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COMMISSION OF THE EUROPEAN COMMUNITIES

Information Industries

IMPACT PROGRAMME

Information Industries

IMPACT
PROGRAMME

Cataloguing data can be found at the end of this publication

The Impact of the information revolution in Europe

A CENTURY ago when electric lights replaced gas, hotels in New York had signs asking guests not to try lighting the new electric lights with matches. Old habits remain, even when a technological revolution has taken place.

The revolution today is about information. It may mark the next century more in its turn than the revolution that brought electricity. Or, than the French Revolution a century before it. New technologies can bring information sources to our desk-top computer, new information can change the way we run our businesses or our lives.

The European Community is undertaking a programme responding to the new needs of the information market. It is not only attitudes that need changing but a whole range of barriers has to be removed. The opening of the Community market requires that issues such as privacy, intellectual property and easier access to information need to be resolved in a satisfactory way for all concerned.

Why? Because information has become a strategically important raw material. Top information costs top money. Industrial investments depend on critical analysis of facts and details. Decision-making in business, scientific research and daily credit transactions rely on rapid reference to databases or other forms of electronic information.

The strengthening of Europe's industrial position in the world will depend largely on how it masters the infor-

mation revolution. To succeed, Europeans must improve their decision-making skills and put to industrial use the scientific research for which they can be justifiably proud.

The power of the computer lies, not only in the vast quantities of information that it can store, but in its ability to index it, sort it and retrieve it rapidly when required. If you ask the right questions, you can quickly find the information you need.

In order to ensure that the user in Europe had cheap access to reliable information services, the European Community embarked on three action plans, 1975-83. The first concrete achievement was the creation of the entirely new service at the European level: a computer data network, Euronet.

This made it simpler to communicate across European borders, at a time when this was still expensive and often impossible. It also created, for the first time, a distance-independent tariff.

The European network was created at a time when few national computer networks, or packet switched networks as they are known, were in existence. Following the agreement with the national telecommunications authorities, Euronet was replaced by interconnected national networks in 1985.

Parallel with the creation of Euronet, the European Commission encouraged the formation of European databases and their use across the Community. The action plans and the later five-year programme, 1984-88, stimulated,
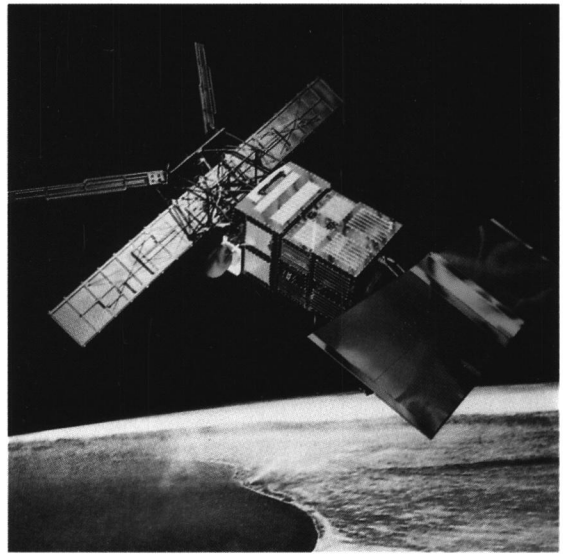
Before and after the introduction of electronic systems at the London Stock Exchange

European Space Agency Information Retrieval Service (ESA-IRS)

not only such 'online information', but international collaboration. More than one hundred projects were supported by the Commission. By the end of 1988, Europe was offering more than 900 databases on 88 computer hosts.

This *Direct Information Access Network in Europe* became known as Euronet Diane. Workshops and seminars were given in all the Community countries as well as in those countries which later joined Euronet Diane such as Switzerland, Finland, Norway and Sweden. Euronet Diane was promoted at numerous exhibitions and fairs. A newsletter called *Information Market* goes out to more than 45 000 companies, individuals and information specialists.

Many databases only contain references to articles published elsewhere. The Commission decided to demonstrate the capabilities of electronic publishing and delivery of full text documents. In a series of key projects called the Docdel programme, the Commission helped European firms demonstrate the commercial potential of advanced information services, including those based on optical disk technology. Online magazines were produced, including scientific and technical jour-

nals, new means were developed for storing and transmitting across Europe technical drawings and diagrams, such as patents.

Many users were dissatisfied with the variety of retrieval languages. So the Commission encouraged the introduction of a standardized way of interrogating databases, called Common Command Language. CCL consists of simple commands and, as it is now available on many hosts, avoids the necessity of learning many different techniques of extracting information from databases. The Commission also stimulated the creation of an intelligent interface to make finding information easier. A menu-driven system helps locate the right answers across many databases on different hosts.


5

Promoting European Impact

THE DEVELOPMENT of industry on a European wide basis requires improved information services across the Community. The action plans and five year programme were the first steps in promoting cooperation between the different participants in the European information market.

In 1989 the Commission embarked on the initial phase of a major programme aimed at responding to the increasing market problems and needs. Barriers which hamper the free flow of information for users — whether technical, legal or administrative — will be tackled.

Pilot or demonstration projects have been launched which will act as catalysts for the development of a Single Information Services Market and meet the need to create European products and services through cooperative efforts.

An action plan for a European information services market was approved by the Council of Ministers on 26 July 1988. Known as Impact, Information Market Policy Actions, the programme runs initially for two years with a budget of ECU 36 million. An Impact 2 programme is expected to be created for the years 1991-96.

The Impact programme aims at setting up a common information services market and has seven lines of action.
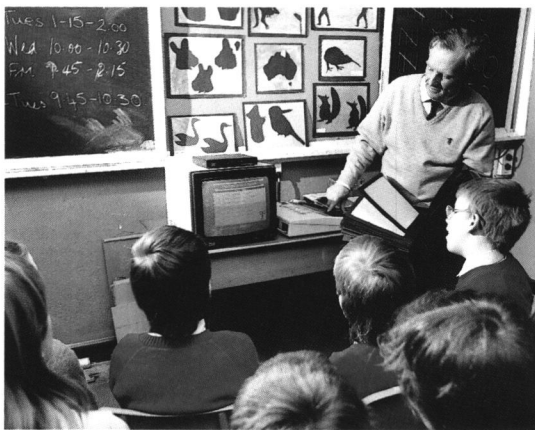
Electronic mail in schools

CD-ROM system for car parts
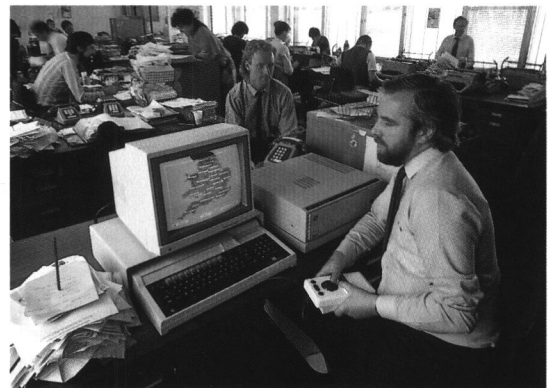
Optical information systems in editorial offices

1. European Information Market Observatory (IMO)

It is estimated that, for three out of five Europeans, their work involves them in some information related activities. Yet statistics of how the information service sector works and functions are still lacking. A European information market observatory has therefore been set up through a network of correspondents in Member States. These supplement the work of national administrations, companies and other organizations and improve the statistical understanding of the market for policy making purposes.

The Observatory and its network of expert correspondents in Member States improve the quality and availability of data on the information market


by collecting and publishing information according to an agreed framework.

It also carries out analyses which assist the Commission in formulating policy. The results of the data collection and analyses are made public.

2. Removal of technical and legal barriers

The Commission is investigating the nature of legal and administrative barriers and the possible means to eliminate them. If a diskette, for example, is offered free with a magazine, it is subject to quite different customs and fiscal regulations in Member States. Such problems create barriers for publishing firms and reduce access to potential readers.
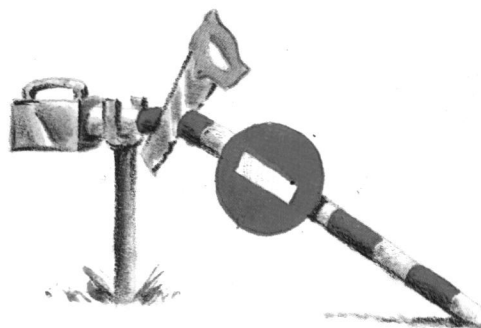
The monitoring and advisory work of the Legal Advisory Board initially addresses the following priorities: authentication of electronic signatures, computer fraud, liability in relation to database information, confidentiality of data base searches and protection of privacy.

3. Improvement of the conditions for transmitting and accessing information

Users of information services and providers of such services are assisting the Commission in defining simplified and more standardized access to information resources. Agreement is needed between users and major information providers for this to be successful.
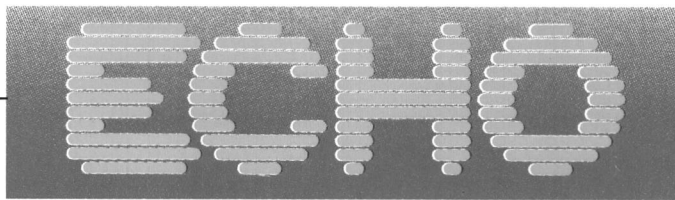
ECHO, the European Commission Host Organization,

☐ provides objective multilingual information on Community information services;

☐ gives guidance and training for users of information services;

☐ acts as outlet for innovative and/or experimental services;

☐ operates a European help desk for users.

ECHO services are aimed at helping beginners in online information and providing specialist databases in such areas as research, linguistics and for small and medium-sized enterprises.

Directories and most databases on ECHO are accessible free of charge and provide an excellent way of learning about online information. Regular workshops and training sessions are held in cities throughout the Community.

Some examples of ECHO databases are

* **CCL-Train,** a training database

* **Dianeguide**, a directory of the 900 databases on European hosts

* **Arcome** a detailed list of organizations active in the communications field

* **Dundis**, a directory of the United Nations databases and information systems

* **Brokersguide** is a listing of firms and persons who track down specialized information for customers

* **IM,** the full text of *Information Market*.

ECHO databases for translators include **Eurodicautom**, a nine language, terminology databank containing over half a million terms and abbreviations and **Imtrans**, a file of articles translated by the computer translation system, Systran.

A number of databases give descriptions of ongoing or completed research and development: **Eureka**, a description of some 250 Eureka projects; **IES-DE**, a file of information technology projects under **Esprit** and similar programmes; **EABS**, research partly funded by the Commission.

The databases **TED** and **Pabli** give details of open tenders on the market. The information is of special interest to small and medium-sized enterprises.

Innovative projects to demonstrate advanced information services include access by menu, voice and natural language.
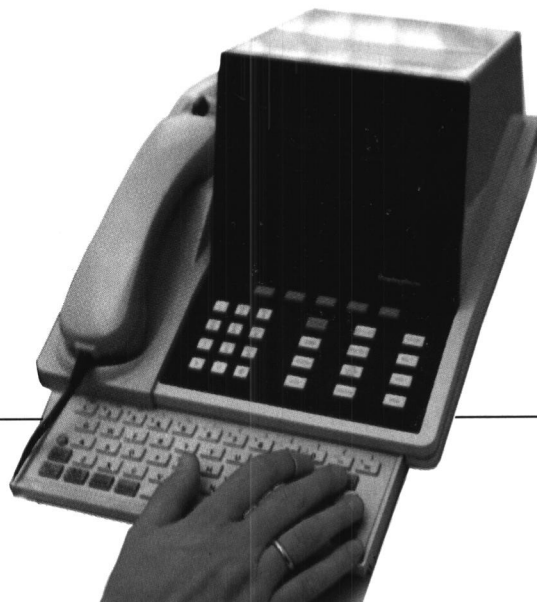
ECHO can be accessed using a personal computer or word processor and a modem. There is a direct modem line at 300 bits/second (+ 352 436428) or access through packet switched data networks (PSDN) with the network user's address (NUA) in Luxembourg: 270488112. To use the latter, users should contact their local telecommunications administrations for details of the national data network.
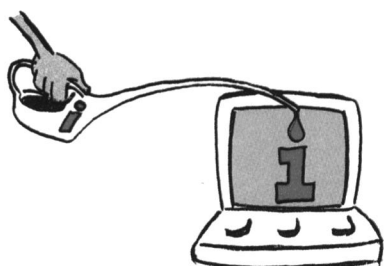
Public passwords are available for accessing a number of databases, for example, **Dianem**, is the password for the menu-driven version of **Dianeguide; Brokersguide** is the password for the database of the same name.

ECHO is also accessible on a number of electronic mail systems such as MicroLink (iNet Istel) or Geomail, and through national videotex services.

For further information and a password to ECHO databases write to
ECHO
PO Box 2373
L-1023 Luxembourg

Tel: + 352 488041
Fax: + 352 488040
Telex: 2181.
NUA: 0270448112

the role of the public sector in this area.

Guidelines are considered essential in order to help the public sector in decision-making related to making information available for external use and supporting the development of the information market; and to establish certain ground rules for avoiding possible unfair competition.
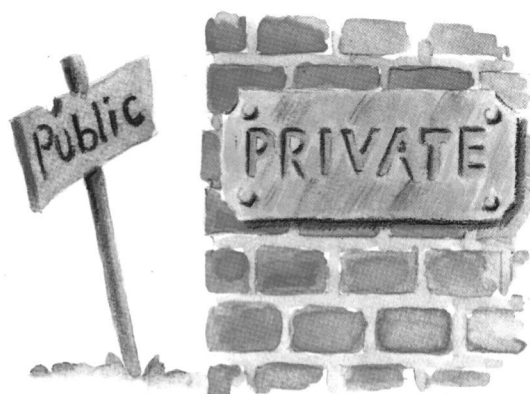
In conjunction with publishers and other information providers, the Commission is supporting the improvement of conditions of dissemination of information services whether by the postal services or the telecommunications administrations.

4. Improvement of synergy between public and private sectors

Governments and public bodies collect large amounts of data and information, as part of their routine functions, which could be made available to the private sector for the construction and marketing of electronic database services. The private sector is well placed to combine information from a variety of government sources, and its prime function is to produce and distribute information products oriented to the needs of the market. In order to develop and strengthen the information industry, a positive initiative is required from governments, to encourage the use and exploitation of public sector data and information. However, there are few convergent policies or guidelines within Member States relating to

The guidelines, which are advisory only, are aimed at providing a basic set of agreed principles and recommendations which can be used in the development of national guidelines in individual Member States. They are in no sense directives, but it is hoped that they will, by virtue of their production at the Community level, support national initiatives designed to promote the growth of the European information industry.

5. Launching of pilot/ demonstration projects

New kinds of services that are easy to use will open up new information systems to a broader public. To provide a

catalyst for the creation of such services and to provide a basis for their demonstration and evaluation, the Commission has launched a series of pilot and demonstration projects.

Six priority areas were chosen for these projects: tourism information, patent information, road transport information, information on standards, image banks, intelligent interfaces. The information industry has responded strongly. Support requested for projects amounted to ECU 150 million, compared with ECU 23 million available. Thus only one in ten or so projects could be selected for co-financing.

A materials databanks demonstrator programme had alreay been launched by the Commission under the five year programme and will be followed up in the Impact programme.

6. Promotion of the use of European information services

The Impact programme supplements the work of information suppliers by providing objective information in the form of multi-lingual directories about services available from Community suppliers. **Dianeguide** on ECHO is available online and in printed form in all Community languages. Comprising the most complete guide to European databases, CD-ROM and other sources, **Dianeguide** is a recognized point of departure for finding online information in Europe. ECHO also provides a number of training databases to help the online user and a free training diskette.

Echo is also creating and demonstrating new systems to make information access easier. Users may ask natural language questions to find information in **Dianeguide.** Another database will be offered whereby people can call in on the telephone and receive a voice response generated by the computer.

General guidance and training for users is provided by a strengthened international help desk. ECHO acts as an outlet for innovative services. In addition, awareness campaigns for the use of Community information services are undertaken.

Access to ECHO can be made via all operational national videotex systems, the national packet switched networks or directly with a modem connection to a telephone number.

7. Action in favour of libraries

The 90 000 libraries in the Community represent an invaluable source and
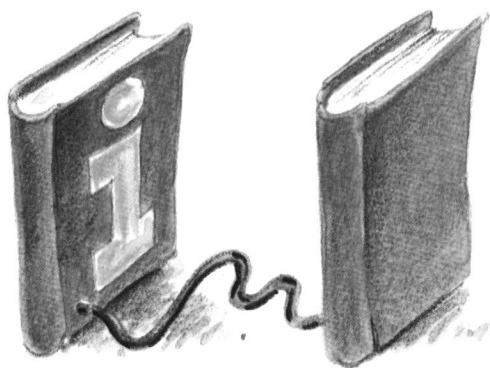
heritage of information. The increasing needs of companies and research organizations as well as the problems of preservation of information both underline the need to promote the use of new technologies in libraries. Following up the Council of Ministers' Resolution of 27 September 1985, the Commission has prepared a number of initiatives in the area of interconnecting libraries in the Community; support for the use of libraries, and encouragement of the use of new technologies and services. Because of the size and importance of Community libraries with their 1.2 billion books, a separate programme for libraries is being prepared.

New Community market prospects

THE CHALLENGE of 1992 has created a new, dynamic and enterprising spirit in Europe. A Single European market will bring further prosperity and jobs to the Community's 324 million population and vitality to its less-favoured regions.

The new information technologies and services, it is estimated, will create some two million new jobs worldwide by the year 2000. About 700 000 of them should be in Europe. Information services will present new challenges. Currently Europe has perhaps half the level of information services activity of that in the United States. However, the levels of economic activity are similar on both sides.

European entrepreneurs complain of the innumerable technical, legal and regulatory barriers. But knocking them down could create a new entrepreneurial spirit that has not been seen for a long time.

Europeans are talking to each other. More and more. Communication capacity is increasing by 40 % per year. The turnover of the information services market is increasing by about 25 % per year. Those directly involved in the information industry — database producers, information providers, publishers, librarians and telecommunications manufacturers — already number into the millions.

The users of information include practically everyone of us.

If you would like to know more about any of the Commission's projects in this field, write to the following:

1. Policy for information services: Mr Wolfgang Huber

   Information Market Observatory: Mr Serge Lustac

   User awareness and ECHO: Mr Axel Szauer

   Libraries: Ms Ariane Iljon

2. New information services: Mr Günter Steven

   Development of new information systems: Mr Piet Van Velze

   Interfaces between new technologies and professional information services: Mr Giorgio Trevisan

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