# Future of resource sharing in Turkey: can open access be an alternative?

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## Abstract

**Purpose** – The purpose of this paper is to provide an overview of the current status of open access initiatives in Turkey.
**Design/methodology/approach** – The author has conducted extensive research on the subject, which is supplemented by his own professional experience with resource sharing activities in Turkey.
**Findings** – Turkish libraries first ventured into the open access arena in late 2005 and have since made great strides by implementing dozens of institutional repositories and a national thesis center as well. Open access has a bright future in Turkey because of its promise for eliminating barriers to scientific information and reducing the costs of scholarly publication.
**Originality/value** – The author is one of a small cadre of experts on resource sharing and open access efforts in Turkey.

**Keywords** Resource sharing, Open access, Institutional repositories, Digital libraries, Electronic resources, Turkey

**Paper type** Research paper

## Introduction

Resource sharing and efficient use of resources have become increasingly important in recent years, as library budgets have been adversely affected by the global economic crisis. As a result, librarians have been forced to revise traditional approaches to resource sharing and increase efficiency. While resource sharing has gained momentum in Turkey in recent years, libraries typically only share printed materials.

Since the early 2000s, the global use of electronic resources has become increasingly common, driven in part by changing publishing technology. The migration from print to digital suggests that in the near future, traditional paper-based models of resource sharing will change around the world and the sharing of electronic resources will be a necessity.

Recently, major publishers have added specific language to license agreements to address how electronic content may be shared through interlibrary loans. As institutional customers of the electronic resources market, libraries are making an intense effort to take an active role in preparing new license agreements. In the coming years, these negotiations will be increasingly important as more and more content is licensed rather than purchased. As in other countries, collaboration, resource sharing, and document supply services in Turkey will be redesigned in the near future, including electronic resource sharing services.

This paper discusses how Turkish librarians are assuming a proactive and effective role during this restructuring and redesign process.

## Development of open access in Turkey

The Budapest Open Access Initiative, Bethesda Statement on Open Access Publishing and the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities have played a formative role in shaping the global open access movement (Kayaoğlu, 2006).

Even though open access has been the subject of great interest in research institutions around the world for more than a decade now, only recently did it become a priority in Turkey. At the 10th Annual Conference on the Internet in Turkey, held at Bahçeşehir University in December 2005, a decision was made to develop a national open access policy, which would serve as the foundation for development of future open access initiatives and institutional repository applications. At the 4th Congress of Information Technologies and Academic Information held at Pamukkale University in 2006, discussions in a number of sessions focused on the definitions and advantages of open access, open archives, and institutional repositories. As a result, the Berlin Declaration was accepted and an "open access memorandum" formulated, which was later announced to the public by the organizing committee (Akgül, 2006). Furthermore, an Open Access Advisory Board was formed by representatives of several scholarly organizations including: ULAKBIM (Turkish Academic Network and Information Center), ANKOS (Anatolian University Libraries Consortium), TKD (Association of Turkish Librarians), and UNAK (Association of University and Research Librarians). The Open Access Advisory Board is charged with developing national awareness about open access.

Parallel to those developments, ANKOS formed its Open Access and Institutional Repositories Working Group (AKEA) in 2006. The Working Group established a website that includes an Open Access Dictionary, Open Access Brochure, and a Guide to Building an Institutional Repository[1]. The site is used to inform the public about issues such as national initiatives, institutional repository software, intellectual property rights, and other issues related to open access (Karasözen *et al.*, 2010).

Based on the work begun in 2006, many publications have been converted from print to electronic formats and made available through open access and a number of open access archives have been formed. Just five years later, 263 Turkish scholarly journals are being made available through open access channels. Figure 1 displays the distribution of these 263 journals by subject area.

## ANKOS Open Access and Institutional Repositories Group

The Budapest Open Access Initiative defines open access as literature that is freely accessible to the public through the internet in such a way that the content can be accessed, read, saved, copied, printed, scanned, linked in full text, transferred to other software as data, and used for any legal aim without financial, legal and technical barriers. The mission of ANKOS's AEKA (Open Access and Institutional Repositories Working Group) is to raise awareness about open access and institutional repositories among information professionals in Turkey, to build collaboration between ANKOS, information professionals, and researchers, and to collaborate with other institutions working on these issues, both in Turkey and abroad.

The aims of the working group are to inform member institutions about national and international advances in open access and institutional repositories, to assist member institutions with adopting open access strategies and realizing advantages from those strategies, to create opportunities for open access initiatives in their respective institutions, to provide guidance and direction to institutions developing their own repositories, to sustain local open access efforts through collaboration and coordination, to disseminate educational documents via the ANKOS website, and to guarantee that those documents are current and reliable. Furthermore, the working group is promoting the brochure about open access in order to raise awareness, foster participation, and provide support. The National Open Access Project developed by ANKOS is supported by the MİTOS software, and open access data of 11 universities in Turkey can be browsed (see www.mitosweb.com).
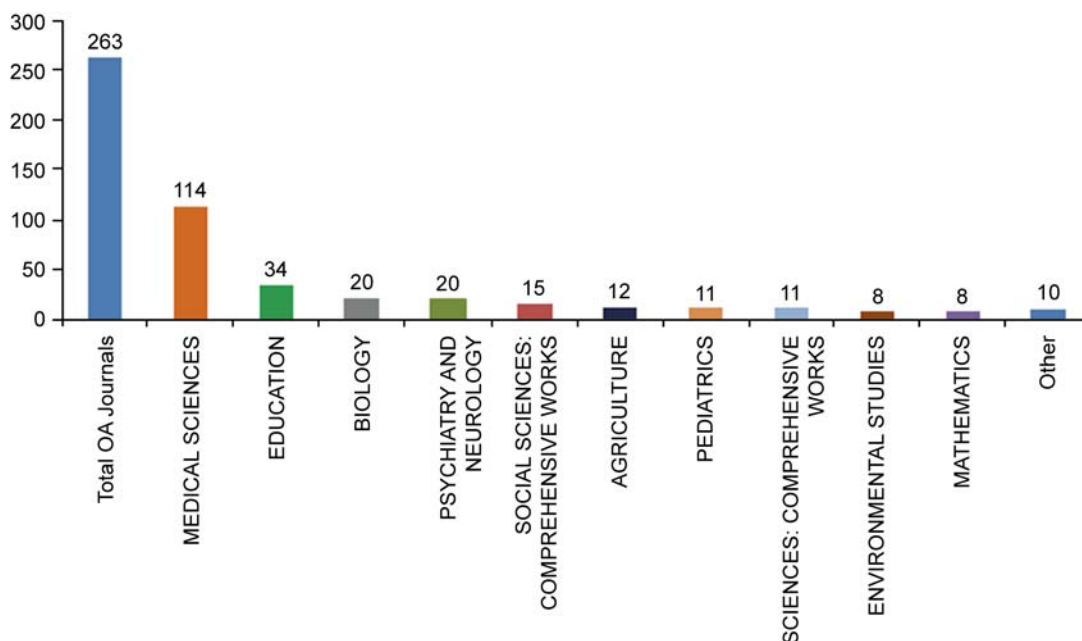
## Open access repositories

An institutional repository provides the public with free internet access to the scientific information produced by members of an institution (Atılgan, 2006). Its main objectives are the digitization, storage, conservation, dissemination, and promotion of locally created scholarship.

Deployed in 2001, Ankara University's institutional repository was the first such application in Turkey and contains the scholarly scientific output of its faculty and researchers. As of the writing of this article, fully 21 universities across Turkey have implemented institutional repositories that are in compliance with the open access interoperability standards and are listed in either the Registry of Open Access Repositories or the Directory of Open Access Repositories. These institutions include:

- Ankara University;
- Atatürk University;
- Atılım University;
- Bahçeşehir University;
- Çukurova University;

**Figure 1** Number of Turkish OA journals and subjects



**Source:** Ulrich's Web (2011)

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- Dokuz Eylül University;
- Erzurum Technical University;
- Gazi University;
- Hacettepe University;
- İstanbul Technical University (ITU);
- İzmir University;
- İzmir Institute of Technology;
- Mersin University;
- Middle East Technical University (METU);
- Muğla University;
- Sabancı University;
- Suleyman Demirel University;
- Trakya University;
- Uludağ University; and
- Yaşar University.

## MITOS True Open System

ANKOS introduced its National Interuniversity Open Access Project as a shared use application in November 2009. The objective of the project was to develop a national open access system in accordance with international standards. Based on feedback received from its members, ANKOS selected Mikrobeta's MITOS open access system for its platform[2].

Ankara University, Atılım University, Bahçeşehir University, Çukurova University, Dokuz Eylül University, İstanbul Teknik University, İYTE, Mersin University, Muğla University and Yüzüncü Yıl University are active participants in this project. As of July 15, 2011, these institutions had uploaded 27,495 documents to the MITOS shared repository.

## National Thesis Center

Most universities now have their own thesis repository. Depending upon the level of permissions granted by individual authors, some titles are made available to all internet users, while others are only available through computers located on the home institution's campus. In 1987 the Higher Education Council Publishing and Documentation Department began to collect copies of graduate theses written at universities and education-research hospitals. The department was restructured as the Higher Education Council Thesis Center in 1996, and since then has functioned as a repository for theses. Electronic submission of theses was made possible in 2006 and then in 2007 the Electronic Thesis Repository Project began to convert printed theses into electronic formats to facilitate browsing by users. Of the theses submitted before 2006, only those titles for which the author has explicitly granted permission are made available. The National Thesis Center also performs bibliographic control of titles and works to increase awareness of them by making their full text Internet accessible. As of July 13, 2011 the center had 282,581 theses from 154 universities, of which all are digitized and almost 120,000 are available in full text. The remaining 162,000 are available in abstract only[3].

The majority of titles held at the National Thesis Center are Master's theses. The distribution of theses according to their type is shown in Figure 2.

Figure 3 displays the distribution of theses among the top ten universities, whose combined holdings represent 50 percent of the total repository. It is evident that universities that have a faculty of medicine are in the top tier.

## Turkish Journals in DOAJ

As of July 2011, 161 Turkish journals were listed in the Directory of Open Access Journals (DOAJ), ranking Turkey tenth among the 111 countries whose journals are indexed in DOAJ. Figure 4 displays the number of Turkish journals added to DOAJ in each of the past ten years.

According to data obtained from Ulrich's Web, a total of 10,414 open access journals were published as of July 13, 2011. Of these, DOAJ indexed 6,726 titles published in 111 countries. The distribution of journals indexed in DOAJ for each of the top 10 countries is given in Figure 5.

## Publishers' approach to open access

As the leading forces in academic and scientific publishing in Turkey, academic institutions have clearly stated that they support open access initiatives and have made valuable contributions to the national development of open access and institutional repositories. At the same time, rapid advances in electronic publishing have forced publishers to develop novel business models and marketing policies. More importantly, librarians and library consortia are reconsidering the value of the Big Deals in light of the global economic crisis and are initiating discussions with publishers that call into question the future sustainability of the Big Deals. This will continue to be one of the highest priority topics of discussion between publishers and librarians as they have been for the last several years (Houghton and Vickery, 2005). In the context of these rapid changes, many leading publishers such as Springer, Elsevier, ISI Thomson, and Wiley-Blackwell have declared their support for open access applications. The open access business model preferred by publishers, however, requires direct financial support for the author or for the institution with which the author is affiliated.

Until recently, publishers were wary of independent institutional repositories and open access journals, citing concerns about the reliability and scientific content of the resources. However, as open access journals proliferate and compare favorably with commercial publishers' journals in evaluations such as impact factor, those concerns have become less relevant.
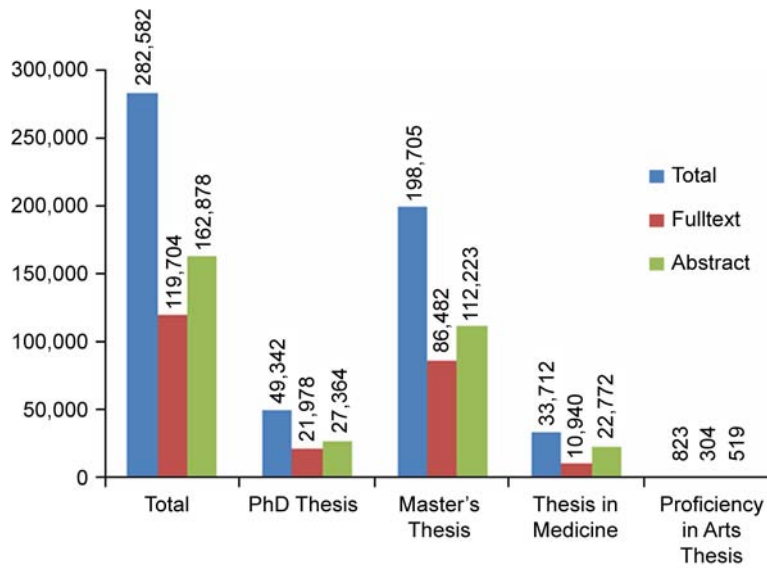
In summary, large commercial publishers are supporting open access directly and demonstrating a desire to play an effective role in this area through the novel business models they are developing.

## Libraries' and librarians' expectations

Librarians are not only following global advances in publishing very closely. They are also participating in groups governing these developments, triggering new applications and services in the field of librarianship. Just as open access has stirred interest from publishers, it has also created excitement among librarians.
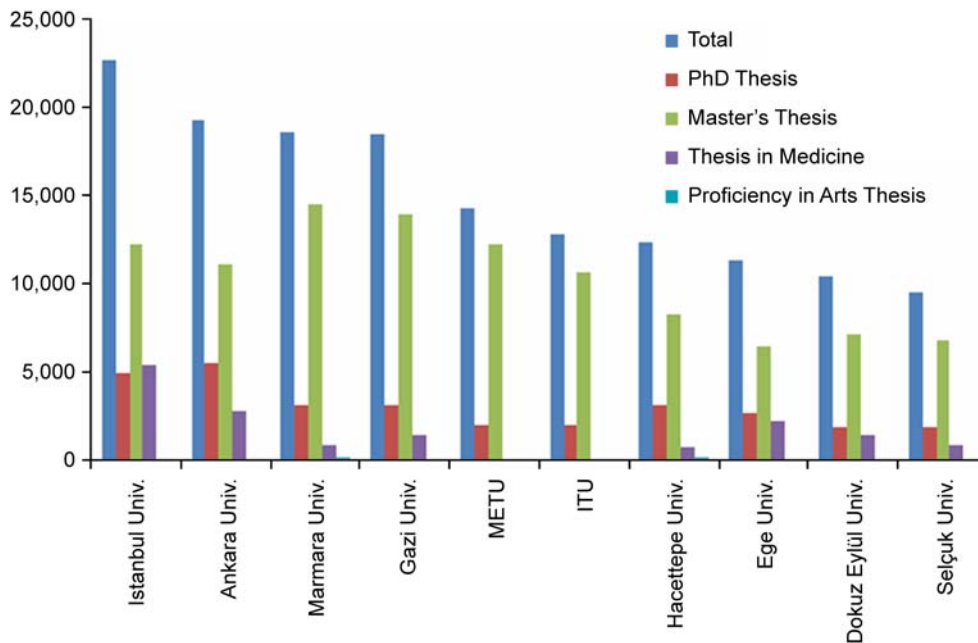
As advances in electronic publishing exhibit major advantages, they also bring with them some disadvantages. The Big Deals in particular have become a source of confrontation between librarians and publishers during the current economic crisis. While Big Deals bring several major advantages such as access to greater content, multidisciplinary search capabilities, lower cost per article, etc., they also have major drawbacks such as the inability to select journals on a title-by-title basis, a lack of sustainability due to escalating subscription costs, pushing smaller scale publishers out of

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**Figure 2** Theses in National Thesis Center by degree type



Source: http://tez2.yok.gov.tr/

**Figure 3** Top ten universities in National Thesis Center
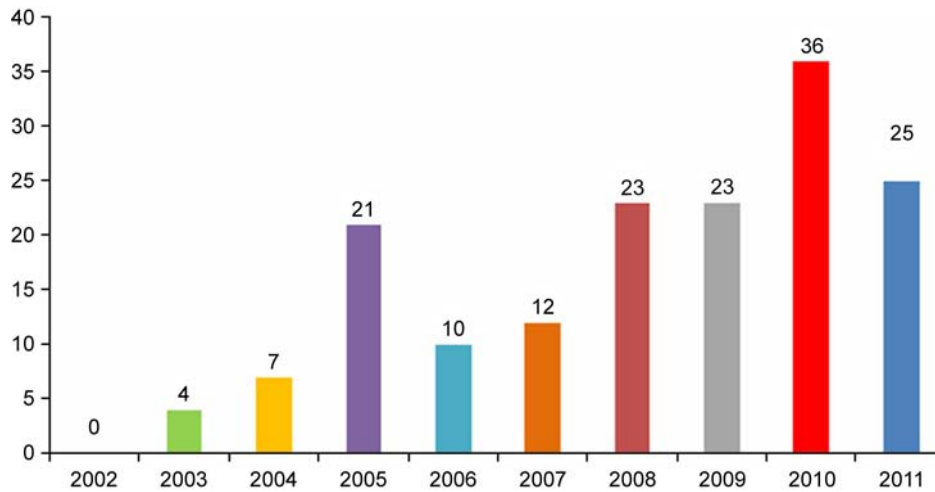


Source: http://tez2.yok.gov.tr/

competition, a higher total cost of ownership, limited access to back issues and archives, and difficulties with long-term archiving (Houghton and Vickery, 2005).

As librarians are experiencing problems with electronic publishing and Big Deals, open access and institutional repositories are emerging as viable alternatives. As a result, librarians support developments in open access despite some of its disadvantages and even contribute to developments in this area. They believe open access is the wave of the future because of its promise for decreasing costs and eliminating access barriers to back issues and archives.

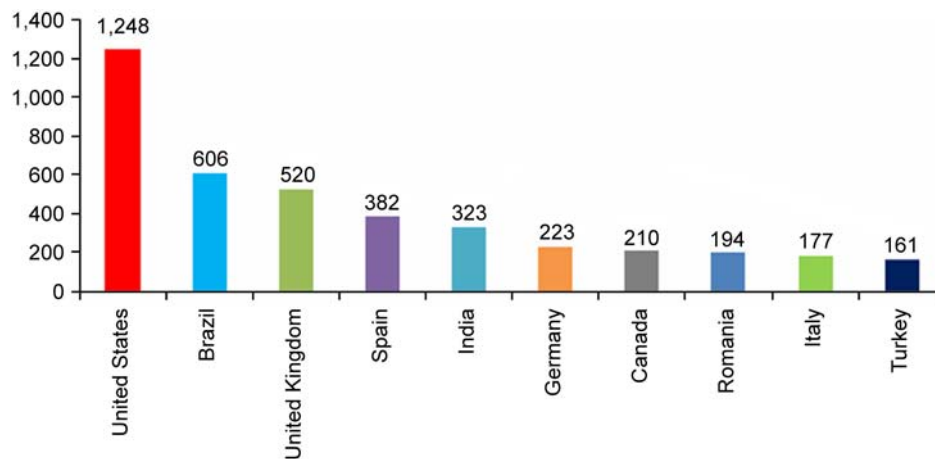## Can open access be an alternative for resource sharing in Turkey?

Until now, resource sharing activities in Turkey have been limited largely to the sharing and document delivery of print resources. However, as more information is created electronically, or "born digital", the concepts of document delivery and resource sharing are being redefined. Scientific publishing in Turkey is mainly performed by universities as there are very few commercial scientific publishers. As not-for-profit institutions, universities naturally prefer to supply

**Figure 4** Number of Turkish journals added to DOAJ



Source: http://www.doaj.org/doaj?func=byCountry&uiLanguage=en

**Figure 5** Total number of journals by country in DOAJ (top ten)



Source: http://www.doaj.org/doaj?func=byCountry&uiLanguage=en

scientific and academic papers to the public free of charge. Hence, they build their own open access repositories.

One of the most important advantages of electronic publishing for such institutions is that the content is easily accessible and becomes better known in national and international arenas. The high costs of printing, distribution, and promotional activities also cause universities to rely heavily upon electronic publishing.

Open access of scientific and academic resources without charge is one of the most exciting advances in the field of publishing (McVeigh, 2004). The high level of the scientific content, provision of free access to primary information resources, and calculation of impact factors for open access journals have contributed to the rapid development and increased importance of open access. According to a study done in 2004, 239 OA journals were indexed in the ISI citation database (McVeigh, 2004). At the end of 2008, 3,801 journals were listed in DOAJ, and by July 2011, that total had grown to 6,726 (Giglia, 2010). According to the 2008 Journal Citation Report, 30 (1.51 percent) of the 1,980 social science

journals for which an impact factor was evaluated were open access, while 355 (5.38 percent) of the 6,598 natural science journals were open access (Giglia, 2010). These data suggest that the number of OA journals for which impact factors are evaluated by JCR will increase rapidly in the near future. Lastly, of the 75 Turkish journals in ISI Web of Science, 34 (45.33 percent) are open access.

As open access journals start to compete with traditional publications, it is expected that scientific content produced in Turkey will appear in open access journals and open repositories with greater frequency. Open access journals and open repositories will be a serious alternative to traditional resource sharing methods in academic institutions as those activities are carried out by the leadership of academic institutions in Turkey.

## Conclusion

In this study, the historical development and the current situation of open access applications have been examined, and

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an outlook for the future has been discussed. According to the data obtained for this study, it is evident that open access applications are advancing with an increasing acceleration in Turkey and around the world. Those advances force publishers to form novel business models, libraries and librarians to develop new areas of services, and users to develop new habits of research. In parallel to the world, open access activities are carried out intensively in Turkey. As Turkey is a developing country, it is preferred that public funds be used in the solution of higher priority problems instead of traditional publishing activities. Consistent with this approach, universities support academic research activities without any profit expectations as research is one of the fundamental areas of work for universities and as this is part of the national responsibility of universities. This approach naturally results in the preference and widespread use of electronic publishing instead of the high cost and limited access of print-based publishing models.

This process of change and advance has also affected research and resource usage habits of scientific researchers. Scientists tend to use open access electronic resources, which can be accessed more easily and with lower cost, if the scientific accuracy of those resources is assured. As a result of this process, depending on the change of habits and on the new developments in the concept of publishing, it is inevitable that resource sharing and document delivery applications and services will also change.

Lastly, it is known that there are some people who are skeptical towards open access resources; however, all resources used for this study (that aims to stress the importance of open access resources and to evaluate the future of it) are open access resources except Ulrich's Web.

## Notes

1 Additional information about the ANKOS Open Access and Institutional Repositories Working Group can be found at their website (in Turkish), at: http://acikerisim.ankos.gen.tr/hakkimizda.html (accessed July 8, 2011).

2 An English language version of the MITOS True Open System website is available at: www.mitosweb.com/eng/ (accessed July 11, 2011).

3 The National Thesis Center website is available at: http://tez2.yok.gov.tr/ (accessed July 7, 2011; in Turkish).

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