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## **II. DEFINITIONS.**

In any area of controversy, the terms used in the discussion become not only means for expressing the ideas but the very focus of the conflicts themselves. It is thus necessary to develop specific definitions for the terms used, so as to assure common understanding and to clarify the conflicts. The definitions, as presented here, are not intended to be universally accepted, but the principles and recommendations must be read with them in mind.

In arriving at these definitions, the Task Force was faced with a great variety of other definitions of terms used in a number of different policy documents. These have been summarized in Appendix 2, for comparison with the definitions used by the Task Force.

### OVERVIEW.

Sectors

Information

[1.] Resources, Products, & Services

[2.] Industry

[3.] Functions

Government Information

In Commerce

Open Availability

### SECTORS.

**PUBLIC SECTOR.** This term is taken to include government and, more specifically, Federal government. Agencies, like public libraries or public universities that are tax supported, even though non-governmental in character, are included.

**PRIVATE SECTOR.** This term is taken to include private enterprise, for-profit and not-for-profit, as well as organizations such as professional societies and trade associations, hybrids that are joint government/private enterprise, and organizations such as privately supported libraries and universities (even though they may be subsidized by public funds).

A key issue, here, was the ambiguous position of the third sector organizations (universities, libraries, research institutes, professional societies). In some situations, they are public sector institutions [Page 16] (public libraries and public universities, for example, are clearly part of government, in the sense that they are governmentally funded and operated), but in other contexts they function as part of the private sector. The basis for resolution of this ambiguity was never clarified, so the third sector organizations — the not-for-profit institutions and comparable activities of government — were usually treated as part of their respective sectors rather than being identified

as a group separate from the other two. The fact remains, though, that the very membership of the Task Force was chosen to represent three sectors, not two.

Therefore, it is worthwhile identifying the three sector division that implicitly, and sometimes explicitly, were used in the discussions:

PRIVATE ENTERPRISE. Organizations in the private sector, in business for the purpose of making a profit.

NOT-FOR-PROFIT ORGANIZATIONS. Organizations, both public and private (such as universities, libraries, professional societies and trade associations, non-profit research institutes, etc.), that provide non-governmental services, but without the purpose of making a profit from doing so.

GOVERNMENT. Organizations in Federal, state, and local government, including legislative, executive, judicial, and independent agencies performing the functions in governing the society.

#### INFORMATION.

The term "information" was repeatedly used in the Task Force discussed, but it was impossible to arrive at an agreed upon definition. It appeared and was generally understood to refer to the content or symbolic substance of a communication, as separate from the physical form in which the communication occurred. But despite the appearance of a general understanding of the term, it simply eluded specific definition.

The problem faced by the Task Force is exemplified by the definition of "information" given in the 9 June 1980 draft statement from the OMB, concerning "Improved Management and Dissemination of Federal Information: Request for Comment". In it, "information" is defined as "...publications and other documents, such as reports, studies, and brochures, which are available in a paper or microform media (sic)". That definition (in identifying "information" with the media that conveys it, and with a limited set of such media at that) is irreconcilable with the usage in the Task Force.

Although "information" was not defined by the Task Force, the following characteristics of it were recognized:

- Information is an intangible which can be made available in many media. [Page 17]
- Information is not consumed by use; it can be resold or given away with no diminution of its content
- The price of information bears little relationship to the costs of making copies available; the "first copy" cost is likely to represent most of those costs, with reproduction costs being relatively minor.
- The value of information often is determined more by when it is available than by the costs for making it available or even by what the actual content of it is.
- The value of information increases as the amount of data involved and the degree of analysis provided of those data increases.

- Information has value in the marketplace, and is perceived as a capital resource, an investment, an essential tool for decision-making, and a means for better management of tangible resources.

The term is therefore taken as a "primitive", to be interpreted as needed. On the other hand, combinations of that word with other words — information resources, information products, information services, in particular — were explicitly defined.

[1.] RESOURCES, PRODUCTS, & SERVICES.

INFORMATION RESOURCE. A collection of information, together with facilities for accessing and processing it, from which information products and services can be derived.

INFORMATION PRODUCT. A discrete package of information, developed prior to specific needs for it (except perhaps the first), usually with expectation of providing it to a number of users without modification.

INFORMATION SERVICE. Means for storing, accessing, processing, or delivering information to meet the needs of specific users at the time they request it.

The term information resource was taken to include data bases, libraries, and other organized collections and files that could be used for the production of information products and services.

The differences between an information product and an information service were a matter of extensive debate and, in fact, seemed to exemplify [Page 18] rather fundamental issues in the discussion. In particular, the "service" represents the primary emphasis of data base service suppliers, with products being only incidental results; for other kinds of information activities, however, such as publishing, the services they provide are incidental to the creation of products. The distinction became especially important in the context of governmental data bases, because of the extent of "information service" implied by them. In any event, the distinction is that a "product" is the result of a decision made independent of the decisions of specific users; a "service" implies interaction between the user and the system providing the service, including continuous or episodic review of alternatives, expanding upon or making changes in the content or form of the information, or in general adapting the information to the needs of the specific user.

[2.] INDUSTRY.

The information industry has been defined in a number of ways by various persons. An implicit definition is given by the membership of the Information Industry Association; explicit ones were given by Bell and Machlup. Most recently, Marc Porat used one encompassing banking, education, advertising, brokerage, etc., as well as the more traditional information industries, such as publishing, and the newer information industries, such as data base services.

The Task Force limited the discussion to the following use of the term:

INFORMATION INDUSTRY. Those organizations providing information products and service in the marketplace.

There was disagreement over whether the information industry should be limited to private sector organizations, thus excluding governmental agencies such as NTIS and the GPO. Those arguing that it should include government agencies and their contractors saw the term as representing a kind of function; those arguing against doing so, saw the term as representing the difference between public and private sectors, "industry" being confined to the private sector.

In this context, there was also specific concern about the relationship of private sector organizations serving as contractors to the government in providing information services. For the purposes of the Task Force, such organizations, at least in their role as contractors, were regarded as synonymous with the government agency using them. The crucial point in this respect is "who determines the policy?" If the government has done so, there is really little difference, from the standpoint of the issues of concern in the Task Force, between the government carrying it out and a contractor to the government doing so.

### [3.] FUNCTIONS.

In the discussion, it became necessary to define a number of terms relating to functions involved in information systems. [Page 19]

INFORMATION CREATION or GENERATION. These terms were used to characterize situations in which there were no existing sources from which the information can be directly derived. For example, a scientific study would represent the generation of information, as would the collection of census data (since it involves no existing source except the population itself).

INFORMATION COMPILATION. This term is used to characterize situations in which the information is derived from existing sources.

INFORMATION PRODUCTION. This term encompasses the broad range of processing functions, which operate on information that has already been created or compiled, adding value to it, changing its format, but not really changing its content.

INFORMATION ACCESS. This term encompasses the processes by which a user obtains access to information; they may include on-line access, implying a set of functions for selection, presentation, and other services.

INFORMATION DISSEMINATION. This term encompasses the processes by which an organization providing information actively distributes it to users, without the necessity for the users to seek access for each such distribution.

The difficulties in defining these terms are exemplified in the use of the term "access". At the most restricted level, it could be taken as not including distribution, selection, or change of the data. At the next level, access might consist of a distribution function, such as depositing copies at national or regional centers where they can be viewed and copied. At a level of easy accessibility, it might consist of storage in an online data base service, with full capabilities for selection of data from it and for delivery of those data in the form needed by the user.

## GOVERNMENT INFORMATION.

Most of the Task Force deliberations focused on the availability of "government information", but the definition of that term fluctuated widely during the discussion. At times, the term was taken very broadly, including all kinds of information generated by or collected by the government or by its contractors. At other times, the term was taken very narrowly, limited to the definition given by the OMB, in which it is restricted to mean "...for which the government is the primary user"; that usage contrasts "government information" with "public information", the latter being interpreted as "...information to inform or educate the public".

Major concern was felt, however, with the term "government information", even while it was being used, since it was clear that it failed to distinguish [Page 20] and make explicit the variety of forms, purposes, sources, and utilizations made of information that may appear to be covered by it. As a result, users interpret the term to mean what they want (or, in some cases, don't want) the term to cover. To illustrate, any or all of the following types of information were encompassed during some part of the discussion:

- Information contained in the records of government actions (e.g., the Federal Register, the Congressional Record), published to inform the public as well as to record the action.
- Information contained in publications whose aim is to educate the public (e.g., many publications available from the Government Printing Office).
- Information derived from statistical programs of the Federal government (e.g., Census, BLS), developed to assist the government in its proper functioning.
- Information collected from government sponsored research and development projects, whose purpose is technology transfer.
- Information compiled by the government, frequently from private sources as well as governmental ones, with the purpose of providing support to particular segments of the public (e.g., *Index Medicus*, derived from indexing of literature in the field of medicine).
- Information compiled from a variety of sources with the purpose of supporting particular economic or social policies of the government.
- Information provided by the government with the potential purpose of influencing the political process (e.g., press releases).

The first problem, then, with the term "government information" is that these widely varying usages are all brought together in one unresolvable mass.

The second problem, exemplified by several of the above illustrations, is the fact that the term "government information" fails to differentiate among the several sources from which the information is derived:

- Some information is the direct result of government action, generated by the government (e.g., legislation, regulations, and reports of government actions).
- Some information is generated by the government, not as a result of government action, but as a necessary component of meeting functional needs (e.g., cataloging [Page 21] data produced by the Library of Congress).

- Some information is created by the government based on data obtained from the public (e.g., much of the statistical data falls in this category).
- Some information is obtained for the government by contractors (e.g., the reports from government sponsored research and development projects, ERIC indexes and abstracts).
- Some information is derived by processing data from both public and private sources (e.g., indexes to current literature in specific subject fields).
- Some information is taken essentially verbatim from private sources (e.g., data from private data base services, retrieved and stored in government data bases).

A third problem with the term "government information" is that it fails to differentiate the various forms in which information can be distributed. This problem is exemplified by several definitions included in Appendix 1. While the form of distribution may not affect the information itself, it does affect the uses that can economically be made of it. To illustrate:

- Some information is distributed in printed or microfiche form, usually called "government documents" (e.g., reports of government contractors and government agencies).
- Some information is distributed in the form of magnetic tape (e.g., Census summary Tapes, MARC Tapes).
- Some information is made accessible through on-line data base services operated by the government (e.g., MEDLINE, the Department of Energy data base service).
- Some information is made available through private sector data base services (e.g., ERIC data).

A fourth problem is the implication in the term "government information" that there is ownership of the data. Aside from the question of the propriety of government ownership of information, there is the conflict with private property rights if private sector information has been included in information. The problem arises because of the view that government information has been paid for by taxpayer funds and therefore ought to be made readily, even "freely" available; private sector information included in it might then lose its proprietary value.

Each of these problems interacts with the others, and while there is some overlap among them, there are no easy ways of reducing them to a limited [Page 22] number of sub-categories of government information. This complicated the task of coming to agreement on several principles, since different categories of government information will almost certainly require different conditions for availability.

The issues related to the term "government information" were extensively discussed, with concentration on the significance of "rights of ownership" of the information. Thus, the government may have rights because it generates the information, because they have been granted contractually, because the information is in the public domain or within "fair use", because of the right of "eminent domain", because it "owns" the information. However, the point is that "ownership", as such, does not appear to resolve the issues, since there are a number of questions that it begs: What are the rights implied by ownership of data? Do government rights in these respects differ from private rights?

## **Public Sector/Private Sector Interaction In Providing Information Services (1982)**

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Given all of these problems with the term "government information", the Task Force decided to focus on a substitute that could be used in the context of the issues and principles of concern:

**GOVERNMENTALLY DISTRIBUTABLE INFORMATION.** Information brought together for governmental purposes from information in the public domain or within the scope of "fair use", or owned by the government itself, or that the government has obtained rights to distribute, or that is distributable under the Freedom of Information Act, subject only to the statutory limitations (such as national security, personal privacy, etc.).

The phrase "brought together" is interpreted as including generating, compiling, processing, collecting, and analyzing. The phrase "...or that is distributable under the Freedom of Information Act..." was added because the Task force feels that the principle of that Act should be reinforced and emphasized.

### **IN COMMERCE.**

The Task Force discussions were focused on situations in which the government has engaged "in commerce", at least with regard to governmentally distributable information. Since it is relatively rare, in the United States at least, for government to engage "in commerce", it is important to define that term and to suggest why it is an important issue.

**IN COMMERCE.** Engaging in those practices consistent with the active development, production, marketing and distribution of a product or service for purposes of deriving income from its sale.

The complication when the government functions "in commerce" is that, while it may engage in those practices, it may or may not be doing so for the purpose of deriving income. In particular, an agency may have identified [Page 23] "compelling reasons", such as a failure of the marketplace to serve a need, and having done so proceeds to develop, produce, market, and distribute an information product or service to meet that need. The objective is to meet the need, but the practices are those of anyone engaged "in commerce".

This becomes an issue when the imperatives of the process lead the agency along the sequence of stages from identification of a need, through development, to active marketing and distribution without examining the economic and social effects of doing so. Thus, having developed a product, the government is led to begin commercial marketing of it (perhaps without full consideration of the possible alternatives), to educate the users in how to benefit from it, to identify needed improvements that will meet the needs better. Each of these stages occurs without the constraints represented by commercial viability, but with all of the effects of a commercial operation.

### **OPEN AVAILABILITY.**

The Task Force found it necessary to distinguish between "open availability" and "free availability", since the latter term could be interpreted as meaning "without cost":

**OPEN AVAILABILITY.** Making information available without prior restrictions (except those explicitly identified in the Freedom of Information Act) and without procedural complications.

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