

New Module for Secure Electronic Resource Sharing in Turkey

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Abstract:

ANKOS (Anatolian University Libraries Consortium) has been established in 2000 to enable collaborative efforts among university libraries towards an increase in the support provided by libraries to education and research. ANKOS aimed to provide access to the largest possible e-content in optimal cost for university and research libraries in Turkey. This initiative has shared the investment costs for e-resources within the “economy of scale” paradigm, and has enabled access to the global information network for the Turkish community of academicians and students. ANKOS Collaboration Group has been formed in 2006 to lead document delivery and resource sharing activities among member libraries in Turkey. A major outcome of this group is the KITS (Interlibrary Loan Tracking System) that has started its operation in 2008. KITS is developed to manage all resource sharing processes in an online platform. Since its inception, KITS has continually increased its member size and operation volume. According to feedback by ILL librarians and to meet the requests supplied by them, KITS has been under continuous development. Recently, a new module has been implemented that realizes sharing of electronic documents: Electronic Document Delivery module is the subject of this paper.

Keywords: Electronic document delivery, interlibrary loan tracking system, university libraries, Turkey

Sharing of e-resources, license agreements and copyright issues

In today's world, information centers are global cultural centers providing information services to their users without regard to location and time. With the possibility of global online access, they perform functions beyond those supplied by traditional information warehouses with printed resources only. By supplying access to electronic resources and by converting their collections into electronic environment, information centers can respond to the needs of their users in real time with the help of computer and communication technologies and Internet. Uninterrupted access to information has become one of the topics of high priority today. Interruptions for a few minutes cannot be tolerated by many groups of professionals. Therefore, one of the main responsibilities of information professionals is to take all precautions to supply an uninterrupted information service. (Henkeloglu, 2012)

Information technology allowed use of electronic information sources such as bibliographical and full text databases, e-journals, e-books, open archives and web pages. Furthermore, advances in software applications and the competition among database provider/distributor companies have resulted in more user friendly resources with more effective functionalities and larger scope. A substantial gain has been achieved in the time and labor spent by scientists to utilize information resources so that they can spend their valuable time for their own research.

E-resources exhibit many special services and advantages: the user can choose the most appropriate interface for interaction; authority files can be utilized with the easiness supplied by hypertext links; ability to read, print, download full-text articles or documents with full-text links in databases; possibility of repeating the search with predefined strategies; and the possibility of customization in order to increase efficiency (Bahsisoglu, 2006)

In our today's library environment, sharing of resources via ILL operations is inevitable as e-resources have found widespread use and libraries spend a considerable amount of their budgets for e-resources. In Turkey, state universities have spent 20 Million TL (app. 10M USD) for print resources whereas they have spent 66Million TL (app. 33M USD) for electronic resources in 2013.

The transformation from print format towards electronic format continues, as described in the article of Massie (2012). Libraries not only acquire newly created content in electronic format, but they also convert their print collections into electronic format. Those publications are made available not only to the internal users but also to external users. For this purpose publishers, librarians, authors, lawyers, and academicians continue to work in order to find a reasonable solution in issues related to the access of those digitized publications. Hence, ILL will stay to be a fundamental operation for nearly all libraries.

World Share module used by OCLC and RapidILL used by more than 200 universities worldwide can be considered as best practices for ILL activities. The main feature in those systems is sharing of electronic resources according to national and international copyright laws and ILL restrictions imposed by license agreements. Similarly, systems such as RapidX, ILLiad, and Odyssey are used for ILL operations all over the world (Delenay and Richins, 2012).

Access policies to electronic resources are defined in legal documents of fixed term agreements named as license agreements or site licenses. Each license agreement contains sections about pricing, usage policy, user restrictions, access, and penalties. For printed

resources, countries have their own legislation about lending, sharing and reproduction by photocopying based on their copyright law, e.g. the CONTU (National Commission on New Technological Uses of Copyrighted Works) in USA. In Turkey, the Intellectual and Artistic Works Law prepared by the General Directorate of Copyrights, aims standardization for especially printed materials. However, there is still no regulation or consensus about sharing of e-resources via ILL neither in Turkey nor worldwide.

ANKOS signs license agreements with publishers for use of electronic resources. ANKOS shares all detailed information about its agreements, such as terms, dates, authorized user groups, restrictions on usage of product content, payment conditions, and special conditions with its members in the web pages of ANKOS under the title Rights-Restrictions. Those pages also include terms about the ILL rules imposed by the license agreements (Figure-1).

Yetkili Kullanıcılar	Öğrenci, akademik ve idari personel, dış kullanıcılar
Ders Paketleri	Ürün içeriği ders paketlerinde kullanılabilir
Elektronik Rezerv	Ürün içeriği elektronik rezervde kullanılabilir.
ILL Kuralları	Ürün içeriği ILL amaçlı kullanılabilir ancak yalnızca basılı kopya sağlanır.
Ödeme Koşulları	Fatura tarihinden itibaren 90 gün ödeme süresi vardır
Sözleşme Süresi	01.01.2010-31.12.2012
Kullanım Koşulları	
DDP İndirimi	Anlaşma metninde belirtilmemektedir.
VTS	Zehra Erdem (Orta Doğu Teknik Üniversitesi)

Figure-1: ANKOS internal page for rights and rules, accessible by authorized users.

Member libraries of ANKOS carry out resource sharing activities using KITS according to those ILL rules of the license agreements.

KITS Secure Transfer Environment

Two more important tables have been created to implement the secure file transfer system to the KITS database. The connections of these newly created two tables with dissertations/book chapters and papers request tables given in Figure 2.

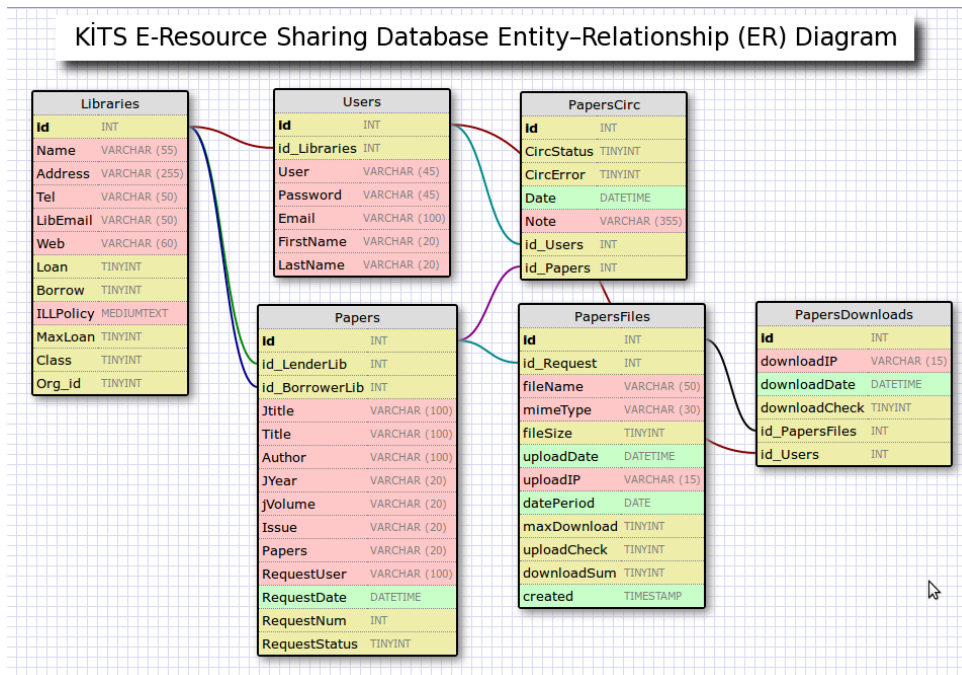


Figure-2: KITS e-Resources Transfer Database ER Diagram.

The feature of online document delivery in KITS has been enabled by the addition of the Thesis and Book Chapter Module. Based on the experience and feedback obtained in the use of this module, that feature has also been added to the KITS Papers module. There are various motives that cause electronic document delivery. That electronic document production has become easier can be regarded as one of the reasons. There is another special feature of Turkey in this issue: Istanbul University Library is a physical repository library. This library has no possibility of delivering books via ILL to other institutions. Therefore, the electronic document delivery module has brought great convenience both for the supplying and requesting libraries. The main advantages of the KITS electronic document delivery module can be listed as follows:

- **Convenience:** Labor and time spent for filing, envelope and label preparation, posting etc. have been reduced dramatically for both the requesting and the supplying library.
- **Speed:** Document delivery operations are carried out within a few days instead of weeks.
- **Price:** Absence of photocopy and posting costs is a significant advantage for the end user. Meanwhile, it has to be mentioned that all operations in KITS are free of charge. Furthermore, there is no means in KITS available to the supplying libraries for charging a cost for the documents supplied.
- **Security:** Security in KITS electronic document delivery can be examined under several topics such as document integrity, prevention of intervention by third parties, and system security. Those features are explained in more detail in the following sections

Use of the System

Thesis and Book Section, and Papers module of KITS, as a document supply automation system, are comprised of two sections: request and supply.

The flowchart of dissertation/book chapters and paper requests as shown Figure 3.

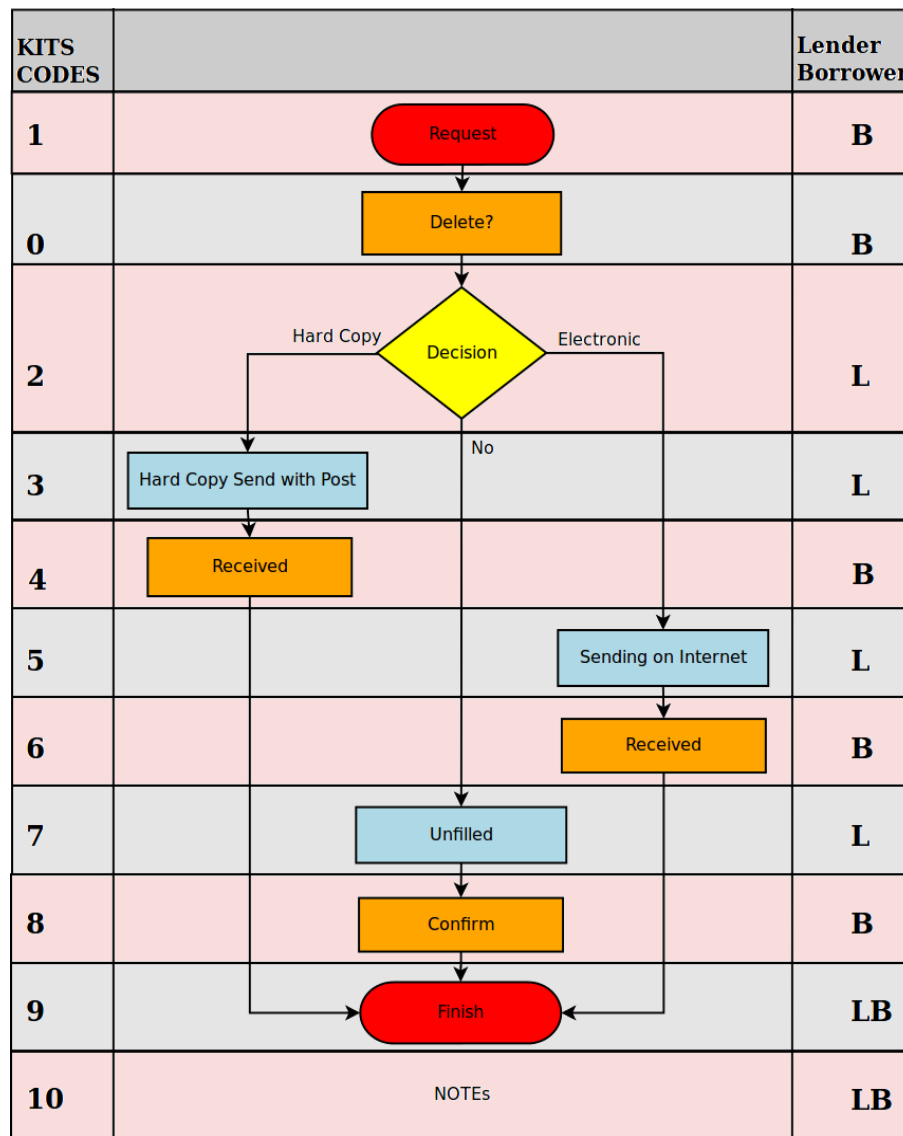


Figure-3: KITS e-Resources Processes Flow Chart

Explanations:

The process starts with the input of a request (1) to the system. Due to several reasons, such as erroneous requests, a request may be canceled (0). The requester has the possibility to cancel the request until the request has been processed by the lender. The lender has three options when a request is processed:

- The request is accepted and the document is sent via post (3).
- The request is accepted and the document is sent electronically (5).
- The request is rejected (7).

In each case, the requester has to respond to the decision of the lender. In case of acceptance, the requester presses the “confirm” button (8) to indicate “received” (4 and 6) status. After that, both the requester and the lender may close the request (9). At each phase of these transactions, both institutions can send messages to each other via the KITS platform (10). Messaging may continue until the request is closed.

Related screen captures of those sections are given in Figures 4. and 5.

Processed Request

<- Previous Record Next Record ->

Request #	Journal Name / ISSN	Title / Author	Year, Volume, Issue, Pages	Request Date	Requester	Borrower Library	Lender Library	
12220	Comprehensive composite materials TA418.9.C6 C66 2000 c.6 / 0080437249	The Composites Market / Michael G. Bader	2000 / 6 / - / 1-13	07.05.2014	Cavidan Parladi	Sabancı Üniversitesi Bilgi Merkezi	İTÜ Mustafa İnan Kütüphanesi	Print

Current Situation of Request	Transaction Date	Note
Requested date:	07.05.2014 12:05	
Arrival date:	09.05.2014 16:05	

Notes:

Yes, send this note as an email!

Request cannot be processed

Item posted by mail service

Item uploaded as file

File Upload:

Maximum file size: 2MB

File... No file selected.

Down. Duration: ▾

Maximum Download: ▾

I Agree the Licence [Read the license](#)

Figure-4 : Paper Request Screen

Figure-5: Dissertation / Book Chapter Request Screen

The requesting library has no option to specify a prerequisite how the document will be supplied by the supplying library. The supplying library is free to choose the method of delivery: via post or electronically the librarian has three options to respond to a request made to the library:

- The request cannot be fulfilled
- Request is fulfilled and the document is sent via post
- Request is fulfilled and the document is loaded to the system electronically.

The librarian has to carry out the following operations (see the screen in Figure-3) when a request is accepted to be fulfilled electronically:

Firstly, the supplying library has to approve “KITS Electronic Document Transfer License” (Appendix-1). This license contains binding statements for both the requesting and supplying libraries. Surely, they are not much different than the license statements in classical methods. They contain reminders about prevention of rule abuses that can be found in electronic document exchange.

Generation of Electronic Documents and their Upload to the System

The system is configured to upload files in the following formats: multi page tiff, e-pub, doc(x), and pdf. A large portion of the files uploaded to the system are pdf files. ANKOS web page also offers an online tool to generate e-pub files from scanned images named online image2epub (Celikbas, 2011). Even though the process of generating files in e-pub format from scanned images is easy, this format is not widely used in ANKOS as e-pub viewers are not widespread and use of images only for generating files does not seem to fit to the philosophy of this format.

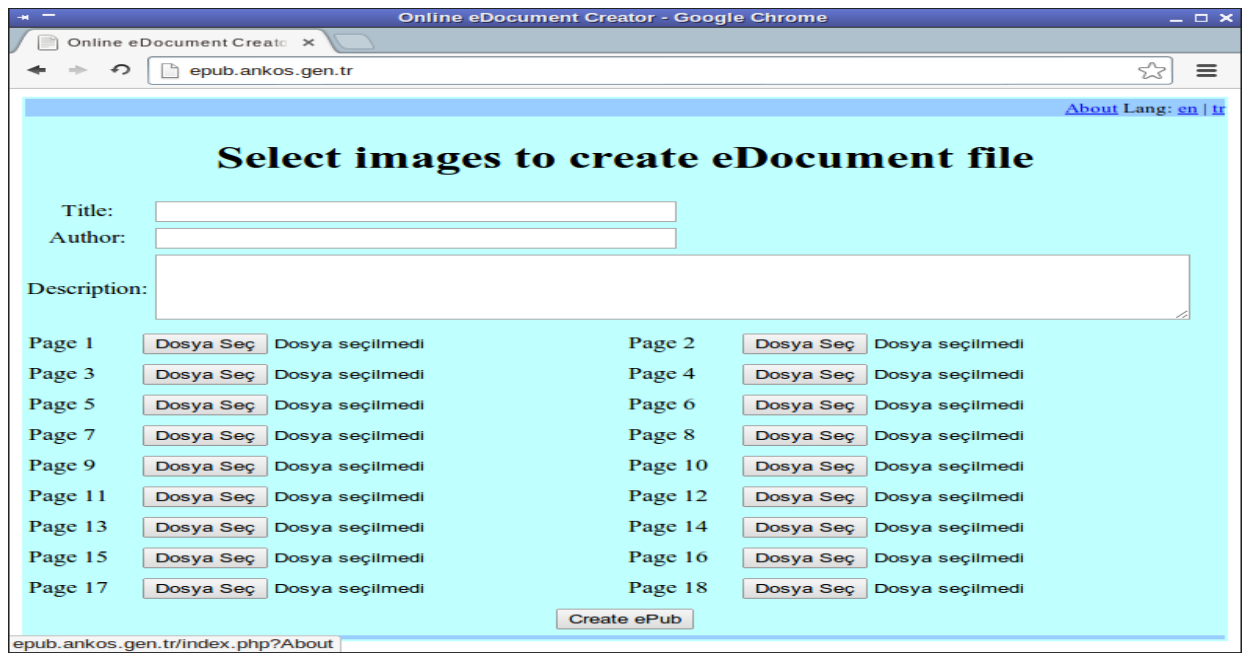


Figure-6 : Online image of e-pub web screen.

File Upload: Files of maximum size of 50MB can be uploaded to the system. Only one file is allowed to be uploaded for each individual request. There has been no request from users to increase these numbers up to now hence they seem to be adequate.

Download Period: This option specifies for how many days the document can be downloadable after the document is supplied to the system. The supplying library may choose duration between 1 to 16 days where the default value is 10 days. After this period, either the file is deleted or its download is prevented by means of the file manager until it is deleted.

Download Count: The download count is a very special property that limits the requesting library. The supplying library specifies a download count limit between 1 and 5 for each request. Then, the file cannot be downloaded for more times than this limit.

Properties of the File Download Manager:

- All file download operations are managed by the download.php file.
- download.php takes the file name to be downloaded as its argument.
- download.php reads information from the database, and checks download privileges. If the privileges are adequate, the requesting library is granted permission to download the file.

Security

All files uploaded to the system are stored in a directory without access from Internet. The security of this directory is achieved by the following rule sequence:

```
content of the file htaccess  
order deny,allow  
deny from all  
Options -Indexes
```

Download of the files stored in this directory are done by the download.php file. The following checks are done in order to guarantee secure transfer:

1. Has the requesting library logged in to the system as KITS member?
2. Are the license statements read and approved?
3. Does the library try to download the file for which the library has been granted permission?
4. Is the file downloaded within the permitted period of dates?
5. Did the file reach the maximum download count limit?

After these five security stages are passed, the file is sent to the requesting institution.

Future Plans

A pilot use of KITS in Balkan countries, Middle East, former Russian countries, and North Africa is planned by means of protocols to be signed with ANKOS. As a result of this collaboration both resource sharing activities and academic relations will be enhanced. Regions and countries to take part in the pilot application are given below.

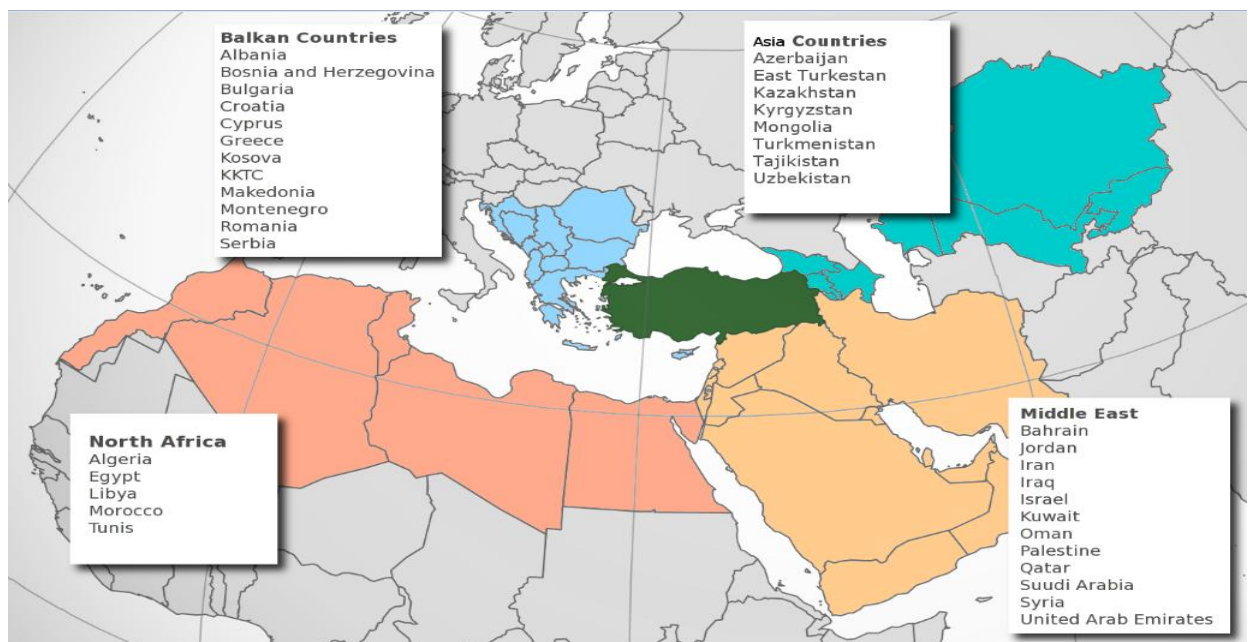


Figure-7: The New Region, ANKOS Collaboration Group Will Focus On

Conclusion

In this work, the current status of document delivery and resource sharing activities in Turkey are summarized. Within this context, it has to be mentioned that the document delivery operations that have started in 2008 with the deployment of KITS, have entered a new phase with the introduction of the electronic document supply module in 2013. The results indicate that the use of this new tool in KITS has accelerated resource sharing within license agreements, and has increased efficiency of those operations. ANKOS Collaboration Group aims to extend those efforts to a larger geographical scale and to lead those efforts for further utilization of possibilities in order to increase collaboration among institutions.

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Appendix-1: KITS Electronic Document Delivery License

Version 0.5 (21 April 2011)

Definitions:

ANKOS (Anatolian University Libraries Consortium) ANKOS, representing its members, signs agreements with vendors to achieve optimum conditions in the access of universities to information in electronic format.

KITS (Interlibrary Collaboration Monitoring System) It is both the system and the name of the software application that organizes information and document sharing among ANKOS members.

KITS members / users: Members of ANKOS, members of KITS, and employees of institutions who process requests of institutions in KITS.

Introduction:

This license specifies conditions for upload of all documents in KITS and conditions for the usage of uploaded documents.

1. KITS is a system used by ANKOS members for “resource sharing”, a term defined in library terminology, activities.
2. KITS is an intranet, closed to public, to be accessed by the members of ANKOS only.
3. Electronic document sharing within KITS is only available in permitted sections, and under the control of the supplying library.

Things to be known before file upload:

1. kits.ankos.gen.tr does not accept any legal or criminal liability due to the files uploaded. The uploaded files have to be appropriate with respect to the copyright rules of the resource material.
2. kits.ankos.gen.tr cannot be held responsible for any kind of damage or physical/general injury due to the storage of the file content by the user.
3. KITS members are not allowed to upload content to the system that has no permission to be copied or that is not permitted to be shared with third part people.
4. Files cannot be uploaded to the system for which the right of use belongs to another entity.

Responsibilities Related to the Downloaded Files:

1. The member who has uploaded a file to the system has the right to view the file as many times as the member wishes. There are certain restrictions on the rights of the requesting institution about viewing and/or downloading the file. They are specified by the supplying institution. Those restrictions preserve all rights that are owned by the original document, but, librarians can allow the use of this document (either bought by the supplying library or produced within its institution) with certain restrictions for “interlibrary collaboration” purposes. The restrictions can be implied either as the duration of the time

during which the file exists in the system (for maximum 15 days), or, as a specific count of download (maximum 5).

2. The requester has to use the downloaded file according to the restrictions imposed by the lender. These restrictions contain issues about the electronic or printed delivery of the document requested, or about the distribution of the file to third parties over Internet.

3. The file uploaded to the system may be deleted permanently by both the lender and the requester at any time they wish. Deleted files cannot be recovered by any means.

4. Files uploaded to kits.ankos.gen.tr are not checked against malicious software. Therefore apply the necessary security controls to the files you download.

Last Provisions

1. ANKOS and/or KITS may delete any file within the system without any justification. The users are not allowed to claim any rights for deletion of a file.

2. KITS does not specify any pricing for its operations. However, institutions may require to use their own pricing system for others to benefit from their resources.

3. In case of disagreements, ANKOS Steering Committee is fully authorized.

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