in which the TINLIB program was installed, was destroyed; the four PC's and the photocopy and the fax machines were taken away, and the place was looted. However, all the information fed into the databases in the ProCite program from 1994-December 1996 was saved in diskettes. The data for the years 1997 and 1998 that were saved in the central server in which the TINLIB program was installed, were entirely lost.

The main thing we had to do at that time was to recover the losses, at the same time continuing to provide services to the Members of the Parliament and the staff of the Parliament.

Proceeding from the very developments of the Balkans, we are aware of the contribution of the Research Service and the Library might promote this democratization process, as well as develop a set of suggested standards for effective parliamentary research services.

To this end, the Library decided to take on the responsibility to play the role of the mediator between ideas and action. This was not an easy thing to do. It required efforts, persistence, and above all, quick action. In this time the Parliament of Albania was faced with the emergency situation following the 1998 events and the 1999 Kosova crisis, priority was continuously given to the work in the parliamentary committees and plenary sessions.

At the same time, during these years the Parliament focused on the improvement of its Regulations, and the Regulations on the Organization and Functioning of the Staff of the Parliament. It was precisely at this time that we started to insist firmly in order to achieve several of our long-term goals:

- The change in the organigram of the Parliament, which would bring about the separation of the Library from the Publications Department, so that it could stand on its own;
- Attachment of the Research Service to the Library;
- The establishment of the Committee for the Control of the Research Service and the Library, manned also by Members of the Parliament whose participation in it would impart a powerful impetus to settlement of the problems of Research Service and the Library.
- Recruitment of the parliamentary staff to be involved in the Research Service.
- Manage change for upgrading traditional library service and service of information to an electronic library and computerized information service;

The Library offer their services only to the MP's of all the parliamentary Legislatures, the members As a result of these efforts, by decision of the Parliament of the Republic of Albania, dated 9 April 1998, the Regulations of the Parliament of the Republic of Albania was adopted. Article 116 states explicitly that: *"... amongst the services offered by the staff of the Parliament are the legal service and the research and information service, to help the Members of the Parliament in the process of the drafting and examination of the draft laws."*

In October 1999, the Regulations on the Organization and Functioning of the Staff of the Parliament were adopted. Its organogram provides that the Research Service and the Library are a separate department. For the first time, the new Regulations

highlight the establishment and functioning of the Committee for the Control of the Research Service and the Library

In July 2000, by decision of the Speaker of the Parliament, the composition of this Committee made up of seven members: four Members of the Parliament, and three members of the parliamentary staff, were adopted.

The Research Service and of the President's cabinet, the members of the Cabinet of the Minister who is in contact with the Parliament, the part-time adviser of the Parliament, and the secretaries of the parliamentary groups.

In order to provide the necessary information to the Members of the Parliament, we cooperate with the National Library of Albania, Albanian NGO's, different international organizations operating in Albania: the Organization for Cooperation and Security in Europe, the European Union, the Council of Europe, the United Nations Development Program, the World Bank Group, the International Monetary Fund, the United Nations Children's Fund, and the United Nations High Commissions for Refugees etc.

The Secretary General of the Parliament of Albania addressed a letter to these organizations and institutions, as well as all the Ministries and other Albanian Central Departments, requiring that they sent their publications to the Library of the Parliament. Thus, the Library began to collect the documentation on the period of the transition from a totalitarian to a democratic State. These publications will help the lawyers and the support staff in the parliamentary committees with their analytical studies, thus enabling them to contribute to the legislative process. A leaflet is distributed to the Members of the Parliament which provides comprehensive information on the Research Services and Library and the services it offers.

- Service and the Library offer the following services to their users:
- The information and bibliographical service.
- The consultation service on the classic catalogues, the collections of books, and the way of accessing to the Library services.
- Information on the Library services' users on the accessing to the resources of electronic information.
- Information on every legislature, including the three last electoral elections: 1992, 1996, and 1997.
- Information on the CV's of the Members of the Parliament in every legislature.

- Advisory service to the parliamentary committees, with an anticipation of preliminary information in compliance with the agenda of the parliamentary activity.
- Selected titles of articles, of interest to the Parliament and on each and every Member of the Parliament, taken from the magazines and newspapers to which the Library is subscribed.
- Preparation of "info-packs", being this an initiative undertaken by the Research Services and Library to provide the parliamentary delegations attending international events with various historical, economic, legislative, executive and judiciary data. In specific cases, at the request of the Members of the Parliament "info-packs" on a particular subject are prepared.
- Preparation of "info-packs" with abstracts from the reference books, especially on Albania, and various subjects of parliamentary interest.
- In specific cases, research has also been undertaken in the framework of the ECPRD.

The legislative research is one of the research services in which the Members of the Parliament and their support staff have also taken an interest. The request is usually put forward by the Parliamentarian concerned, either depositing it directly at the Library or by telephone. In order to be able to provide a quick and accurate service to the Members of the Parliament, we make use of our own reference resources, the database of the Library, the electronic resources, and in given cases, we cooperate also with foreign Embassies in Albania. Research on the Albanian legislation has also been undertaken at the request of foreign Embassies in Albania.

We have recorded an increasing number of requests for our services. During the January-July 2000 only, 130 requests have been filed. Whereas during 1997, 70 requests were recorded.

The Members of the Parliament take a special interest in the press service, as well. After having taken a look at the daily press, we prepare the relevant indexes for the articles, which are then clipped. The files for the articles covering the parliamentary activity are prepared on the basis of their subject. The debates in the Parliament published in the press, the press conferences, interviews, opinions and statements are entered in a special index under the relevant name of the Member of the Parliament (clips from the daily press). At the same time, they are entered into the respective database. At the end of the summer and winter sessions, beginning from the year 2000, bibliographies of their activities published in the Albanian

press are prepared, which are distributed to them at the beginning of each new session.

The Library publishes:

- At the beginning of the year, a list of the titles of the newspapers and magazines to which the Library is subscribed;
- A list of new entries;
- Thematic and chronological bibliography of the legal and normative acts published in the Official Gazette for the period 1991-2000 (Albanian-English);
- Thematic bibliography of the articles selected from Albanian newspapers and magazines;
- Thematic bibliography of the books;
- CV's of the Members of the Parliament in every legislature;
- Manuals with information and data on every legislature

The number of the Members of the Parliament (MP's) who use the Library services, has kept increasing:

February 1997: 127 MP's

February 1998: 137 MP's

February 1999: 174 MP's

February 2000: 329 MP's

For the index system of the legal acts, the press and the books the same EUROVOC system is applied. The work on the EUROVOC index system will be finished soon. The beginnings of the work on it go back to 1995.

Referring to future trends, we intend to:

- Manage change for upgrading traditional library service and service of information to an electronic library and computerized information service;
- The library is continuously searching for means to develop a modern information system. Automation of the library work has advanced slower than staff would like, not of any reluctance to organize in a new way, but preliminary due to lack of sufficient funding;
- Develop and maintain the Albanian Assembly Home Page, including Albanian legislation database in (the later developed by the Library own resources);

- Interface the Library system with Plenary Session Hall that will allow parliamentary members to access the library database system on line (Library is physically located in the building of the Presidency of the Albanian Assembly);
- Start with computerization of Plenary Sessions.

Zana Bufi
Kuvendi Shqiperise
Bul. "De"Shmoret e Kombit, NRC,
Terana
Albania

GOVERNMENT INFORMATION AND INFORMATION ABOUT GOVERNMENTS IN SOUTHEAST ASIA: A NEW ERA? AN OVERVIEW*

By Ch'ng Kim See¹

Introduction

The most recent published literature on Southeast Asian government information and official publications (GIOPs) can be found in *Guide to official publications of foreign countries, second revised edition, 1997* and *Information sources in official publications, 1997*. Coverage in these two titles has been mainly on printed sources, with little or no mention of electronic sources, which will also be discussed in this paper.

General Overview

The political, economic and social developments in Southeast Asia are so diverse amongst all the ten countries² that they span the spectrum of underdeveloped (least less developed, less developed), developing and developed status as defined in the United Nations (UN) official standard of "Human Development Index" (HDI). And it follows that, more or less, the "state of the art" of their respective GIOPs reflects that of the UN HDI.

At one end are the newer entrants to ASEAN, beginning, in this order, with Myanmar, Cambodia, and Laos; followed by Vietnam and Brunei. At the other end are the founding members of ASEAN, Indonesia, the Philippines, Thailand, Malaysia and Singapore, in this order, as assessed according to their relative GIOP "development", accessibility, availability and transparency.

* Paper presented at the International Federation of Library Associations and Institutions (IFLA) 65th General Conference, Bangkok, 20-28 August 1999. (Revised April 2001)

¹ Surname: Ch'ng [Email address: chngks@iseas.edu.sg]

² The ten countries are Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam, all of which are members of ASEAN, the Association of Southeast Asian Nations formed in 1967, the latest entrants being Vietnam (1995), Laos and Myanmar in 1997, Myanmar (1998) and Cambodia (1999).

The New ASEAN Four

Myanmar

It appears that, despite its membership into ASEAN, the GIOP record of Myanmar has not departed much from that before its entry; on the contrary, since its entry into ASEAN, there have been inexplicable delays in the issuance of some important titles such as the annual *Review of social and economic conditions*³. Normally available in April, it has ceased since 1998. There appears to be an accelerating trend in reverse in Myanmar to withhold or suppress government information since the 60s⁴. The *Burmese Gazette* used to be in English and Burmese, but only the Burmese has been issued since 1985. There is even less information released since 1996 when U Than Shwe was appointed Chairman of the reconstructed State Peace and Development Council (SPDC) which replaced the SLORC (State Law and Order Revolutionary Council). Annual statistics are two to three years late and monthly statistics several months late. This year's budget, usually due on 31 March, has not been announced in the local newspapers which normally publish budgets, laws, statutes, etc. In the past there have been complaints that defence budgets were unreasonably high, which is probably why, as some researchers postulate, that it has been decided not to announce the budget. Researchers looking for government data have to depend on other sources, such as monitoring speeches of ministers and officials which may reveal some figures from time to time.

Cambodia and Laos

In the case of Cambodia and Laos, the latter since before its entry into ASEAN, has been progressively improving its record of GIOPs, especially on statistics having been made aware of ASEAN requirements for regular disclosure of basic social and economic indications. As for Cambodia, the situation had taken a setback from what little improvement had been gained in the interim years since the UN-supervised general elections of May 1993, due to the political crisis in 1997. But with the return of UN, Funding and NGO bodies assisting in its infrastructural development and capacity building, the compilation of basic statistics and analyses, and issuance of GIOPs should go back on track.

³ This is a requirement of ASEAN. Ironically it was always on time before it became a member of ASEAN.

⁴ There was more access to government information during the colonial period, than at present, when statistical information and publications were systematically collated and produced, and censuses were held and published regularly. The last general census held was 1983. See *Statistics an the Burmese economy, the 19th and 20th centuries*. Compiled by Teruko Saito and Lee Kin Kiong. Singapore, Institute of Southeast Asian Studies, Singapore, 1999.

Vietnam

Apart from basic economic data and indicators, the Vietnamese have been publishing and releasing more than ever before, especially in English and on economic data; but the political ones are as usual rare and less forthcoming, given its socialist structure of government. All the Ministries and Departments issue their own information except for vital statistics and economic data which are centrally controlled through the Central Statistical Office. Almost all information published in Vietnam can be deemed GIOPs, except for innocuous light titles in the arts through "private" presses. Recently, "the authorities declared that economic data such as money supply, state reserves ... and inflation ... are state secrets ... The Security Ministry's Department A25 ensures that individual journalists follow these rules" (Edwards, 2001).

The ASEAN Six

Unlike the above-mentioned newer members of ASEAN, all six countries have legal provisions for the deposit of government GIOPs at their respective National Libraries and/or National Archives. Nevertheless, almost all have been hampered by the lack of monitoring facilities and manpower to effectively collect all GIOPs, let alone develop proper and timely bibliographic controls. Many government committees, especially interagency ones which may also include NGOs (Non-government organizations and the private sector or individuals) set up to work on specific issues, for instance, produce limited numbers of reports which escape the net, and it would be difficult to locate the issuing authority for copies. This aside, the dearth of GIOPs in Brunei remains unchanged. In all these countries, there is no central government "bookshop" or exclusive bibliographic control mechanism that facilitate easy and speedy access to GIOPs as one can find in the U.S. or the U.K. There is no comprehensive national policy on their archiving for preservation and conservation.

Indonesia

As Indonesia is in a state of flux, and in the throes of a dramatic social, political and economic upheaval, the somewhat scattered initiatives of various official sectors to document, publish and release more government information in conventional and electronic formats, have been held back or slowed down considerably. Notwithstanding, symptomatic with the national mood and popular demand for more openness in the democratic process, since the last two years or so, there have been selective public sector releases and publications of significant official information not seen before. One of the most important releases has been *The Final Report of the Joint Fact-finding Team (TGPF) on the May 13-15, 1998*

*Riots*⁵, in October 1998. Along with that has been an upsurge of instances of speeches and pronouncements emanating from office holders, from the President, his spokesperson, cabinet ministers, the military chief to other government personnel. These have been issued mostly through the mass media, especially the printed press.

There is certainly a growing sense of openness in regard to GIOPs during this transitional period. And certain government departments continue to be active in providing vital information, especially in regard to the processes of democratization such as on electoral issues. During this interim period, availability of more GIOPs is constantly challenged by a sudden floodgate of a freer press and media. Whether this situation of openness will be reversed any time soon given the seemingly intractable political and economic fluctuations is a moot question.

The Philippines and Thailand

In both countries, in recent years considered to have adopted political democracies more akin to those of western models than those practised by Malaysia and Singapore, and where civil society is taking what appears to be deep and irreversible roots, there have been relatively higher proliferation of GIOPs. The much freer and independent press and media sector vigilantly monitors and calls for more transparency in government practice and accountability, resulting in more and easier access to GIOPs. The more open and competitive quasi government sector, including the many tertiary institutions, contribute to the increasing volume of GIOPs. By far, the Philippines has been more prolific than any other of the ASEAN countries.

Malaysia and Singapore

Although by normal standards, basic and vital indicators are current and easily available, and government policies and non-controversial socio-economic, including scientific and technical data and information, are documented and accessible, governed by legislative remnants⁶ of their colonial past, and perhaps coloured by similar histories of communist insurgencies and racial unrests⁷, certain

⁵ There has never been an investigation team (comprising NGOs as well) of this nature and mandate, nor such a report ever made public during the 30-year Suharto rule.

⁶ The *Official Secrets Act*: in 1994, the Singapore government charged five persons, one of them a high level official in the central bank, for unauthorized and untimely release of the economic growth "flash estimate" of 4.6 per cent of the 1992 second quarter. The trial lasted 42 days and all of them were found guilty and fined – "to establish a principle: that any breach of the OSA would be acted upon". (*Straits Times*, 1 April, 1994).

⁷ The *Sedition Act*: in 1998, a parliamentary oppositionist was jailed for 18 months (thus losing his legislative seat) for publishing statutory rape allegations against a ruling party politician, who was then the chief minister of a state.

GIOP access and availability especially in areas perceived as politically sensitive, are still off limits. The lack of press freedom and freedom of speech has not been helpful to instigate more of such GIOPs.

Interestingly however, in a bitter fight in 1998 with opponents within the ruling party, the Malaysian Prime Minister released a flood of what would have been deemed "official secrets", name lists of indigenous Malays privileged with share allocations and other government contracts and business handouts. And in the current "aberration" of political discontent, with the younger electorates not prepared to accept the status quo and shunning most of the government-controlled mainstream media, turning instead to NGO (Non-government organizations), opposition party newsletters and the Internet, there is some evidence of more GIOPs in otherwise taboo areas being released. The most evident of all was the publication of the Royal Commission report of police assault of the sacked Deputy Prime Minister. Singapore, for quite different reasons, recently announced a host of measures to "loosen" up the banking sector, amongst a plethora of steps to create a more open and competitive economy; and one beneficiary is transparency in strategic sectors, which would correspondingly include more releases of GIOPs. Nevertheless, where deemed a sensitive area, certain data would not be available, such as the breakdown of immigrant labour by country.

Information Technology (IT) Applications in GIOPs

Cambodia, Laos, Myanmar, Vietnam

In the three newer ASEAN members and Indonesia, there has been little apparent evidence of any policy articulation on the way forward for releasing and producing more GIOPs in electronic formats in the wake of the next century, although there have been noticeable increases especially of economic and social data and information in such developing economies like Indonesia and Vietnam. The increase in quantity can be largely attributed to the requirements of funding agencies such as the World Bank, the UN Development Programme (UNDP), the International Monetary Fund (IMF) and Ford Foundation, and indeed ASEAN, for such data. Also, Vietnam, although a socialist country, is aware that economic development, especially in the business and industrial sector, is better served by making available more vital indicators and data.

There is no government web site, or any electronic retrieval/storage databases in Cambodia, Laos and Vietnam; Myanmar has recently mounted a web site on its government, and its Ministry of Foreign Affairs which have only basic information. In these countries, there is still a guarded approach to the publishing of GIOPs in electronic formats, simply that they would be overtly open to public

scrutiny and potential "abuse", and the state would lose control of the situation. Of course, the problem of the lack of capacity due to the absence or shortage of skilled manpower and funding is a big underlying negative factor. However, there seems to be a more relaxed view⁸ towards the provision of Internet and email access, except in Myanmar which has only recently allowed a limited number of individual accounts. Until recently, a government appointed agency sieved through all messages and faxes only those regarded "harmless" (to the State) to the individual for a steep annual and per message fee. It is as yet not known if this censorship has been removed.

Indonesia

Despite the absence of a central coordinating body or evidence of government-driven IT policy for the country, in Indonesia, especially in Jakarta, several ministries and government departments have mounted web sites but provide mainly information and their coordinates. The Statistics Department offers alternative formats of their monthly and other outputs in diskettes. The universities, quasi government agencies and some departments continue to provide information through their Web sites, some including citation announcements of their publications. However, by and large, they are informational and not interactive. Only recently, was its National IT plan articulated: *Kebijakan Strategis Pembangunan Ilmu Pengetahuan dan Teknologi Nasional, 2000-2004* (National Strategic Development Plan for Science and Technology).

Brunei

As for Brunei, as with its other national programmes, it has been a low-key and gradual process; its only university has a web site, also the Institut Teknologi Brunei and most of its government ministries and departments have web sites. But these are mainly informational with no interactive or on-line databases of text or citation records; there is no online facility, interactive or otherwise of any government databases, nor is there known to be any existing electronic databases.

In September 1998⁹, the Brunei government launched its nation-wide broadband IT network *RaGAM21* (*Rangkaian Global Aliran Multimedia – Global Multimedia Network System*). The US\$30 million project which aims to connect Brunei

⁸ Interestingly, recently the long-time Malaysian Prime Minister, determined to push for international support for his pet IT projects, swiftly overruled his functionaries who had threatened to introduce censorship policy because of anti-government postings and messaging. And also recently the Singapore government made unreserved apologies to Internet users for unannounced "intrusions" by a local Internet provider with assistance from the Ministry of Home Affairs of Internet accounts to check for "viruses".

⁹ *Borneo Bulletin*, 22 Sept, 1998

community "electronically globally", has as one of its building blocks the BIIG (Brunei Info-Communication Infrastructure Interacting Globally) telecommunication infrastructure. The ultimate goal of this all encompassing project is to enable Brunei "to prepare for the new age of global multimedia network and electronic commerce thereby boosting and securing Brunei's role and place in the competitive global economy in the 21st century" which would allow for Brunei to plug into global multimedia faceted e-commerce, trade, tourism¹⁰. As the implementation of the concept is still in its nascent state, it would be interesting to observe how this national IT programme is translated into the enhancement of GIOPs considering the conservative nature of its government.¹¹

The ASEAN Four

At the other end of the scale, four¹² of the five founding members of ASEAN are forging ahead with their GIOP "programmes", albeit at different levels, depth and speed, in policy articulation/orientation, development and implementation; in the main, embracing opportunities afforded by developments in information technology (IT), while releasing more information on paper and in electronic databases, and publishing more through their respective national printers, ministries, departments, and/or through commercial publishers.

In the lead up to the next century and new millennium, all four governments have clearly acknowledged that their countries' competitive edge will hinge upon an open economy underpinned by an information/knowledge-based society. They have identified information technology (IT) as a primary strategic tool that will drive the engine of economic growth. The implications are profound, in that information, especially government information, needs to be more and readily available, and the opportunity and right of user access will be enhanced.

The Philippines and Thailand

In the Philippines and Thailand, considered to have adopted political democracies more akin to those of Western models than those practised by Malaysia and Singapore, and where civil society is taking what it seems to be deep and irreversible roots, by a good measure, there have been relatively higher proliferation of GIOPs. There, their governments have started since the early 1990s¹³ to incorporate information technology (IT) application into their routine intra-departmental communication link-up, as well as encouraging the

¹⁰ See www.netkad.com.bn.

¹¹ Brunei Darusalam is an absolute monarchy.

¹² Malaysia, the Philippines, Singapore and Thailand.

¹³ Unfortunately, the Asian currency and economic crisis has dampened the speed somewhat.

development of IT products in the storage and dissemination of GIOPs not only for government but also for public consumption.

Both the Thai and Philippine governments have called their IT concept plans IT-2000 and NITP¹⁴-2000 (and later a more comprehensive policy formulation called IT21) respectively. Amongst its major three-prong programmes for a comprehensive IT application throughout Thailand¹⁵, the concept strongly advocates government agencies at all levels to apply IT to their work, develop information networks and public databases for their own use, for businesses and the general public. Examples of government plans to initiate databases include statistical information, agriculture price information and extension services, education data, public health and patient records, laws and regulations, business registrations, international trades and markets, natural resources, energy, weather forecast, tourism, land, sea and air transportation, land ownership, etc.¹⁶ The Thai government started to work on a systematic but low key approach to IT development in 1992, but it was only in May 1997 that it had approved a large budget for *IT Projects for National Development*¹⁷.

Although there are as many web sites as there are core government institutions, the publication of GIOPs in electronic formats is still embryonic in some cases, and absent in most. Most of the web sites are informational, containing organizational coordinates, directories of staff, summaries of activities, and are not linked and non-interactive. The quasi government institutions have done better, such as tertiary institutions where there are two university networks *THAILINET-M* (Thai Academic Library Network) (started in 1993) and *PULINET* (Provincial University Libraries Network) (started in 1986) which have been developed to link the libraries' online catalogues (but only bibliographic) amongst other cooperative programmes. There are plans to merge the two online networks to form a national information network to provide at least 30 databases of bibliographic catalogues, full-text databases, digital libraries and electronic loan system.

¹⁴ National Information Technology Plan

¹⁵ Dubbed the IT master plan for Thailand, its three "pillars" are "better telecommunications and networking infrastructures, the need to improve intellectual skills of workers and good governance".

¹⁶ See *Towards social equity & prosperity: Thailand IT policy into the 21st century*. National Information Technology Committee (NITC) Secretariat, 1997; *Getting ready for the new millennium: what are the Thai Government's actions towards the year 2000, 1997 report; IT projects into the future*, by Thwaweesak Koanantakool, 1998.

¹⁷ The allocation was for 4.2 billion bahts (US\$335 million) (Over a three (?) year period.)

In the Philippines, the two "themes" in its national strategic plan are anchored in "global competitiveness" and "people empowerment", which would establish "an informal but close cooperation between government, business and labour/NGOs; adopt achievable development targets; and maximize the use of information as "the great strategic resource of the 21st century that will enable the country to respond to threats and opportunities in the world marketplace"¹⁸ And amongst its NITP strategies are the "formulation and implementation of a Government Information Management Plan" and the "establishment of a national information management communication network". Its October 1997 *NITP for 21st century* or *IT21* agenda spelt out "specific time frames for establishing these goals", i.e., from the present to the 2010.¹⁹ Over US\$20 million have been invested in IT infrastructure development nationwide.

Philippine government ministries and departments are being linked within Ministries or inter departmentally, over 100 have web sites. Most have information on their policies, staffing directory, coordinates, and publication lists. The Statistics Department which is one of the most prolific, provides useful information on them. Some public domain GIOP databases are being developed and available on web sites, such as the National Statistics *QuickStats*, the *Economic Indicators Online (EIO)*, and the Commission of Elections voters' list.

Malaysia

Malaysia has been touting its Multimedia Super Corridor (MSC) plan since June 1997. At the heart of the concept plan is Cyberjaya, a Silicon Valley type of enclave of 750 square kilometres (15 by 50 km) carved out of plantation and jungle land, located in between the new administrative capital Putrajaya and the new Kuala Lumpur International Airport (KLIA). The MSC development project has been single-mindedly and uncompromisingly pursued by the prime minister himself, in which he expounds the scenario of a paperless (electronic) government administration as a lead component project, amongst a list of IT applications.²⁰ The Prime Minister's Office has led the Federal Government relocation to Putrajaya, rushed to completion, in June 1999.

Vowing to lead by example, the government pumped in US\$1,055 million in its *Seventh five-year development plan (1996-2000)* into IT, and has spent more than US\$9 million in training civil servants, installing IT equipment and networks to

¹⁸ See *The National Information Technology Plan (NITP) within the context of Philippines 2000*.

¹⁹ See *IT agenda action for the 21st century* (1997). Manila, NITP

²⁰ The MSC comprises seven flagship applications, viz., multimedia applications, electronic (paperless) government, multipurpose smart card, telemedicine, and smart schools.

connect ministries and departments and providing and encouraging state and local governments to do likewise. The *Civil Service Link (CSL)* (later upgraded to *CSL Gateway*) project aims to develop a "paperless" electronic communication network in government, beginning with the Federal government. Central to this is the exhortation to all federal and state governments to adopt and embrace IT like never before into their daily work routines and in the provision of information. As a result, since 1996, there has been a proliferation of web sites ("277 homepages") set up by ministries and departments. Most of them are informational, less are interactive, and even less provide online access to databases whether bibliographic, statistical or textual. And many web sites have not been kept up to date, and have drawn public criticisms, and especially scathing attacks in the press condemning them as "cobwebs" (*New Straits Times*, 24 Jan 1999). Nonetheless, press releases from some ministries and speeches of some ministers (especially those of the prime minister), have been available from their web sites.

The universities and some statutory bodies have done better with more current information, such as *Palmolis* (Palm Oil Research Institute of Malaysia) and *Sirimlink* (Standards and Industrial Research Institute of Malaysia) now available on a fee-basis via their respective webs. *Masticlink*, is a public domain Malaysian Science and Technology collection of science and technology databases which available free if charge. By and large, aside from providing mainly informational web sites and online bibliographic catalogues and databases, most have not advanced substantially in GIOP provisions.

Singapore

Singapore's response to the IT hype in June 1996 is the *Singapore One*²¹ project, subtitled *A Network for Everyone*, which was conceptualized as a master plan to transform the city-state into an "intelligent" city. As a ten-year IT development plan with a US\$2 billion infrastructure budget, it is aimed at a comprehensive broadband network of all government and commercial offices, including 800,000 homes on the National Information Infrastructure (NII) backbone. As in the case of the other three IT-motivated countries, again, the thrust of the plan is underpinned by direct government sector involvement. By far, Singapore surpasses the rest, being the world's first nation-wide broadband network. And to underscore the strategic significance of this government-driven integrated IT network, a new ministry has been recently established as the Ministry of Communications and Information Technology (MCIT), indeed a demonstration of the government's determined political will and resolve to accelerate and forge ahead of the pack. All

²¹ It is a better articulated and focused plan than its precursor the 1992 *IT2000* concept.

this IT development is kept on the fast track, despite the recent Asian currency crisis and the recession (1997-2000), to boost its global competitive edge.

Needless to say, all its ministries, departments and statutory bodies have well maintained and informative web sites. A good number are interactive and have impressive hyperlinks, and Intranets for effective civil service communication. Many government services, such as income tax submissions, application forms, etc., are online. Online public access databases, most available on the web, include the *eGazette* on Singapore Government gazettes, *LawNet* which contains Singapore law research, litigation and conveyancing, *Singstats* Datashop on Singapore official statistics, and Globalink which supplies a number of online trade databases, such as the Singapore *trade connection* on exports and imports. All these are fee-based, some with minimal fees on a cost-recovery basis.

A New Era for Southeast Asian GIOPs?

Decreasing availability of GIOPs as governments privatize and corporatize

In tandem with the recognition amongst the *ASEAN Four* that the new millennium will usher in the *Information Age*, there has been a growing pattern of down-sizing government and privatizing²² basic public amenities such as road works, telecommunications, electricity, water supply and even education. This has removed the onus of such information and data collection and provision from the government (public) domain into that of the private sector or corporatized arm of government. This development will impact on the provision of and access to relevant information in a civil society, if the principle of proprietary information (so-called company secrets) in the context of private ownership is invoked. It would thus be useful to monitor the situation in these countries, and to consider the need for legislation to compel mandatory disclosures of certain core and basic data and information for the public good.

As one of many measures being taken to restructure the banking sector, identified as the mother that triggered off this current recession, the Singapore government is vigorously pursuing a more open system which would require more disclosures.²³

²² Ostensibly to reduce public spending and create competition, and in many cases, it is just a matter of changing hands, with little or no competition as it becomes a monopoly. Worse, it removes accountability from the public sphere when hitherto periodic reports would have to be made to the legislature. There is an absence of a regulatory body, as in certain western countries.

²³ See Endnote no. 6.

Information rich versus information poor

Then, there arises the issue of affordability to basic data and information, which are now being charged, some on a cost-recovery basis, others for profit. It has become particularly fashionable, especially in Malaysia²⁴ for public institutions to charge exorbitantly even for public domain information and publications or their reproductions, particularly for electronic-based ones. The danger of widening gaps between the information-haves and have-nots is being revisited, and right at the doorstep of what should otherwise be public domain information and publication source.

And unless the availability and affordability of IT equipment and services is pervasive nation-wide, a further erosion of equitable access is inevitable. The danger of urban-rural divide is exacerbated. IT literacy and adequate IT training and education are serious issues which must be addressed by governments without further delay.

IT as the panacea of information and knowledge gaps and problems

Prevalent amongst government officials (and indeed in many other sectors as well) is the misconstrued notion that IT is an all-in-one solution (Child, 1997), forgetting that it is only an enabling tool, and neglecting the content, viz., the substantive informational inputs, their regular updates and appropriate maintenance of related software and hardware. In the enthusiasm to embrace IT, most governments in the region have climbed on the high horse, touted its importance, and maximized mass media publicity at the outset. Unfortunately, in some cases policy enunciation has become flawed in mere rhetoric: policy has not been translated into implementation, described as the "chasm between the mindsets of the implementers and policy-makers" (*New Straits Times*, 25 January, 1999). For instance, despite initial related training programmes of staff and provision of funding, it appears that many IT projects have been left to languish after the high profile start-up. This apparent malaise is evident in many Malaysian government web sites (*New straits times press*, 24 January, 1999), as well as in the absence or lack of conversion of paper to electronic formats of publications and databases of which IT formats are clearly superior options for updating, ease of use, better access and availability. Nevertheless, even with just announcements of publications, list of publications, speeches, events and the like in some web sites, these are an improvement over the absence of the Internet in the past.

²⁴ This seems to be an over-enthusiastic response to the Malaysia Inc. concept in which many public sector activities are being perceived as potentials for corporatization and privatization, for which subsidies are reduced or withdrawn, and the agency is expected to earn its own revenue. The flavour of the month is education, and universities which are being targeted, are responding by increasing all their fees and prices of their products.

Preservation and conservation

In the desire to digitize information and offer them electronically, there is a serious lapse in policies and procedures on their preservation and conservation. Conventional print and microform formats have withstood the test of time, but not IT storage formats, where standards are still being worked out or allowed to find their own levels in the marketplace in the software and hardware components. As is well known, every 10 to 18 months, IT machines, software and even networks become obsolete. And with the proliferation of web sites and an increasing number of online link-ups, conversion to CD-ROMs and the like, as well as diskette and server storage, there is a genuine case of concern that governments, especially library, archive and informational professionals, must address this and related archival issues with some urgency. Many web sites and online databases carry short archival periods of electronic documents. In Malaysia, the National Library of Malaysia has recently formed a national committee to deal with this and other related issues, one of which is the inordinate updated versions of papers, articles and speeches mounted on the web giving rise to questions of which version(s) should be "saved", and how many in the process.

Legal deposit provisions have also to be considered and updated to include digital information, where even in existing legislations, few have included ministries and governments in mandatory requirements to deposit their publications with an appointed agency (usually with the National Library), and where the materials have not been defined to include digitized formats.

Depositions, Bibliographic control and Availability

Not all Legal Deposit Acts explicitly include ministries and government departments. This "silence" must be addressed. And although most of the countries with legal deposit provisions have entrusted a central body such as the National Library, to implement the Act, most GIOPs escape the net, due mostly to the ignorance or lack of support of such a requirement from the departments' staff. There is also the low priority accorded at the national library end (lack of staffing) which depends on automatic deposits from the commercial sectors instead of field staff to aggressively collect such materials: legal recourse of non-deposits is unrealistic given that the culprit is another government department. Bibliographic control also receives low priority, with issues as late as one to two years. Most titles have short print-runs and limited distribution. There is no central agency apart from the government printers (which sell only what they print, and most GIOPs are not done through them), like a GIOP bookshop selling all GIOPs.

Authenticity and Verification

The issue of authentic and legal versions of government documents in electronic formats, especially those obtained from the web and other online formats has still to be addressed; and they must be done soon, especially in the case of Malaysia and Singapore which are forging ahead to facilitate GIOP provisions electronically. The courts still regard only hard copies as the authoritative copies. Policies adopted would greatly assist library and information centres in their services and collection development and general public access.

Freedom of and access to information: a concomitant process of an open market economy

The wide gap in economic, social and political development between one group of countries in the region (all in the continent), and the other group (all except for one, are insular) is reflected also in the state of the art in their GIOPs, including their digitized forms. The case of the Philippines and Thailand where western-style democracy has evolved, accompanied by freedom²⁵ of and access to information, demonstrates that GIOPs will be more available and accessible. And even if the political sector is slow to "loosen up", the underlying imperatives of competitive open economic and free-market systems for accurate and speedy availability and access to vital statistics and information are bound to compel, pressurize or motivate governments to be more responsive to user and public GIOP demands, as has been surprisingly heeded by Vietnam. Even so, the globalization of every facet of societal activities, so hard-driven unmercifully by IT, will further enhance the availability of and access to GIOPs in the rest of the region.

National IT and information policy and implementation

As governments in the region are leapfrogging and jumping onto the IT "frenzy" bandwagon, it would do well for each one to take stock of existing policies and assess current situations vis a vis achievables, and for newer ones to ensure that there must be policies to define the framework, agenda and strategy that the country wants and can adopt. This aside, the provision of and access to GIOPs must be integrated into a holistic policy framework for IT and information; such as what GIOPs should continue to be issued in hardcopy, and what in soft copy in the context of their timeliness, time-sensitive nature and their archival value. So far, there has been an absence of national debate and discussion.

²⁵ In both countries, there is unfettered press freedom, to the extent that some tabloids, especially in the Philippines have taken undue advantage and become irresponsible, causing the new President to take out libel suits against them recently.

Conclusion

In the light of the globalization of human activity, underpinned by the unrelenting and pervasive force of IT, there is no doubt in the foreseeable future²⁶, that GIOPs in Southeast Asian countries will be more available and accessible. The push and pull factors of globalization, democratization, developments of open economies, and the inevitable and eventual development or maturation of civil society will result in more timely and better quality and substantive GIOPs in the region.

Indeed, depending on the existing state of development of each country, there are different degrees of "openness" and "transparency" in the type and depth of data, information and publications available in different formats and accessibility amongst the ten countries. More or less, this will be reflected by and dependent on the "progress" in the political processes such as in democratization, in the intrinsic values embodied in civil society, and in the embracing of an open market economy. While there is optimism that most countries will catch up in this regard, the inherent attendant problems and issues discussed above must be addressed and resolved.

At the beginning of the 21st century, the latest global *Information Society Index*²⁷ has placed Singapore in tenth place, Malaysia in 34th, Thailand 45th, the Philippines 46th and Indonesia in 54th place. In the new millennium, how this is translated into a proliferation of more and better GIOPs in all formats, including those which are IT-based, depends on the political, economic and social processes (and development) in each country.

References

Child, Margaret (1997). "Taking preservation across cultural frontiers." In *Libri*, 17 (139-146).

Colloquium on Academic Library Information Resources for Southeast Asian Scholarship, 3-5 November, 1997, Kuala Lumpur (1997). Proceedings. Kuala Lumpur, University of Malaya Library.

²⁶ Except for Myanmar

²⁷ *IDC/World Times Information Society Index (ISI), 1999 and 2000*. None of the other Southeast Asian countries made it to the ranking as this International Data Corp (IDC) "ISI report tracks data from 55 countries that collectively account for 97 per cent of the global GDP and 99 per cent of IT expenditures". It makes estimates and forecasts up to 2002 for "23 different variables spanning four infrastructure categories", which include "information rank", "computer rank" and "Internet rank".

Edwards, Adrian (2001). 'A different kind of freedom' in *Far Eastern Economic Review*, March 29: 24-25.

The Eighth national economic and social development plan (1997-2001) (1997). Bangkok, Office of the Prime Minister, National Economic and Social Development Board.

Guide to official publications of foreign countries, second edition (1997). Bloomington, Indiana University Libraries.

Guides to information sources in official publications. Edited by Valerie J. Nurcombe (1997) United Kingdom, Bowker-Saur, Maypole House.

Howland, Joan Sidney (1998). The 'Digital Divide': are we becoming a world of technological 'haves' and 'have-nots?'. In *The Electronic Library*, v. 16, n. 5, October 1998 (287-289).

Joint LAS/PPM Conference on IT in the Next Millennium, 21-24 June, 1998, Kota Kinabalu (1998). Proceedings.

Mid-term review of the seventh Malaysia plan 1996-2000 (1999). Kuala Lumpur, Economic Planning Unit, Prime Minister's Department, Percetakan Nasional Malaysia Berhad.

Moore, Nick (1998). Policies for an information society. In *Aslib Proceedings*, v. 50, n. 1, January 1998 (20-24).

[See various government web sites.]

Acknowledgements

ISEAS Library: Ms Gandhimathy Durairaj, Head, Reference, for assistance in extensive literature search, including *Internet* surfing and document delivery; Ms Iris Kim for secretarial assistance.

Ms Rosna Taib, Chief Librarian, Universiti of Teknologi, Malaysia; Ms Shahar Banun Jaafar, Director-General, National Library of Malaysia; Ms Nellie binti Dato Paduka Haji Sunny, University Librarian, Universiti Brunei Darussalam, Brunei; Mrs Khoo Siew Mun, Chief Librarian, Sunway College, Kuala Lumpur; Ms Linda Yip, Director, Access Dunia Sdn Bhd, Kuala Lumpur, for prompt and valuable responses to queries and requests for information.

Disclaimer

The author is responsible for the facts, views and opinion expressed in this paper, and they do not in anyway reflect or represent those of the Institute of Southeast Asian Studies (ISEAS), Singapore.

Ch'ng Kim See
ISEAS Library
Institute of Southeast Asian Studies (ISEAS)
30 Heng Mui Keng Terrace, Pasir Panjang,
Singapore 119614
Tel : (65) 8702439 / 8702401
Fax : (65) 775618

ISSUES OF AUTHENTICITY OF SPATIAL DATA *

By Patrick McGlamery

Introduction

When we talk about "spatial data" the image that comes to mind is a map. The map as object is, of course, the result of tremendous data compilation. Take a standard USGS 7.5 minute topographic quadrangle. The quad covers about NN square kilometers in my part of the US. These NN sq. km. are represented on a piece of paper NN sq. cm. The map shows rivers, roads, houses and vegetation at a scale of 1:24,000 or 1 cm = 24,000 cm. The data were compiled over decades, both in the field and in a photogrammetric lab. The data on a USGS 7.5 min. topo meet national map accuracy standards. These standards state that, for example:

"Horizontal Accuracy -- For maps on publication scales larger than 1:20,000, not more than 10 percent of the points tested shall be in error by more than 1/30 inch, measured on the publication scale; for maps on publication scales of 1:20,000 or smaller, 1/50 inch. These limits of accuracy shall apply in all cases to positions of well-defined points only. Well-defined points are those that are easily visible or recoverable on the ground, such as the following: monuments or markers, such as bench marks, property boundary monuments; intersections of roads, railroads, etc.; corners of large buildings or structures (or center points of small buildings); etc..."¹

All USGS maps are printed with, "Meets National Map Accuracy Standards" and the seal of the agency. These are clear statements of authenticity, both of the map object and the compilation process. They have served for over half a century to assure the American public of the efficacy of their national mapping program.

Twenty years ago, debate raged over the definition of cartography and maps. The International Cartographic Association (ICA) invited re-definitions of cartography in light of innovations in computer technology. Two camps emerged, stressing the importance of the map on one hand, and the spatial database on the other. M. Visvalingum articulated a middle ground, focusing not on product, but on content. "If cartography is concerned with the making and use of maps, then it is not just concerned with visual products: it is equally concerned with the processes of

* A paper presented at the Open Session of the Division on Special Libraries of IFLA at the 66th Congress in Jerusalem August 2000

¹ United States. Geological Survey, *United States National Map Accuracy Standards* <http://rockyweb.cr.usgs.gov/nmpstds/acrodocs/nmas/NMAS647.PDF>, 1947.

mapping, from data collection, transformation and simplification through to symbolism and with map reading, analysis and interpretation. These intellectual processes are expressed in terms of prevailing technologies and computer-based Information Technology is fast becoming the dominant technology of the day.”²

The leap from analog to digital spatial data has been rapid. The inherent nature of spatial data is Cartesian, the points, lines and polygons on maps are superimposed on a grid. Ptolemy’s 15th Century maps use grids as a locating device. In fact, the data are collected in the field as numbers in an X/Y, Latitude/Longitude coordinate system. Managing these numbers as digital data is easier than managing them as analog data... once the conversion from base 12 to base 10 is effected changing degrees, minutes and seconds into decimal degrees. Digital cartographic data has been used since the 1960s, becoming a standard in the past decade with the rapid rise in computing power, fall in computer prices and education and training of map professionals.

Spatial data

Digital spatial data are generally in three formats; vector, raster and thematic. Vector data are points or nodes linked by arc to represent lines or polygons. This format is most appropriate for line features such as road and hydrographic networks and areal feature like towns, soil types or other geographic areas. Raster, or image data, is another major format of spatial data. Remotely sensed data in the form of satellite images, aerial photography, SLAR (Side Looking Airborne Radar) and other data are a major component. Non-image data such as DEMs (Digital Elevation Models), heights above sea level at regularly spaced intervals are also rasters. In addition, paper copies of air photos, maps and plans become raster data when they are scanned. These data become digital spatial objects when they are geo-referenced, linking the rows and columns of numbers to a Cartesian coordinate system. Depending upon the geographic area covered and the resolution of the data, the resulting data files can be very, very large datasets; in the range of 50 Mb to several Gb. Color, of course adds to the size and complexity of the data file.

Thematic data that are attributed to features are another level of spatial information. The populations of a town, for example, or its area or tax level are each parts of the digital system. Together vector, raster and thematic spatial data provide powerful tools for analysis and decision making within an system. GIS or

² Visvalingam, M., "Cartography, GIS and Maps in Perspective" *Cartographic Journal*, 26 (1), 26 - 32, 1989

Geographic Information Systems have radically effected how we make geographic decisions in the 21st Century.

Integrity of Spatial Data

Determining and assuring the authenticity and integrity of digital spatial information is complex. While spatial information can include cartographic products and attribute data, it always has a geographic component tying it to the earth's surface. Maps, documenting a measurable assurance of spatial accuracy, are fundamental tools of government decision making. In Libraries, maps are often the focus of spatial information, and map libraries and collections, either alone or as part of document collections, are often the locus of issues relating to the authenticity of spatial information. In the United States, map libraries often include collections of aerial photography, gazetteer, atlases and guidebooks; and sometimes census information.

Authenticity of printed maps is well developed. The United States Geological Survey, the country's primary mapping agency, has legally mandated levels of accuracy and rigid editorial review processes, as do most national mapping agencies. These standards assure accuracy, and integrity. Horizontal, vertical and temporal accuracy are documented, fixed in ink with the information carrier. As this information transformed from paper maps to to digital format, issues of integrity and authenticity were overlooked. Spatial information in the United States has given more attention to data quality and spatial accuracy than to authenticity. Anxieties of value and accuracy of the data in the US' litigious society outstripped concerns of data integrity.

Only recently, as the use of spatial data has become ubiquitous in the United States, have issues of authenticity and integrity of data emerged. Spatial data produced by the federal government is in the public domain. MapQuest, one of the Web's success stories, is founded on free federal spatial data. TIGER data, developed by the Geological Survey under contract to the Bureau of the Census created the Topologically Integrated Geographically Encoded and Referenced line feature data at a national scale of 1:100,000. These data began as lines on a map, which were digitized and related to census geographies such as tracts and blocks. In 1990 a free, nationwide set of spatial data were made available to the citizens of the United States. While MapQuest's dataset is generations apart from the '90 TIGER dataset (in fact there have been three subsequent issues of TIGER) they share a common lineage.

One of the complexities of spatial data is that it is not format dependent. The same data can be represented in a variety of ways. For example, here are six graphic

formats [not necessarily stages] of the same information. Each of these formats, from aerial photograph, to orthographically mosaiced photograph, to cartographic map, to the digital formats; DLG, DRG and DOQ is a procedure that loses data. Each step can compromise the integrity of the spatial data.

1. Aerial photographic prints, time stamped, primary, remotely sensed data.
2. Orthographic photography, time stamped, primary, remotely sensed data, projected and geographically referenced.
3. Cartographic line work, secondary, derived from aerial photography.
4. DOQ, digital orthographic photography, time stamped, primary remotely sensed data, projected and geographically referenced.
5. DRG, scanned cartography, projected and geographically referenced.
6. DLG, digital cartographic line work, vector digitized from scanned maps or map separates.

Data Quality

The overarching issues that have challenged the spatial data community have had to do with data quality and error. Quality is about "fitness for use." It has to do with the extent to which a data set, or map output, or a GIS satisfies the needs of the person judging it. Error is the difference between actual data and true data. Error is a major issue in quality. It is often used as an umbrella term to describe all the types of effects that cause data to depart from what they should be. Every GIS action, from conceptualization of the data model to processing of data through to output, has the potential to generate errors and compound existing ones. A user may start with error in one data set (an unreal situation) and through combination with other data sets create an even larger set of errors. The initial error can spread to other data that incorporate the data. The result is information that is less than useful because of the indeterminable compound errors.³

The issues of quality and error can be as mundane as the appropriate scale for the task. For example, census mapping in the United States uses 1:100,000 TIGER data. This scale is appropriate for demographic mapping of the nation. Engineers use a finer resolution to build a drainage pipe, 1:1,000. Though one can 'zoom' the census data, the scale of the data continues to be its input scale, not its display scale. The drainage pipe will be off by several hundred meters. The census mapping data are not fit for the use of siting culverts.

³ UNIGIS, 5: *Data Acquisition and Data Quality* <http://td1.ici.ro/lab2_24/lectie.gis/contents.htm>

Data quality, how to test for it and how to assure it,⁴ it has been the topic of several international conferences and workshops. Visualization tools allow the discovery and exploration of error, enabling the user to determine the ‘fitness for use’. Quality and error of spatial data can have real and drastic affects. Liability is a subject of great interest and concern in the GIS community. If errors or shortcomings have resulted in inappropriate actions or decisions and parties are harmed, the specter of liability arises for dataset and software producers as well as for other parties involved in the handling of geographic information.⁵ Managing data quality, rather than authenticity, has so far been the primary focus of scholarly research.

Managing data quality, to date, has focused on lineage and metadata. A lineage is a record of data history that is presented as a descent or ancestry. Lineage implies time and actions. The example given above: 1.) aerial photographic prints, 2.) orthographic photography, and 3.) digital orthographic photography move the data from analog to digital, from aspatial artifacts to geo-reference data objects. At each step of the process errors are possible, compromising the integrity and quality of the data. Clearly and effectively communicating and documenting those actions in metadata has emerged as a ‘best practices’ solution.

Metadata

Describing the process steps in a metadata record is a significant portion of Section 2, Data Quality Information⁶ of the Federal Geographic Data Committee’s *Content Standards for Digital Geospatial Metadata*. The section includes repeatable fields for lineage and process steps. The lineage fields provide the data producer a way to document the source of the data, that is which maps or air photos the data were compiled from. It also gives an opportunity to document process.

2.5 *Lineage* -- information about the events, parameters, and source data which constructed the data set, and information about the responsible parties.

2.5.1 *Source Information* -- list of sources and a short discussion of the information contributed by each.

2.5.1.1 *Source Citation* -- reference for a source data set.

⁴ Gary J. Hunter, *New tools for handling spatial data quality: moving from academic concepts to practical reality*, URISA Journal <http://www.urisa.org/Journal/new_tools_for_handling_spatial_d.htm>, 1999.

⁵ Harlon Onsrud, *Liability in the use of geographic information systems and geographic datasets*. <http://www.spatial.maine.edu/~onsrud/pubs/liability40.pdf>, 1999.

⁶ *Content Standard for Digital Geospatial Metadata*, <http://www.fgdc.gov/metadata/csdgm/02.html>

- 2.5.1.2 *Source Scale Denominator* -- the denominator of the representative fraction on a map (for example, on a 1:24,000-scale map, the Source Scale Denominator is 24000).
- 2.5.1.3 *Type of Source Media* -- the medium of the source data set.
- 2.5.1.4 *Source Time Period of Content* -- time period(s) for which the source data set corresponds to the ground.
 - 2.5.1.4.1 *Source Currentness Reference* -- the basis on which the source time period of content information of the source data set is determined.
- 2.5.1.5 *Source Citation Abbreviation* -- short-form alias for the source citation.
- 2.5.1.6 *Source Contribution* -- brief statement identifying the information contributed by the source to the data set.
- 2.5.2 *Process Step* -- information about a single event.
 - 2.5.2.1 *Process Description* -- an explanation of the event and related parameters or tolerances.
 - 2.5.2.2 *Source Used Citation Abbreviation* -- the Source Citation Abbreviation of a data set used in the processing step.
 - 2.5.2.3 *Process Date* -- the date when the event was completed.
 - 2.5.2.4 *Process Time* -- the time when the event was completed.
 - 2.5.2.5 *Source Produced Citation Abbreviation* -- the Source Citation Abbreviation of an intermediate data set that (1) is significant in the opinion of the data producer, (2) is generated in the processing step, and (3) is used in later processing steps.
 - 2.5.2.6 *Process Contact* -- the party responsible for the processing step information.

The field of this set that is most informative is the 2.5.2.1 Process Description. In a metadata record of soil mapping these fields look like this:

Lineage:

Process_Step:

Process_Description:

Field procedures for the second order soil survey included plotting of soil boundaries determined by field observation and by interpretation of remotely of sensed data. Boundaries were verified at closely spaced intervals, and the soils in each delineation were identified by traversing and transecting the landscape. The classification and map unit names were progressively reviewed December 1993.

Source_Used_Citation_Abbreviation: None

Process_Date: 1994

Source_Produced_Citation_Abbreviation: CTDEP2

Source_Produced_Citation_Abbreviation: CTDEP3

Source_Produced_Citation_Abbreviation: SCS6

Process_Contact:

Contact_Information:

Contact_Organization_Primary:

Contact_Organization:

U.S. Department of Agriculture, Natural Resources Conservation Service

Contact_Address:

Address_Type: Mailing Address

Address: 16 Professional Park Rd.

City: Storrs

State_or_Province: Connecticut

Postal_Code: 06268-1299

Country: USA

There can be several *Process_Steps*, each one documenting change and possible compromises to the integrity of the data.

There are three quite distinct technical and social strategies for asserting authenticity: public, secret, and functionally dependent. Of these three, the public methods are most appropriate for spatial data and in particular "defining metadata structures to carry document authentication declarations or proofs."⁷

Issues of Authenticity in Spatial Data

This paper is most concerned with the authenticity of spatial data, not necessarily spatial information. Therefore the authenticity of a digital surrogate of a map is not under consideration. Scanned historical maps, for example, should be considered as scanned images, not as spatial data. These data objects lacks spatiality, that is, they are not geographically reference. Scanned air photos are the same, however if the scanned historical map or the air photo is referenced spatially as a data object it becomes spatial data.

In many instances authentication of digital surrogates is well ahead of spatial data. Because of the attention spent on spatial accuracy, data quality and integrity, little attention seems to have been spent on assuring the authenticity of the data. There are no digital certificates, watermarks or other markers, nor does there seem to be any interest in that direction.

⁷ David Bearman and Jennifer Trant, *Authenticity of Digital Resources; Towards a Statement of Requirements in the Research Process*, D-Lib Magazine, June 1998, <<http://www.dlib.org/dlib/june98/06bearman.html>>

There is one tradition in the mapping science that does mark spatial data. Surveyors and their associates often stamp and mark their data. Spatial designs done in AutoCAD are printed and the paper copies notarized. The paper copy becomes the copy of record. A digital interpretation of this is making the maps available in Adobe PDF format and marking them. The Environmental Data Resources, inc. scan and make historic Sanborn Fire Insurance maps available in pdf format, marking each "page" with:

The Sanborn Library, LLC

This Sanborn Map™ is a certified copy produced by Environmental Data Resources, Inc. under arrangement with The Sanborn Library, LLC. Information on this Sanborn Map™ is derived from Sanborn field surveys conducted in:

Copyright © The Sanborn Library, LLC

EDR Research Associate

Reproduction in whole or in part of any map of The Sanborn Library, LLC may be prohibited without prior written permission from The Sanborn Library, LLC.⁸

There needs to be attention paid to determining the authenticity of spatial data, both vector and raster data. Onsrud's observation on the liability factor will drive the research into this area, as will the increasing numbers of GIS users and their opportunities for error.

Patrick McGlamery
Map Library
Homer Babbidge Library U-5M
University of Connecticut
Storrs, Connecticut 06269
USA
(860) 486-4589
libmap1@uconnvm.uconn.edu
<http://magic.lib.uconn.edu/~pmcglame/>

⁸ Environmental Data Resources, Sanborn Map Report, 1999,
<<http://www.datasite.com/reports/samples/sanborn.pdf>>