# The National Documentation Centre (EKT): A key role to the information flow to Greek community

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#### **Abstract**

The National Documentation Centre (EKT) of Greece, is a service unit of the National Hellenic Research Foundation (NHRF), and is the national institution for documentation, information and support, on science, research and technology issues. EKT's S&T Library services aim at the country's entire scientific and business community, universities, research centres, enterprises, public and private sector bodies. It provides Science & Technology (S&T) information services, operates the Science and Technology Digital Library, develops and promotes Greek digital content, such as the National Archive of PhD Theses, supports the automation and networking of libraries and develops the Union Catalogue of Serials in S & T Greek libraries.

With highly skilled, experienced staff and specialised technological infrastructure, EKT covers the scientific information needs all over the country. Furthermore, it monitors international trends, develops collaborations and networks and participates in national and European projects. The article aims to provide an overview of the services offered, their evolution through the years and outline how EKT is being established as an infrastructure of 'national use', serving the Greek libraries, the Greek scientific community and beyond.

**Keywords:** scientific and technical information, information services, library users, user needs, research library, Greece.

# 1. INTRODUCTION TO EKT S&T ACTIVITIES

The organization and structure of EKT is based on two principal activities: collection and dissemination of scientific and technical information.

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### 1.1. Collection and organization of S&T information

EKT's activities Main towards collection, organization and digitization of Greek S&T content, stand-out (i) the development and maintenance of the National Archive of PhD Theses (more than 16,000 records, 13,500 out of them, with full text digitised) (ii) the development and maintenance of the Union Catalogue of Journals of the Hellenic S&T libraries (27,000 records/journal titles from the collections of 233 libraries) and (iii) the NHRF's Institutional Repository "HELIOS" based on Open Access technologies, aiming to collect, preserve, and disseminate online, the intellectual output of the different Research Institutes comprising NHRF (e.g. research journal articles-either preprints or postprints- books, proceedings etc.). All above mentioned content is multidisciplinary, freely available online, practical and strategic tools for enhancing the processes of scholarly and library communication and also of national-wide value.

#### 1.2. Dissemination of S&T Information

As of the dissemination of the S&T information, this is achieved, through undertaking activities and developing services addressed to the whole scientific community as well to the general public. Services are based on the Library's scientific content (print and electronic) and on third party's content, through collaborations with content providers in Greece and abroad. EKT maintains one of the most accessible Library and reading room in Greece, established in mid 1950's. Its print collection is a comprehensive collection of 2.000 Scientific, Technical and Medical journals and welcomes all community users seeking for STM information and resources. EKT provides information retrieval services (bibliographic references, citation indexes and impact factors) by combining and exploiting a wide range of information resources, covering the core international literature in science, technology, medicine, social sciences and humanities. Additionally, EKT provides document delivery services of scientific articles published in journals, books, conference proceedings,

doctoral theses, technical reports, patent licenses, etc. When the requested documents are not traced in the EKT's library collection (of more than 12.000 journal titles and 8.500 ebooks) then they have to be located and ordered on behalf of end-users from other libraries and document supply centres in Greece or abroad.

The activities pertinent to content collection and organization (apart from HELIOS which is recently released) no outstanding changes have occurred during the last years. On the other hand, the EKT's activities and services pertinent to the dissemination of information, as well as the user need and usage patterns, have been significantly affected by the rapid developments in computers, microelectronics, and communication technologies that altered the library and information landscape worldwide.

# 2. INFORMATION DISSEMINATION SERVICES THROUGH THE YEARS

In order to identify and monitor the needs of the individuals and groups that form the library's service base community, different types of pertinent data about library users and their interactions with library services, and resources are being gathered (e.g. requests for services, attendance of library workshops, document delivery statistics, electronic reading room new memberships and renewals, usage of online information resources). Collecting and analysing statistics has always been any library's concern. For EKT, this is even more critical and complicated, due to the fact that the customer base of EKT's Information Services is multifaceted, and the offered services are not restricted to researches of its parent organization NHRF, but are targeted to the whole scientific community of Greece.

For over two decades, EKT, has been a unique establishment, providing valuable information services to its users, therefore the outcomes of the study of the usage data, reflect the information society dynamics flux nationwide.

### 2.1. Bibliographic reference services

The 10 years period taken for this study, is 1998 to 2008 which has been significantly affected by changes in the information environment.

During this period, there have been recorded data for 21.021 requests.

#### 2.1.1. Requests through the years

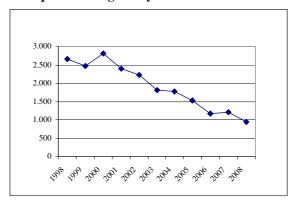


Figure 1: Total number of requests for bibliographic reference services.

#### 2.1.2. Distribution of requests per user-type

The 42% of the requests for this period is from the academic community, 28% from the private sector, 8% from research organizations, 19% from public hospitals and 3% from the public sector.

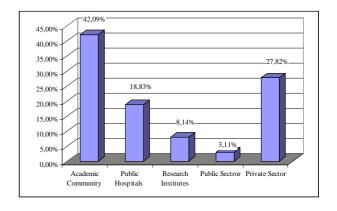


Figure 2: Total percentage of requests per sector

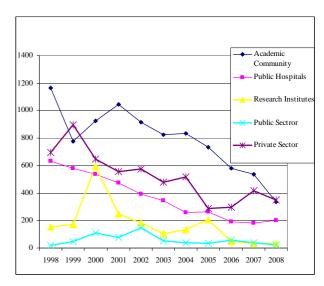


Figure 3. Distribution of requests in sectors through the years

### 2.1.3. Distribution of requests per subject category

The requests from the biomedical sciences comprise the 52% of the total requests

Subject Category	Percentages
Biology	4,91%
Education	3,94%
Medicine	46,74%
Business &	
Economics	2,40%
Arts & Humanities	2,23%
Physics	4,08%
Chemistry	4,19%
Psychology	5,53%
Others	17,94%

Table 1. Subject categorization of requests

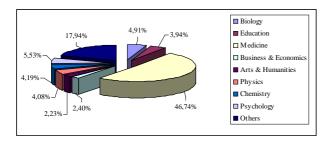


Figure 4: Subject categorization of the requests

#### 2.1.4. Outcomes

Data show that the decline accelerates with time with a drop of about 7 % in the last 10 years.

This trend is known to information circles as "disintermediation" and have the same roots with the depreciation of the commercial products (e.g. A&I databases, CD-ROMs etc.) which have traditionally been used, in order to process the bibliographic reference requests.

The reasons are multiple: (1) users that come from the medical sector (who always comprised the majority of the given service's users) alternatively access PubMed, that has been available, free on the Internet, since the mid-1990s. (2) the proliferation of digital information retrieval resources and the explosive growth in access afforded by the Internet (3) information retrieval is now supported by end-user-centric interfaces, offering the ease of point-and-click and there is no need for expertise in command languages. (4) users can obtain, at least the bibliographic data and abstracts of scientific articles via most publishers' websites or Google Scholar (5) usergroups from pharmaceutical sector (e.g. pharmaceutical corporate users) have obtained access to online full text resources in order to ensure high-speed and copyrightcompliant electronic delivery to serve their needs and finally (6) R&D activities are declining in Greece

### 2.2. Document Delivery services

The 10 years period taken for this study is 1998 to 2008. During this period there have been recorded data for 175.376 requests.

#### 2.2.1. Requests through the years

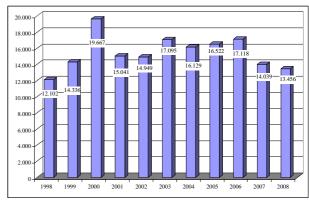


Table 5. Total number of requests in Document Delivery
Services

#### 2.2.2. Distribution of requests per provider

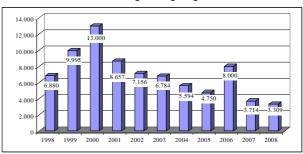


Figure 6: Total number of requests processed by libraries from abroad.

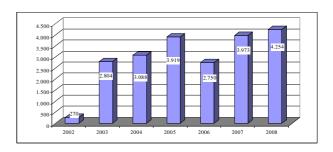


Figure 7: Total number of requests processed using EKT's Digital library and print collection content

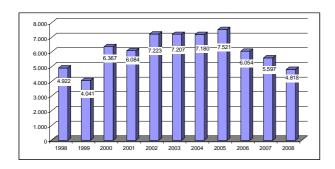


Figure 8:. Total number of requests processed using the Greek Library Network

#### 2.2.3. Outcomes

Data show that the number of requests for full-text documents processed through the decade, do not have substantial variations from year to year. There is a noticeable stability of the ordered documents of a about 15.000 requests per year through the decade. The reasons could be: (1) unlike the bibliographic reference information, the availability of full-text of scientific documents is not-free-of-charge to internet users, but requires either pay-per-view or journal subscription. Although the quickly evolving landscape of open-access publishing facilitates the full open access to articles, the impact of Open Access Journals (OAJ) on traditional subscription-based journals of high quality (e.g. with high impact factor) is not, yet, visible. (2) the majority of the particular service's users come from the private sector. This type of users cannot afford to maintain numerous, "just-in-case" journal collections, however their need for high-speed "just-in-time" document delivery services is inelastic, due to their strong competition and constant pressure to keep-up with the latest developments in their area.

The figures also show that, there has been a noticeable change in the distribution of the resources that are being exploited, in order to obtain the documents. One can notice the decline in orders that are addressed to libraries from abroad (e.g. BLDSC, Subito, etc) in favour of the EKT's library resources and other Greek library collections. This is mainly due to the widening of EKT's electronic collection through new subscriptions and collaborative schemas, and at the same time the enhancement of the functionality of the Greek Network of S&T Libraries through the years.

# 3. ADJUSTMENTS BASED ON USAGE FINDINGS

In the context of the rapid changes of technology, information production and user's information seeking behaviour and after systematic year after year observation and analysis of the usage data, EKT has proceeded with, either redefining its offered services, or design and introduce new:

# 3.1. Facilitation of disintermediated access to information

Encourage the direct and unhindered access information through:

- increasing the available workstations, of the Electronic Reading Room, from 8 to 20
- offering WiFi services, with free access to internet for all library visitors
- better organizing the available electronic information resources of the EKT's Digital Library

### 3.2. Improve the quality of services

The disintermediation left the EKT services with users of higher expectations, more demanding for high-speed, high-quality services and for lesser popular, hard to find, material and information. The experienced EKT's personnel retrieve and obtain the requested material for them, by combining different information resources and by broadening its collaborations with content providers in order to compose a full package file that will satisfy the user's needs covering all kinds of information carriers.

Today, placing a request to EKT's services is easy and quick since any user can complete and send an electronic form, follow-up the request and even receive the results electronically.

# 3.3. Customized services to the scientific community

With the exploitation of specialized tools as Web of Science, Journal Citation Reports, National Science Indicators, National Citation Reports, EKT offers a service targeted to research policy makers for research assessment and research management. The compilation of pertinent data is done with objective, quantifiable and repeatable bibliometric practices, to produce information and data to help in evaluating the research landscape and trends, in national and international level.

Specific current-awareness information retrieval and document delivery services are offered to specific groups of users (e.g Paedagogical Institute, pharmaceutical companies) in their field(s) of specialization, under the terms that are being pre-defined and mutually agreed.

# 3.4 Beyond "commercial" information resources.

Following the international trends that favour the progress of Open Access (OA), EKT overtakes an active role in supporting the free, immediate, permanent, full-text, online access to digital, scientific and scholarly material for any user across the web. This is expressed by developing two main models in providing open access: (i) Open Access Institutional Repository HELIOS, is a digital collection of research articles preprints (journal articles before publication), postprints (journal articles after publication), theses, monographs, technical reports, working papers, etc. that constitute the NHRF's scientific output (ii) EKT has taken the initiative to develop, with the collaboration of the NHRF and other research institutes, the open access scientific journals in the disciplines of Humanities, Biology-

Biotechnology, Chemistry and Medical Studies: Byzantina Symmeikta, Tekmeria, The Historical Review/La Revue Historique, INR/NHRF Newsletter, INR/NHRF Research Notebooks.

#### 3.5. Training

Over the years statistics and user feedback indicate that library usage and library service delivery, undergo significant changes. In order to be able to effectively contribute in this hybrid environment, the existing staff needed to strengthen its knowledge and maintain good "contact" with the new environment. To pull-off this, library staff is present to numerous meetings and discussions, is trained to all aspects of the offered services (even in to those not directly involved) and also is encouraged to give feedback and thoughts on how is best to develop, plan and redefine information dissemination services. The idea is that staff, regardless its area of responsibility, will be able to support and give directions to a library user on whatever that is. In the beginning, this scheme, lead to confusion about roles however it proved to be a good solution as there has been an increase of the available support-points.

At the same time, numerous seminars are organized, for groups of users of specific information resources (e.g. WoS citation index databases, CSA etc.)

### 3.6. Promotional approaches

As a governmental organization, EKT receives public funding in order to be able to accomplish its objectives. Therefore, the income from services is not considered to be a critical source of revenue. However, due to financial constrains, funding cutbacks and increasing competition by other means of information dissemination, there is a concern to prove productivity and accountability. In order to do so, there is a need to determine the target audience, their information needs and which areas should be developed. Consequently, there is a need for a marketing action plan. In practice, EKT undertakes a range of promotional activities rather than formal marketing strategies, as the following:

Since EKT's Library, as a physical place, is welcoming, located in the center of Athens, easily accessible by all public transportation means (metro, bus, trolley), aesthetically pleasant and with minimal restrictions as for the origin of its walk-in-users, It has been decided to use the opportunities that this presents, in order to raise awareness of the Library's role, to improve user understanding of available collections and services and also to propose potential uses of the library (e.g. as a collaborative workspace, place to meet and study). Increase of the library visitors, leads to increase of their awareness of other information services that are offered as well.

Various means of publicity have been exploited: press releases to newspapers or newsletters, distribution of annual report of activities, presence in a television broadcast of the National TV Channel, video in youtube.com, flyers highlighting the services offered to certain specialty groups and distribution of them in conferences, meetings and events of third parties etc.

Additionally Even if it is obvious that EKT's Library collections and information resources are not suitable for school student's level, numerous of students-in-groups visits are scheduled, in order to become familiar with library services and electronic information resources, as they will probably be the future library users.

Realizing that promotion is only a part of a holistic marketing strategy, EKT created a "Publications and Marketing Department" to develop a more formal process in terms of marketing.

#### 4. TO CONCLUDE

Since the 80's, when EKT was established, there is no similar organization in Greece, in terms of the width of S&T Information services and the miscellany of users. In the context of rapid changes that have profound impact on library's collection management, user behavior and user needs, EKT seems to be prepared to adapt rapidly and continue to remain loyal to it's vision to provide access to scientific knowledge for its present and future users. With its experienced and informed personnel, willing to keep in touch and adapt to the changing hybrid publishing and library landscape and to incorporate the new technologies, EKT will continue to play a significant role in the S&T information collection and dissemination in Greece.

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