IANI - Future Gateway for Interlending Communication

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1. Co-operation in Nordic librarianship
Nordic co-operation in the field of libraries, documentation, and information has long traditions. The first Nordic library meeting was held as early as 1926. In 1970 the first Nordic body in this field, NORDDOK, the Nordic Committee for Information and Documentation, was established. The aim of NORDDOK was to develop a network of documentation between the Nordic countries. Three years later, NFBS, the Committee for Co-operation between Nordic Research Libraries, started practical co-operation between scientific libraries. A result of this work was the start of NOSP, the Nordic union catalogue of serials, which still is running both as a microfiche and an online database. With NOSP it is possible to locate serials in more than 570 universities, institutes, and public libraries in Denmark, Finland, Iceland, Norway, and Sweden. NORDFORSK, the Nordic Co-operative Organization for Applied Research, was founded in 1960. NORDFORSK initiated the SCANNET network in 1974 and thus started the Nordic database co-operation.

In 1977 NORDINFO, the Nordic Council for Scientific Information and Research Libraries, was established and NORDDOK and NFBS were wound up. This new Nordic council took over all the responsibilities and activities from the old bodies, including NOSP and, some years later, SCANNET. SCANNET had at that time changed from a physical network to a co-operative body for Nordic databases. NORDINFO supports activities concerning information resources and systems in the Nordic countries. The IANI project, the Intelligent Access to Nordic Information systems, is, along with NOSP and SCANNET, one of the biggest and most important undertakings of NORDINFO.

2. The background to IANI
There are more than 4000 publicly available online databases in the world. In the Nordic countries the number is close to 400. Owing to the fact that the Nordic countries are five related but different countries, it is natural that the databases are spread among several different host organizations. Unfortunately, the diversity goes further, in that within the countries there are
dissimilarities among the online systems. According to the most recent figures, 148 different database hosts in the Nordic countries supply altogether 377 databases. With IANI in mind, perhaps a more relevant fact is that for searching in these 377 databases, one has to use 18 different named search languages, 64 menu-based, 53 'own', and 30 unnamed search languages.²

To get full advantage from all the information in these databases, the user needs some kind of help: help with the different 'log in' and 'log out' procedures, help with the various search languages, and so on. In recent years more attention has been paid to user-friendly systems because of the growth of microcomputers and, consequently, of new online users. In this context also the possibilities, or rather the difficulties, of getting hold of the original information arise.

In any case, with all these facts in mind, in 1986 NORDINFO initiated IANI to promote easy and uniform access to Nordic hosts. The IANI project started with an overview of existing search-aid software packages,³ and the conclusion was that none of the examined programs, such as Sci-Mate, Pro-Search and IT, provides an adequate coverage from the Nordic point of view.

The IANI software is being developed by Computer Resources International (CRI) in Denmark, the IANI command language (CL) by BRODD at the Norwegian School of Library and Information Science. The IANI CL is based on the ISO/DIS 8777.⁴ The program, developed for use in IBM-compatible AT-microcomputers, at the moment translates IANI CL into three different Nordic hosts' search languages. The hosts are FEK (The Computer Department of the Office of the National Librarian) in Denmark, LIBRIS (The Royal Library) in Sweden, and VTKK (The State Computer Centre) in Finland. More hosts and databases will soon be implemented. IANI has automatic log-on/log-off procedures, both menu- and command-based search facilities, and gives help with database choice. (The entire conversion of the different host command languages occurs by support of a local metadatabase comprising host, language, and database descriptions. The IANI feature includes automatic online updating of the local metadatabase from host metadatabases.)⁵ A global metadatabase, comprising all the host descriptions and the SCANNET database guide, is connected to one of the hosts. The IANI databases include some large library and union catalogues, which makes it easier for the IANI user to locate the desired publications, as Nancy Fjällbrant states in her report on trends in interlibrary lending.⁶ The IANI prototype will soon be finished, but the development work will be continued. The whole venture is funded by grants not only from NORDINFO but also from the Nordic industrial sector.

3. Interlibrary lending in the Nordic countries

As mentioned earlier, co-operation in the library field has long traditions in the Nordic countries, as have interlibrary lending and document ordering. For the future development of IANI various new facilities are planned. With especially the end users in mind, facilities for online ordering have been regarded as the most urgent. A young student participating in the IANI user
tests, asked after finishing his searches, "When do I get the real information?". Many new end-users will, without doubt, ask the same question.

Before the entire documents are obtainable in electronic form, there is a need to simplify and facilitate the acquisition of the original documents.

To investigate the situation in the Nordic countries, NORDINFO has ordered from BRODD a survey of online ordering facilities and systems. The survey includes analysis of the situation outside the Nordic countries and the state of standardization in this field. One of the most widely used systems for online interlibrary lending is the American OCLC with over 3400 participating libraries in 27 countries. No Nordic library is actually participating in the system but it is used here by some libraries for online loans. An interesting combination of electronic mail and interlibrary lending automation is the ILL system in Canada developed by the National Library of Canada. The ILL system includes all functions required for location, lending, and borrowing activities. The National Library of Canada has been using the OSI reference model as a well-developed ILL protocol — a standard to facilitate the exchange of ILL messages. Furthermore, many big international online hosts, such as DIALOG and ESA, are offering online ordering systems which are widely used in the Nordic countries. These big international systems, being not directly transferable to the Nordic library environment, nevertheless contain many notable features to build upon.

For the survey, BRODD contacted about 80 Nordic libraries. The report states that in the Nordic countries there are only a few systems with electronic ordering facilities. The situation is, on the whole, rather fluid as many libraries are now starting to use new cataloguing systems or improving their old systems. The report notes also that the existing online ordering systems are rather dissimilar and not standardized. Owing to this fact, it seems unrealistic to link them together in the same network for the moment.

The report concludes with a suggestion for an IANI document-ordering strategy, based on the NORDUNET university network co-operation. Every country has university networks with gateways to each other and electronic mailboxes based on the EAN- or other X.400-compatible software. Implementing an IANI online ordering network within already existing networks with mailbox functions would clearly reduce the investments in further developing software. The proposed model, including national IANI hosts, a global IANI host, IANI users, and various IANI libraries for document delivery, is ambitious and long-sighted. The global IANI host would, through its connection to the global metadatabase, give access to a lending library list, which could be downloaded to the users' IANI interface. The national host would establish mailboxes for all national IANI users and for the lending libraries. All the transactions concerning document ordering and delivery would take place directly between the IANI users and the lending libraries. According to another model, national IANI libraries would act as intermediaries in the lending traffic. These models and strategies will, together with the standardization work done in this field, form the basis for further development of the IANI online ordering facility.
4. The simple IANI online ordering facility

NORDINFO considers that one of the most important features in the development of IANI should be the possibility of directly ordering the original documents of the retrieved references. A principal aspect of the future IANI online ordering concept is that it will not be necessary to rewrite a reference in a special form, but that the results from an online search can be transferred directly to the ordering facility. However, the future strategy for an integrated document ordering system does not depend only on technology, but also on the infrastructure of the Nordic interlibrary loan environment. The obstacles to getting a working system are many but not overwhelming. They include the lack of standardization in document delivery and interlibrary lending, the variations in the policies of the libraries concerning customers and fees, and the technological differences in existing library systems.

Bearing in mind all these facts, the best way to start an IANI online ordering system and to improve the interurban lending service in the Nordic countries is probably a simple one. The stage of automation in Nordic library lending systems has not yet reached such a level that a comprehensive automation on the Nordic level should be appropriate. A simple system introduced step by step would be preferable. Later on, a gradual change to the BRODD model is adequate before shifting to the final solution based on international standardization. A close co-operation with Nordic interlibrary lending and document ordering experts will be a natural part of the development work.

The simple solution is based on an ordinary electronic mailbox system. A joint mailbox could be implemented in the global metadatabase of IANI. Libraries willing to supply the registered IANI users with document delivery service would frequently clear the mail box. The participating libraries would be designated ‘IANI libraries’. The mailbox should furthermore act as a switch to other electronic mail and online ordering systems in the Nordic countries. This would gradually result in a Nordic convention for document ordering and interlibrary lending. Such a flexible and adaptable model would enable NORDINFO to create a common policy for the interlibrary lending and document-ordering traffic in the Nordic countries. In this way an inter-Nordic document-ordering interface in IANI would be born. NORDINFO intends to start this experiment as soon as the IANI prototype is finished. A model of this simple IANI document-ordering network is presented in Fig. 1.

How the switch to other Nordic online ordering systems will be carried out has not yet been settled. It depends on the stage of standardization in this field. One possibility is to create a new ‘IANI ordering language’ interface in the same way as the IANI command language. The first thing would be to locate the publication and then translate the downloaded reference to the ‘right’ form for the library in question. It would naturally be much easier if all libraries accepted the same form.

The biggest problem in constructing an IANI online ordering facility is not technical but organizational. One would have to go through all the changes that must take place in the Nordic interlending environment before an automatic service is possible. Much work and many negotiations concerning
interlending policies in the various Nordic libraries will be required. This also introduces the need for looking at the interlending and document supply fees. I feel that the task of trying to standardize interlending and document-ordering habits and rules will be far more difficult and time consuming than was the first part of IANI.

However, to develop an online ordering facility that is more sophisticated than a plain mailbox system requires discussions about, and recommendations for, the future Nordic interlibrary loan strategy, including the utilization of standardization work already done in this field. One has to identify and examine the organizational changes that will be involved in an automation of interlibrary lending in the Nordic countries. There is also a need for an agreement on a Nordic level concerning co-operation and forms for online ordering and interlibrary lending. It is important to recognize that IANI cannot solve the organizational and administrative problems, though IANI can give the interlending organizations a tool to work on further and develop. In this manner we will get a real Nordic gateway for interlending communication.
References

9. Lunau, Carrol D. Canadian advances in the application of electronic mail and interlibrary loan automation. Interlending & Document Supply, 16(2) 1988: pp. 58-64.

The Author

Elisabet Mickos has a degree of M.Sc. Chem. Eng. from Helsinki University of Technology. She has been working at the Information Service of the Technical Research Centre of Finland (VTT) and is now engaged in Nordic co-operation mainly concerning online databases.