Library of the Hungarian Academy of Sciences Builds Computerized Information Services on ISI's Data Base

At 10 am, March 10, 1980, Philip Sopinsky, James Hofstaedter, and Scott Roberts from the Institute for Scientific Information® (ISI®) were officially welcomed to the Library of the Hungarian Academy of Sciences (LHAS) by its co-directors of information activities, Tibor Braun and E. Bujdosó.

What was so unusual about this meeting? After all, ISI representatives are welcomed into libraries throughout the world every day. This welcoming ceremony, however, was the culmination of three years of negotiation. The goal was to provide Hungarian scientists with an up-to-date and comprehensive repertoire of information services as modern as those available anywhere.

It all began in 1977 when Morton V. Malin, vice president, professional relations and contract research, received a letter from the director of LHAS, György Rozsa, expressing interest in leasing one year of the *Science Citation Index®* *(SCI®)* on computer tape to perform information science and scientometric studies. The *SCI* has been the major tool in a number of similar studies.

A number of Hungarian scientists have taken a special interest in scientometrics. As I have previously mentioned, scientometrics is a relatively new field, concerned with the demographics of the worldwide scientific community.[1] Two years ago, the publishing house of the HAS, in a joint venture with Elsevier Scientific Publish-

ing Company, began publication of the journal *Scientometrics*. The first issue appeared in September 1978. Braun is the managing editor. One of its chief editors is M.T. Beck, a member of the HAS, who later visited ISI during the course of the negotiations. The other chief editors are Derek de Solla Price, G.M. Dobrov of the USSR, and yours truly.

Given this special interest in scientometrics, it is natural that the Hungarians would want to obtain the *SCI* data base for such studies. Their familiarity with the data base led to the idea for the concomitant use of the tapes for information services. This, of course, is not the first time that governmental or private organizations have leased ISI's magnetic tapes for selective dissemination of information (SDI) services. They had been leased by organizations in England, Canada, Germany, South Africa, Poland, Brazil, Australia, Sweden, the US, and Mexico. But the interest had not started with scientometrics.

On behalf of the secretary-general of the HAS, in early 1977, Rozsa wrote that the Academy would be very interested in a visit from ISI personnel to lecture on the *SCI* and scientometrics.

Later that year, Malin and Henry Small, ISI's director of research, along with an ISI representative from Europe, visited the magnificent building of the Academy which houses the library. Lectures on the *SCI* data base and ISI's

work in scientometrics were well received by the audience. János Szentágothai, president of the HAS, chaired the lectures.

Having done preliminary studies on one year of data, HAS representatives expressed interest in expanding their studies to cover earlier years. These studies were part of a general program to upgrade the caliber of scientific research in Hungary. The effectiveness and impact of scientific programs were to be evaluated in order to plan for future development. As part of these studies, an evaluation of the scientific journals published in Hungary would be undertaken.

Between the lectures there were informal discussions about the possibility of implementing ISI's computerized information services at the LHAS. The library would use *SCI* tapes to provide various information services but especially SDI and retrospective search services. The users would not only include the Academy's membership and staff but also the staffs of Academy sponsored institutions. An SDI system, such as ISI's *Automatic Subject Citation Alert (ASCA®)* service, works by creating for each patron an "interest profile."[2] Every week the file of user profiles is matched by computer against the articles indexed each week. The results are printed in a report that provides current awareness to the patron. *ASCATOPICS®* are also weekly reports similar to *ASCA* reports, but based on standard interest profiles prepared by ISI's information specialists.

HAS is the center of a considerable part of the Hungarian scientific effort. It maintains research institutes and laboratories, funds research at other organizations within the country, and works with schools, universities, and industry. As a result, its information services could be widely used.

The discussions between LHAS officials and ISI staff concerned the possibilities of their leasing *SCI* computer tapes, both for current and back years, along with computer software necessary to operate the *ASCA* and *ASCATOPICS* systems. In addition to programs for doing systematic studies, the LHAS was also interested in obtaining all the ISI printed citation indexes and other information retrieval tools.

A tentative proposal was made to officials of the Hungarian Academy, along with the suggestion that some of their staff members visit ISI to become better acquainted with ISI's operations and procedures. In September 1978, Beck, Braun, and Rozsa did just that, staying a week, during which time they asked for a formal proposal.

On May 24, 1979, a formal license agreement between the LHAS and ISI was signed. ISI would begin sending weekly tapes to Hungary by the end of 1979 including back tapes covering 1974-8 as well as the current tapes for 1979. In this way the LHAS staff could have operational computerized information services by early 1980.

In March 1980, as part of the overall agreement, a group of three ISI experts went to Budapest to help set up the center. Leading the group was Philip Sopinsky, senior vice president of production operations. He was accompanied by Scott Roberts, ISI senior systems analyst, who was to get the software operational on the HAS computer. Joining them was James Hofstaedter, manager of customer services, marketing, who would oversee the setting up of the *ASCA* profiles and train the personnel who would design new *ASCA* profiles. The system installed at the HAS is an IBM 3031, with a two megabyte (2,000,000) capacity. The system had been installed only three months earlier. As this system differs considerably from

ISI's, some major program and system modifications had to be made, especially with respect to the operating system.

Academy staff members were eager to see the project under way. Earlier in the year Braun sent out some 1,200 letters to selected scientists doing basic research and development. He asked them if they would be interested in receiving the *ASCA* and *ASCATOPICS* reports in their fields. By the time the ISI staff had arrived in Budapest, 650 had responded favorably. Since then another 400 scientists and specialists have signed up.

The system was set up and operational within three weeks. The ISI group returned to Philadelphia and since then HAS staff members have been producing weekly *ASCA* and *ASCATOPICS* reports for their patrons.

This ended the first phase of the implementation of computerized services. The second phase concerns the scientometric studies. In the spring of 1981 Malin will again travel to Budapest to give seminars on scientometrics and citation analysis. With him will be other ISI staff members who will help set up programs for these studies, and will oversee the Hungarian production. ISI will provide some basic programs for producing scientometric studies, such as one for extracting specific items, one for extracting authors, and another for "clustering." Clustering is a method of manipulating the *SCI* data base to identify the wide variety of scientific specialties represented in journals processed for this index.[3]

However, certain scientometric studies will require customized programming which the HAS computer personnel will produce themselves, with ISI's help.

Moreover, with special HAS-developed programs, along with ISI's data base and programs, other types of reports can be produced for HAS patrons. For example, retrospective searches tailored to fit *ASCA* or *ASCATOPICS* profiles could be produced. Potential uses are largely limited by patrons' imaginations.

As work progressed on the first stage of implementation of the computerized information services, as part of the same agreement, the HAS acquired the printed versions of all of ISI's citation indexes, including all the back years, the *Index to Scientific & Technical Proceedings* ™ for 1978 and 1979, and *ISI's Who Is Publishing in Science*® from 1967 through 1978. Because of the space involved, these volumes were installed in a special ISI reading room on the third floor of the large HAS headquarters.

Although such an installation was obviously not inexpensive, it is invaluable for HAS since it has put it in the forefront of national organizations able to provide complete international information services to its patrons. If you are interested in more information about this program please contact Morton Malin, Institute for Scientific Information, 3501 Market Street, University City Science Center, Philadelphia, Pennsylvania 19104, USA.   ©1981 ISI

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