

CANADA'S SYSTEM OF SCIENTIFIC AND TECHNICAL
INFORMATION SERVICES - AN ENQUIRY SERVICE
(LE RESEAU CANADIEN DE SERVICES D'INFORMATION
SCIENTIFIQUE ET TECHNIQUE - UN SERVICE DE
DEMANDE DE RENSEIGNEMENTS) *

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ABSTRACT

A brief review is given of the background that has led to the National Research Council's activity of developing a Canadian system of scientific and technical information services. The existing organizational arrangements involving the Development and Implementation Group are described. The concept of an Enquiry Service based on the referral concept is introduced as a means of providing the link between potential users and a supplier of information. The necessary scope of the inventories required for an effective Enquiry Service is indicated and the co-operation from both federal and provincial jurisdictions is emphasized. As an initial test of demand for information, a limited experimental Enquiry Service is to be put into operation very soon. (On donne un bref aperçu des activités du Conseil national de recherches qui ont entraîné l'élaboration d'un réseau canadien de services d'information scientifique et technique. On décrit les structures actuelles autour du groupe de développement et de mise en oeuvre. L'idée d'un service de demande de renseignements fondé sur des centres de référence permet de faire le lien entre les utilisateurs éventuels et le fournisseur de l'information. On indique l'ampleur des répertoires qu'exige un service efficace de demande de renseignements et on souligne l'importance de la participation des autorités tant fédérales que provinciales. Un service de demande de renseignements expérimental doit être mis sur pied dans un avenir très rapproché.)

BACKGROUND

During 1969, two very significant documents appeared which together represent a comprehensive collection of facts, opinions and recommendations relating to Canada's scientific and technical information. The documents are, the Study made by the Tyas Group (1969)

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and the Katz Report (1969). The phenomenal rate of growth of the quantity of information had been becoming increasingly apparent and it was foreseen that difficulties would occur in handling such large amounts. In particular, the usefulness of information would be considerably decreased if individuals' requirements for obtaining a small relevant piece of that information from the vast store could not be met. The Tyas Group Study and the Katz Report examined the situation from the point of view of the users and suppliers of information and recommended the organizational arrangements and responsibilities that were considered necessary.

The need for action prompted the Cabinet, in December 1969, to give the National Research Council the mandate:

"to develop, from existing STI organizations,
a nationwide information network in the
natural sciences and engineering"

The Cabinet decision which was not wholly based on either the Tyas Group Study or the Katz Report represented a broad division of responsibility with respect to a very broad concept.

The National Research Council in accepting the responsibility to develop a national system of services set up a task force which examined the existing arrangements and suggested rearrangements within the Council. It must be emphasized that it is Canada's system and not the National Research Council's system that was to be developed. An internal report was produced (Cote, Jones and Ember, 1972) outlining what was considered appropriate action.

The National Research Council's organizational structure that exists today is shown in Figure 1. The particular sector of interest is that within the responsibility of the Vice-President, Program, Dr. J.D. Keys. There now exists the Canada Institute for Scientific and Technical Information which has been formed from the National Science Library and the Technical Information Service. Together, these services provide a very strong information source. There exists two groups concerned with the concept of a Canadian network of services. The Network Research and Planning Group has emphasized the more prominent and feasible ideas expressed in the Tyas Study and the Katz Report and presented a possible plan for taking the first steps towards developing Canada's system.

To consider the feasibility of the plans and to mold them into a practical scheme is the responsibility of the Network Development and Implementation Group and the following represents the view of that group.

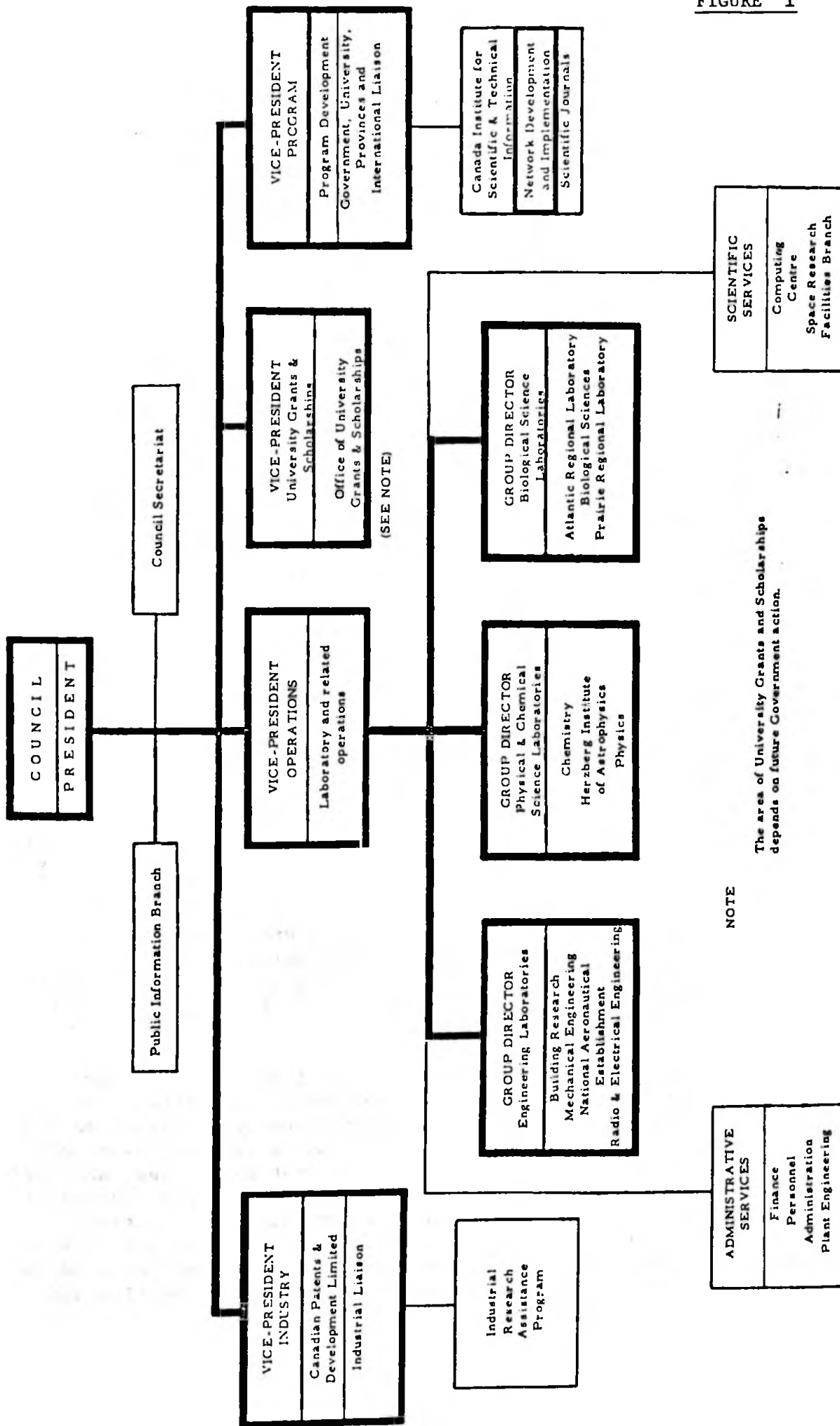


FIGURE 1

The area of University Grants and Scholarships depends on future Government action.

NOTE

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THE QUESTION OF DEMAND

When considering the need for the establishment of a Canadian System of Information Services for science and technology the question must be asked "Is there a demand for such services?" Certainly a great deal of the literature does indicate a demand and both the Tyas Study and the Katz Report state that the demand is there and that it must be filled for the benefit of all Canadians. All the existing information services must agree that a demand exists as witnessed by the actual use of those services. However, having concluded that a demand exists it is necessary to examine the situation more closely to identify users' specific needs and to identify those which require the promotion of more extensive resources.

Use of the existing information services can only indicate the number of enquiries that have been directed towards and received by a particular service. How many more enquiries would have been made if the existence of services was more widely known? How many of an individual's questions and problems arrive at a good source of advice or information? These questions are difficult to answer for they are really asking "What is not being accomplished?"

Before large scale plans are implemented, the National Research Council has decided to try and answer the above and other questions.

THE ANSWER?

A service is to be provided which will be called an Enquiry Service and which is based on the referral concept. The Service does not aim to duplicate or displace any existing information service and will not provide scientific and technical information but will service enquiries by acting as the catalyst between an enquirer and a good source of advice, information or knowledge. The Service will invite any and all questions within the subject area of science, technology, engineering and the health sciences. Because of the clearly defined but comprehensive role, the operation should be able to measure the demand for this type of information, to develop and test the feasibility of the referral mechanism and to gain feedback from both users and suppliers as to the merits of the system and their participation.

To implement the Enquiry Service is not a straightforward operation. Before any mention can be made to the potential users that the Service exists, the extensive background of information and knowledge sources must be made available. By "available" is meant that a detailed description of what the information sources can offer is in the hands of the Enquiry Service. In this context, sources of information or knowledge mean, libraries, technical information services, data bases, documentation centres and includes the very important source manifested by those individuals actively engaged in research or those that have any special knowledge or expertise and

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are prepared to give advice to less well-informed persons. In general, the aim is to eventually incorporate any and all such sources into the co-operative effort that the Enquiry Service represents.

THE EXPERIMENTAL ENQUIRY SERVICE

Ideally, the Enquiry Service at the start of operations, would have an unlimited depth and an unlimited range of sources to which enquirers may be directed. However, to suggest that unlimited demand may occur right from the beginning would be both overwhelming and undesirable. In order to control the operation, a pilot or experimental approach is being taken and the number of potential users have been limited to the specific geographical area represented by the counties of Halton, Peel, York and Ontario, i.e., the region in and around Toronto. Within these counties there is a high concentration of a large variety of activities which potentially have a need for scientific and technical information. Also, as an aid to control the growth of the demand the publicity to promote the use of the Service will be introduced on a gradual basis. The ideas, concepts, methods and procedures that are being and will be continuously developed are to be related to the whole of the Canadian community. However, as the aim is to produce and execute an objective experiment as far as that is possible, an over simplification has been made regarding the users and suppliers. Our main emphasis will be on trying to determine the response of the manufacturing industries as users in the test area because the nature of this group can be more easily assessed.

On the supply side, the federal government sector and the provincial government sector are being considered mainly as suppliers of information for the purpose of the experiment.

A PROGRESS REPORT

How far is the project towards actually operating the experimental Enquiry Service? Up to the present time considerable effort has been put into creating the proper conditions for co-operation between ourselves and the suppliers of information in providing detailed descriptions of the available knowledge.

The more well developed and formalized information sources, such as the libraries, present little difficulty in knowing the type of problem they can handle and the descriptive detail necessary is easy to compile from available literature. It is considered necessary however, to also make personal contact with all sources of information in order to give everyone an opportunity to question and voice opinions about our project. Opinions and reactions are considered as valid design data to be collected throughout the duration of the experiment.

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When the problem of the incorporation of working scientists was considered a number of difficulties arose. Within the federal government over 70% of the numbers engaged in scientific and technical activities are employed in about ten departments. Agreement in principle to participate had been obtained at the Deputy Minister level from sixteen federal departments.

The aim was to encourage co-operation from the department to produce for the experiment a description of the knowledge and experience of individuals or working groups and to use that information to compile an index which would be of use in the Enquiry Service Office in finding a good source of advice as a response to an enquiry.

It should be stressed that although given a Cabinet directive to develop a system of services, the National Research Council is not able to interfere or dictate to any other department and each of those departments must be considered individually each with unique problems and points of view.

Our proposals put forward to the federal departments have met with considerable success and produced an encouraging response. The process of convincing the departments of the merits of our effort and more importantly the potential developments to which they can contribute has taken both time and effort. It was the intention to prompt reactions, good or bad, and to try and accommodate those opinions in our approach.

We have called the index that relates to specialists as the Knowledge Source Index and the first to be produced was that for the National Research Council. Other indexes are in the process of compilation and the whole operation will continue for many months to come. The indexes, under the agreement between the federal departments and the National Research Council remain the property of the department and are considered confidential. None of the information collected by the Network Development and Implementation Group will be published and none will be exchanged between departments unless specifically instructed to do so by the departments concerned.

A similar effort is being extended to the Provincial Government of Ontario in order to incorporate information and knowledge sources which are "local" to the experimental area and again indexes are being produced for the use of the Enquiry Service. As an example of the co-operative nature of the whole operation the Ontario Government will be contributing manpower to the Enquiry Office. Although the experiment has been located within Ontario all the other provinces will be kept fully informed of the developments as they occur and again we welcome their opinions and reactions.

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The experimental Enquiry Service should be in operation during the second half of the summer and the experiment should continue for three years. During this time it is expected that data relating to demand will be collected and interpreted and that the design of the Service itself will evolve into an effective one and particularly one which has been influenced by both the users of the Service and the supporters of the Service.

A report will be produced and presented to the federal government describing the findings of the experiment and making recommendations for implementation on a national scale.

REFERENCES

- COTE, L.G., JONES, S.G., and EMBER, G. 1972 Prerequisite considerations and organization for planning a national (network of) scientific and technical information service(s).
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