

storage, retrieval and dissemination of information.

"From the very beginning," says National Science Librarian Dr. J.E. Brown, "we decided to concentrate on the utilization of mechanized techniques to exploit the Library's resources and facilitate the dissemination of information. We knew that the prime concern of our clientele was to obtain information which was relevant and timely to their activities and that any failure to take advantage of new techniques to improve services would not be excused on the grounds that the Library was concentrating its efforts on streamlining its internal housekeeping operation."

The first step was to mechanize the listing and recording of serials held by the Library, then numbering some 12,000 titles. More sophisticated techniques for handling information were introduced in January, 1966, when the National Science Library started an experimental Selective Dissemination of Information (SDI) system using Chemical Titles (CT) on magnetic tape as search input. For 18 months interest profiles were processed by computer using a program package supplied by Chemical Abstracts Service.

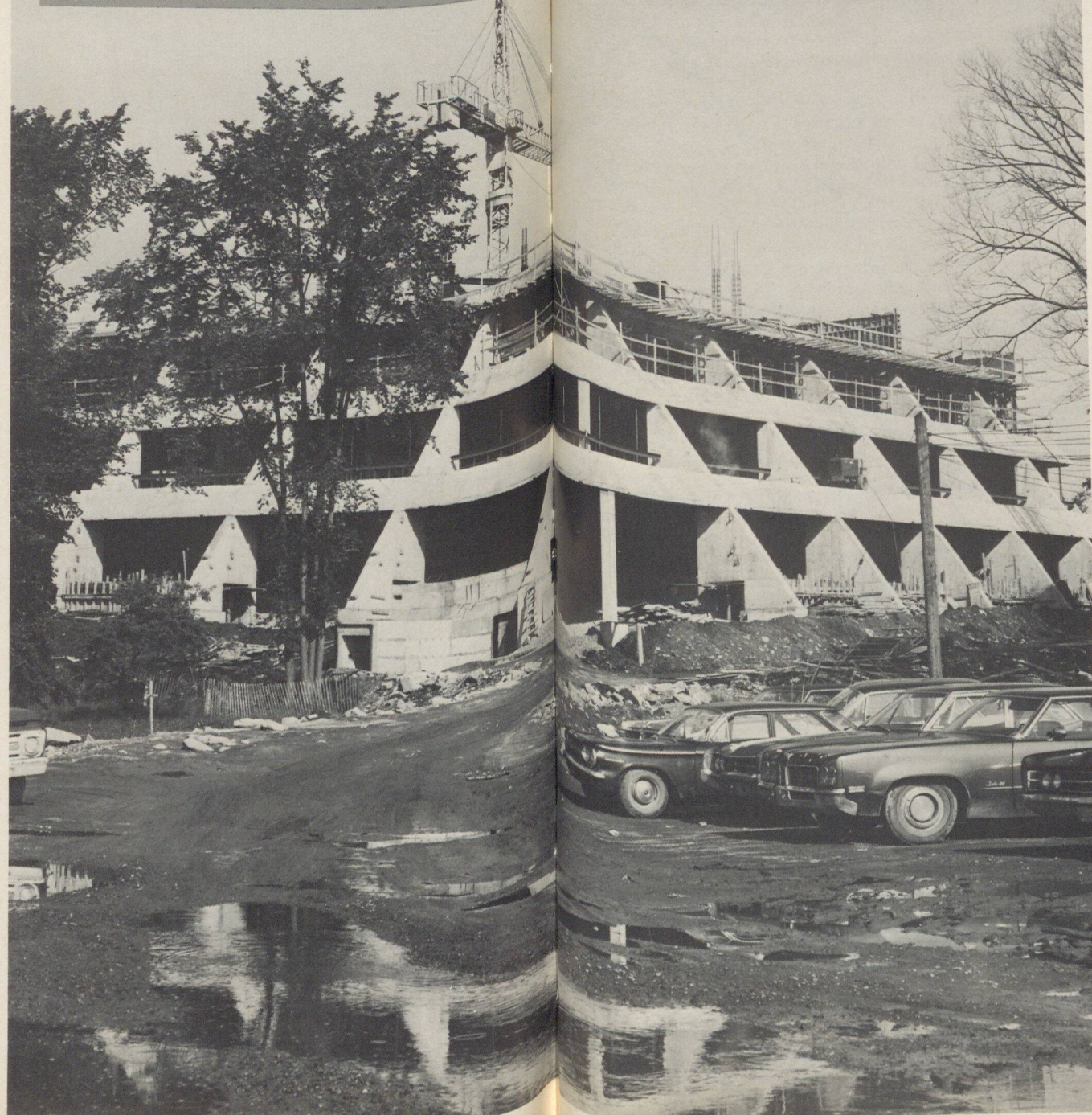
"Anyone who has attempted to use the CT tapes and the related programs as first produced, will be familiar with the difficulties and frustrations we experienced in achieving a workable SDI system," says Dr. Brown. "Because of these difficulties the Library, in cooperation with NRC's Computation Centre, developed within a year a software package that has resulted in the establishment of an SDI system which has won international recognition."

During the first three years of experimentation, because of restrictions placed by producers of the tapes and because of the experimental nature of the project, the SDI services were limited to NRC scientists and other scientists working at various Canadian universities under NRC Postdoctorate Fellowships.

"This limitation," says Dr. Brown, "proved beneficial and highly necessary, for it prevented us from launching prematurely a national SDI service which, because of developmental problems, would undoubtedly have been inadequate. It gave us time to test techniques and programs on a large group of NRC scientists who were willing to serve as 'guinea pigs' and to provide immediate feedback regarding deficiencies in the system."

CAN/SDI (Canada/SDI) — the first Canadian attempt to provide a highly sophisticated computerized STI system to subscribers based on interest profiles — became available nationally in April, 1969. The program is a computer-based current-awareness service which alerts individual scientists, engineers and others to the existence of recently published papers in their specific fields of interest. Under the system, nine data bases containing bibliographic data regarding papers published in over 20,000 scientific and technical journals as well as books, reports, proceedings and patents are processed weekly or bi-weekly and matched against individual interest profiles. During the last year, more than 2,500 users of the service were provided with tailor-made bibliographies selected from over a million papers. NSL subscribes to almost all of the journals covered by these data bases and provides photocopies of cited papers when they are not available through local sources.

New building of the National Science Library under construction. Model, top right. • La nouvelle Bibliothèque scientifique nationale en construction. Maquette en bas, à droite.



Les RCRS publient par le canal de dix revues scientifiques les résultats des recherches. Les articles émanant de chercheurs canadiens ou étrangers sont publiés dans l'une ou l'autre des deux langues officielles du Canada.

En 1963, la BSN qui a vu le jour en 1925 comme bibliothèque du CNRC, a commencé à se servir, à titre d'essai, d'ordinateurs et de l'équipement électronique connexe de traitement des données pour faciliter le contrôle bibliographique, le stockage, l'extraction et la diffusion de l'information.

"Nous avons décidé, depuis le commencement, de concentrer nos efforts sur l'utilisation de la mécanisation pour exploiter les ressources de la bibliothèque et faciliter la diffusion de l'information. Nous savions que la préoccupation principale de notre clientèle était d'obtenir des renseignements qui répondent à leurs besoins du moment et que tout manquement de notre part de tirer partie des nouvelles techniques pour améliorer les services ne pourrait être justifié en donnant comme excuse que la bibliothèque concentrait ses efforts sur l'amélioration du système existant", nous a dit le Dr. J.E. Brown.

La première mesure prise a été de mécaniser le catalogue et l'enregistrement des publications périodiques reçues par la bibliothèque, puis d'affecter un numéro à quelques 12 000 titres. Des techniques plus raffinées pour le traitement de l'information ont été introduites en janvier 1966 quand la Bibliothèque scientifique nationale a lancé un système expérimental de Diffusion sélective de l'information (DSI) utilisant des Titres d'articles de chimie (TC) enregistrés sur bandes magnétiques pour mettre le système au point. Pendant 18 mois les profils d'intérêts ont été traités par ordinateurs en se servant d'un programme fourni par le Service de résumés d'articles de chimie (Chemical Abstracts Service).

"Quiconque a tenté de se servir des premières bandes magnétiques contenant les titres d'articles de chimie (TC) et les premiers programmes connexes, connaît bien les difficultés et les déboires que nous avons dû surmonter pour mettre au point un système satisfaisant de DSI car, en raison de ces difficultés, la bibliothèque a, en une année, mis au point en collaboration avec le Centre de calcul du CNRC, un programme qui a permis de mettre sur pied un système de

