

MLIS/1/CT/03

# Unit 3: Electronic Document Delivery Service

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## Introduction & Definition

Document Delivery Service (DDS) is actually concerned with the supply of document(s) to the users on demand, either the original or its copy in print or non-print form, irrespective of the location and form of the original. Other information services such as current awareness service, SDI service, indexing and abstracting service, literature search service, etc. are aimed at guiding the users to the documents where required information is available. Whereas DDS actually locates the required document and supplies it to the requester either the original or its copy in print or in non-print form. DDS is an important service, since the value and importance of other access services are directly dependent on the efficiency of this service. For instance if a user, alerted by a current awareness service, requires a document and efforts are not made to supply the same to him/her immediately, then the availability of any alerting service however efficient it may be, will have no value for him/her. Thus, DDS adds value to other information service.

Earlier DDS was mainly concerned with “lending” of a document to the user over a specified period of time. The library or an information centre from its own resources and if not available within the library, then borrow from other libraries on inter library loan and lending it to the user.

The introduction of xerography in mid 1950s and the large scale use of photocopiers in libraries by 1970s, the DDS was confined to lending or inter lending of documents, but documents could be duplicated and permanently supplied to users. The libraries started using photocopier for the supply of copies of documents, particularly of journal articles and books. Most of the libraries still prefer supplying copies of journal article rather than giving the original, so that the original may always remain in the library and not get damaged with excessive use. The advent of computers, scanning and communication technologies in 1980s made it possible to store the documents in electronic form and transfer them electronically to long distances via telecommunication networks almost instantly. Now many libraries and information centres are using this technology for the delivery of documents to the intended users. This has greatly improved the service. Another trend is being observed, that is the availability of full-text electronic journals and books on the Internet by publishers and aggregators, offering online ordering and instantaneous delivery of books as well as articles from the publisher. The user can request an item directly from the publisher and receive the article at the location of his/her choice. The scope of DDS has expanded beyond the traditional libraries and specialised document delivery centres. The document suppliers, commercial online vendors, commercial publishers and e-journal service providers have also joined the document delivery market. The “ISI Document Solution” from Institute of Scientific Information, DIALORDER service from Cambridge Scientific Abstracts, “Document Detective Service” from Chemical Abstracts Service (CAS) are some of the examples

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## Increase in Demand :

The primary objective of any information system is to provide its users with timely access to the information they need so that it may be utilised by them to accrue maximum benefit. In recent years, due to advances in computer and telecommunication technologies the access to primary literature has vastly improved. A large number of electronic bibliographic databases accessible online as well as on CD-ROM in all the disciplines have emerged. The availability of these databases providing easy and timely access to published information has resulted in a great increase in demand for the original documents. Access to other libraries' online catalogues (OPAC) on the Internet, has further boosted up the demand.

## Characteristics:

The efficiency of DDS is determined by three factors, namely, speed, cost and satisfaction level. Ideally the DDS should be cost-effective, speedily delivered and should satisfy all the requests it receives.

Speed      (2) Cost      (3) Satisfaction Level

## of Document Delivery Systems/Models:

As mentioned in the preceding section, availability of electronic bibliographic databases providing ‘instant’ information and easy access to library catalogues (OPAC) around the world on the Internet have not only increased the demands for original documents but have increased user’s expectations for early as well as cost-effective delivery. On the other hand exponential growth of published literature, increasing cost of publication and declining library budgets have been making it more and more difficult for libraries to meet the demands of their patrons from their own resources. Libraries have been finding ways and means to meet the demands of their patrons despite these limitations. Some of the efforts made by the libraries are improvement in inter library loan services, resource sharing among libraries of common interests, development of specialised document delivery centres. More recently of joining library consortia to provide access to full-text electronic resources to their patrons. In this unit you will study how DDS has changed over a period of time and what are the recent trends

There are a number of national document delivery centres operating in the world providing document delivery services in different manner. Some of these centres operating in different countries are British Library Document Supply Centre (BLDS), London Spa, U.K.; Institute de l'Information Scientifique et Technique (INIST), France; National library of Medicine (NLM), U.S.A.; Canadian Institute for Scientific and Technical Information (CISTI), Canada; and NISCAIR (National Institute for Scientific Communication and Information Resources, Formerly INSDOC), New Delhi, India. These centres offer the services depending upon resources ranging from comprehensive centralised planned collection to decentralised unplanned collection.

A number of national document delivery service models have also been suggested by information workers in the field. Four national models suggested by Line (et al) in 1980 in UNESCO document are: i) A dedicated centralised collection, ii) Concentration on a few libraries, iii) Planned decentralisation, and iv) Unplanned decentralisation. In 1984 Vickers and Vickers described six types of models in an IFLA UAP programme document. These are: i) Dedicated centralised service, ii) Concentrated service, iii) Concentration on a few libraries, iv) Decentralised planned provision, supply and retention, v) Decentralised access, and vi) A regionally based system. In a conference on Inter Lending and Document Supply held in London, 1988, Hope E.A. Clement (International Conference on Interlending and Document Supply (1988: London)) suggested five composite models: i) A centralised lending collection, ii) A centralised lending collection with backup libraries, iii) A decentralised lending centre, iv) A network of interlinked networks, v) Separate networks, and vi) Unlinked and total decentralisation.

## Examples of Document Supply Centres

### British Library Document Supply Centre (BLDSC)

BLDSC ( <http://www.bl.uk/services/>..) is an example of partially centralised model with some backup libraries. It receives an average 14,000 requests per day and over 90% of them are satisfied. Over 87% requests are filled from BLDSC local collection, 2.4% from backup libraries in U.K. and 0.3% from location outside the country. Most of the requests are processed within 2 hours (for 2-hour service) to 2- 5 days (for standard service) from local collection. Delivery for standard service is by mail, courier, fax or Ariel within 2-5 days of receipt. While for 2-hour or 24- hour delivery, the documents are delivered by fax or Ariel. British Library collection covers all subjects and languages and include books (over 15 million), journals (over 260,000 titles), technical reports (5 million), patents (50 million), conference proceedings (433,000 titles), theses and dissertations. The whole collection is international with 30% published in U.S. and 70% of the requests are received from outside U.K. Its 74% requests are related to S&T. Of these 67% are for serials, 22% for monographs, 10% for conferences, theses, music and official publications. Many other major commercial suppliers (e.g. Research Alert, CitaDel, UNCOVER, etc.) use BLDSC as a resource due to its excellent collection. Automation is progressing at BLDSC which includes, among other things, scanning and digitisation of print and microform resources for document delivery purposes. One of the services offered from its electronic collection is “Inside”.

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s is an integrated copyright fee paid document delivery and current awareness service. Offered since 199, provides online access to table of contents of 20,000 highly used journals of BLDSC, together with title level info 250,000 journals held in British Library. It also includes details of papers from over 70,000 conference proceedings. The service allows to search and order directly over the web and receive article within as early as 2 hours. The "Secure Electronic Delivery" service, provides fast access to over 100 million documents that are available for digital scanning. Almost anything from library's huge catalogue collection whether digital, in print, or in microform can be delivered electronically to the requester's desktop within 2-hours, if requested. The Secure Electronic Delivery service, introduced in December 1, 2003, is based on Adobe Reader 6.0 software and Relias international scanning and delivery technology. On receiving the request the document is scanned and sent as encrypted PDF (Portable Document Format) which the requester can download, from British Library server within 14 days. British Library sends an e-mail message to the requester that the document is available. The electronic copy is available for collection from BL server for 14 days after which the file is deleted. The requester can make a single paper copy from electronic copy. Since, BL was the first to launch the world's fully copyright compliant secure electronic document delivery service for digital documents. In September 2002, it succeeded in obtaining extensive agreements for "secure electronic delivery" with many of the leading scientific publishers for digitisation and electronic delivery of documents from its entire paper based or microfilm collection.

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## Document Delivery Service of NISCAIR (Formerly INSDOC)

DOC ( NISCAIR since 30 September, 2002 ) has been offering DDS at the national level since its inception in 1952. The service is based on the decentralised collection of resources held in major libraries in India including National Science Library and Electronic Library of NISCAIR. The requests are received by mail, fax or e-mail. The location of required document is identified by using the computerised Union Catalogue of Scientific Serials in India (NUCSSI), compiled and maintained by NISCAIR. NUCSSI database contains serials holding information of about 850 science libraries in India. When requests for document delivery are received, they are sorted out on the basis of availability of source documents. Initially the requests are serviced from NISCAIR's own library collection, then from Delhi based libraries and finally requests are met from other libraries from India or foreign countries. Some of the important Delhi based libraries utilised for document delivery purposes are Indian Agricultural Research Institute Library, National Medical Library and University Library. Requests are received from universities, industries, R&D centres, from foreign countries and individuals. Maximum number of demands (over 80%) is for journal articles. Another form of document delivery service offered by NISCAIR is Contents, Abstracts and Photocopy Service (CAPS). Under CAPS service, subscribers receive the contents of selected journals (15 titles for individual subscription and 30 titles for institutional subscription ) every month from a list of 7500 Indian and foreign periodicals.

S service is available to subscribers on paper, through e-mail and on diskette. On browsing through the contents, users can place order for abstracts or copies of full paper. Users also have an option to place a standing order for abstracts of all the papers appearing in one or more chosen journals through Standing Order Abstract Service (SOAS). By subscribing to CAPS and SOAS, libraries can keep their users abreast of contents of latest journals of their interest at a nominal cost. Users on browsing can place order for full copies of paper, which are provided under Document Supply Service of NISCAIR.

**Journals Consortium:** NISCAIR is the nodal organisation for developing a “Consortium for CSIR laboratories for access to scientific journals”. The activity, range from creation to monitoring the access facility of scientific periodicals published by international publishing institutions. To start with, an agreement has been signed with M/S Elsevier Science publisher for 4 years to provide online access to 1000+ full-text e-journals through Science Direct to all CSIR scientists in 38 CSIR laboratories. The scientists can search, view and download articles for R&D purposes. The genesis for setting up e-journal consortium for CSIR laboratories goes back to 1993. CSIR is a network of 38 R&D laboratories in the field of science and technology. For R&D purposes laboratories were subscribing to foreign S&T periodicals. Till 1993 CSIR laboratories were acquiring 8000+ foreign periodical titles of which 1000+ were unique i.e. acquired by a single laboratory. Due to rising subscription cost of foreign periodicals and several other constraints, the CSIR laboratories had to cut down the subscription to many important S&T periodicals.

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the year 2000 the subscription to periodicals came down to 3356 titles of which 2500 were unique titles. With the availability of full-text e-journals on the Internet and the growing demands of research scientists for access to periodicals, an informal meeting of the heads of library and information centres of these laboratories was held in early 2001 to find out solution to this problem. Following the meeting, a Study Group was set up under the chairmanship of Director, INSDOC (Now NISCAIR). The Study Group submitted the report suggesting that a journal consortium should be set up to meet R&D information needs of CSIR scientists. To begin with, an agreement should be made with the publishers to provide access to fulltext e-journals to all the CSIR scientists. The proposal was submitted to Planning Commission for 10th Five Year Plan 2001-2006 on October 2001. The proposal was accepted. To begin with an agreement was signed with Elsevier Science publisher on June, 2002. CSIR labs at present are subscribing to 550 print journals. By paying 9% additional cost on the subscription cost of print journals, all scientists in 38 CSIR laboratories have now unlimited access to 1800 full-text e-journals of Elsevier Science. NISCAIR serves as a nodal agency, dealing with publishers and CSIR laboratories, monitoring the usage statistics. It has been observed that over 1400 (70%) of these e-journals are being accessed by the scientists for their study and research. With the success of this Consortium, it is planned to increase the access to 3000 more e-journals from other publishers.

## Electronic Document Delivery Systems

The system employing electronic technology for the receipt of requests and supply of documents are known as Electronic Document Delivery Systems (EDDS). “Inside” and “Secure Electronic Delivery” of BLDS are examples of EDDS. In this section you will study some of the EDDS operating in the world. In most Document Delivery Centres, maximum demand (ranging from 70% to 80%) is for journal articles. This is because; the scholarly journal is considered the most preferred medium for publishing the R&D results by researchers. The scholarly journal and its associated services such as current awareness services, indexing and abstracting services are undergoing significant changes due to electronic publishing and the Internet. The emergence of e-journals has made most significant impact. Traditional publishers are making available electronic version of their journals on the Internet. New generation of e-journal service providers have emerged. These include aggregators like Ingenta and Catchword, subscription-cum-aggregation agencies like EBSCO, portal services like aggregation services like Biomednet, bibliographic-cum-document delivery service like Infotrieve and Proquest online information service. Citation linking, across journals, and from bibliographic to full-text articles, has been another major development. New pricing models like pay-per-view and transaction-based models are emerging.

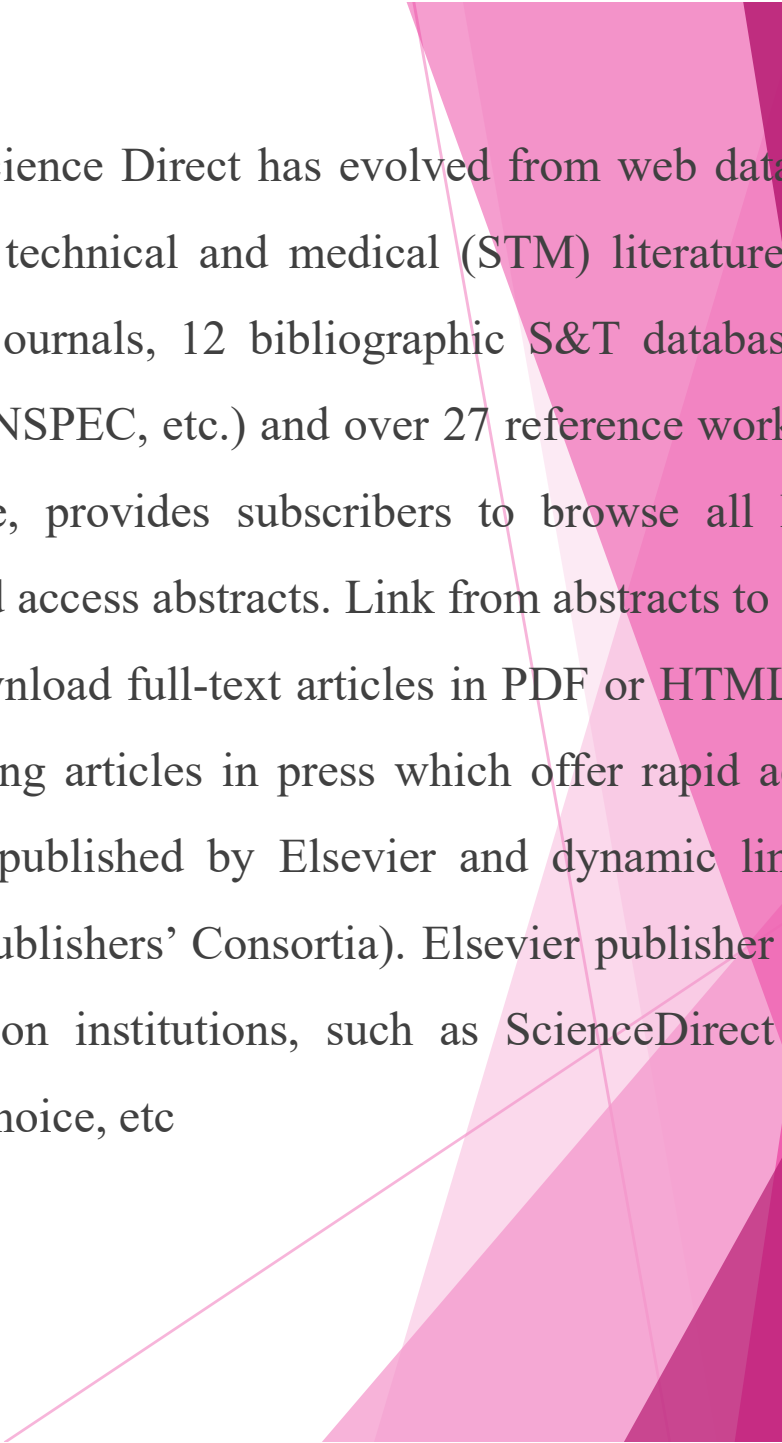
Article Delivery Over Network Information System (ADONIS)

Inter-Library Loan Service of Online Computer Library Centre (OCLC ILL)

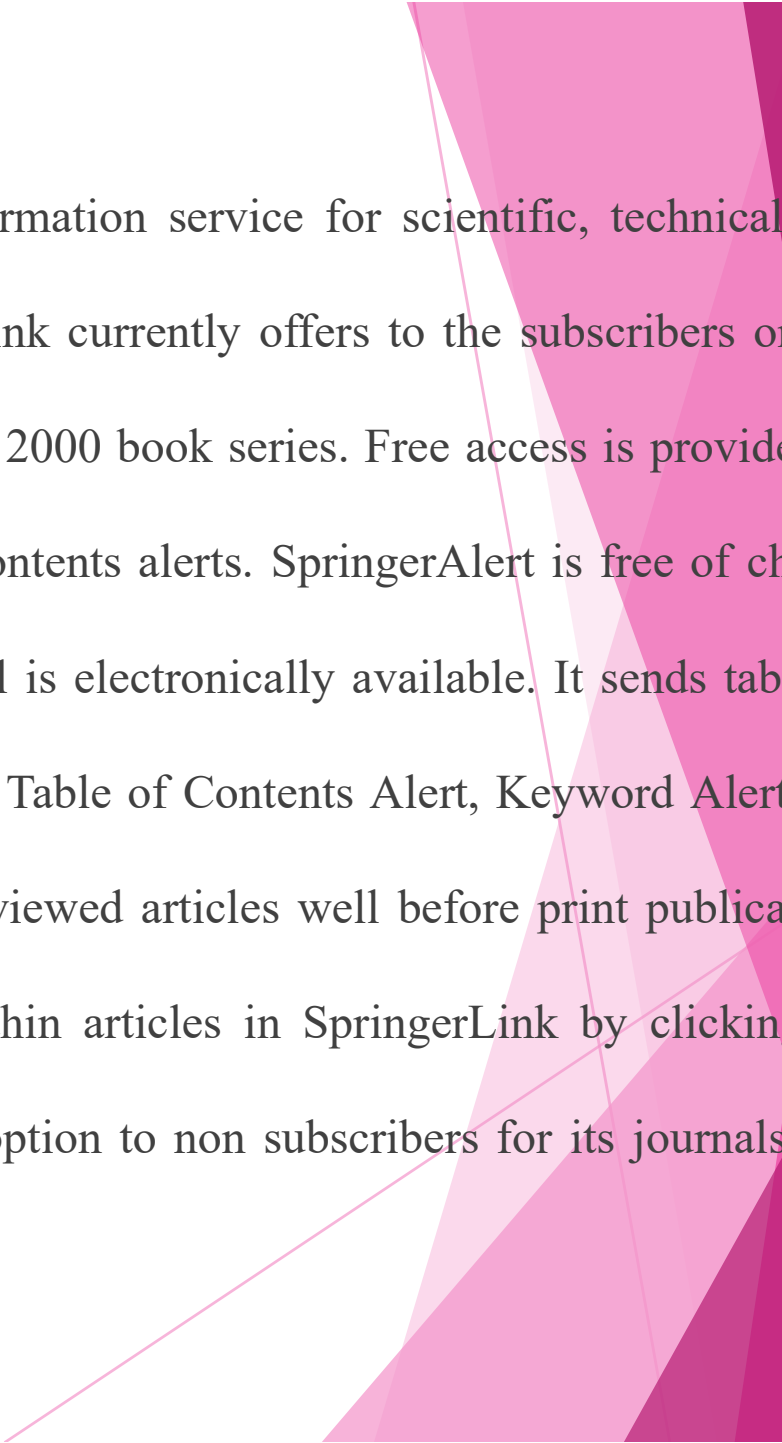
DOCLINE: ILL System of National Library of Medicine, USA

E-Journal Service Providers

The availability of full-text electronic journals on the Internet has changed the document delivery scene significantly. Full-text e-journals on the Internet provide a wide range of options for the user, ranging from searching the bibliographic databases, selecting the retrieved citations, viewing the relevant article(s) to the delivery of the article(s) electronically on the user's desktop. The publishers either themselves are providing their e-journals on the Internet (e.g., SpringerLink and ScienceDirect from SpringerVerlag and Elsevier Science publishers) or making them accessible through e-journal service providers (EBSCO, Infotrieve, Proquest, etc.). This section provides a brief account of such services available on the Internet.



ScienceDirect (<http://www.sciencedirect.com>): Launched since 1997, Science Direct has evolved from web data provider journals to one of the world's largest providers of scientific, technical and medical (STM) literature. ScienceDirect provides online access to about 1900 full-text (STM) journals, 12 bibliographic S&T databases (MEDLINE, BIOBASE, BIOSIS Previews, EMBASE, COMPENDEX, INSPEC, etc.) and over 27 reference works (Encyclopaedias and Dictionaries). ScienceDirect Web Edition service, provides subscribers to browse all journals available on ScienceDirect platform, link to table of contents and access abstracts. Link from abstracts to full-text article(s) is provided for most Elsevier journals and subscribers can download full-text articles in PDF or HTML to their desktop. Nearly 6 million articles are available online, including articles in press which offer rapid access to recently accepted manuscripts. The coverage includes 1800 journals published by Elsevier and dynamic link to journals published by other 170 STM publishers through CrossRef (a Publishers' Consortia). Elsevier publisher offers a variety of subscription and access options to libraries and information institutions, such as ScienceDirect Unlimited, ScienceDirect Limited, ScienceDirect Complete, ScienceDirect Article Choice, etc.



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**ISO ILL: The International Standard for Inter-library Loan:** ISO ILL 10160 and 10161 are ISO standards for inter-library loan. These standards provide technical definition of messages as well as set of rules on how to use those messages between systems. Many libraries that use multiple ILL methods, are implementing ISO ILL compliant systems, because they enable libraries to manage all their ILL transactions in a single database. Depending on the system, this allows them to take advantage of other system features such as copyright tracking or searching bibliographic databases. (<http://www.iso.org>)

**COUNTER (<http://www.projectcounter.org>):** In recent years there has been growing awareness of the need for an international effort, involving vendors, librarians and intermediaries, to develop acceptable global standards for measuring online usage. Launched in March 2002, COUNTER (Counting Online Usage of Networked Electronic Resources) is an international initiative designed to serve librarians, publishers, and intermediaries by facilitating the recording and exchange of usage statistics. In December 2002, COUNTER released a Code of Practice that provide among other things, guidance on elements to be measured, definition of these data elements, usage report content and formats, as well as on data processing. COUNTER will initially focus on journals and databases. E-books and other types of material will be covered in subsequent phases of Code of Practice. COUNTER is developed with the joint efforts of library associations, publishers associations, etc. COUNTER will also establish an organisational framework and technical/business model for on-line implementation and development of Code of Practice

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**THANK YOU**

