

# MANAGING ELECTRONIC E-JOURNAL ACCESS: THE TDNET SOLUTION



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*The achievement of efficient, seamless access to electronic journal collections is a growing concern for libraries. Across the board, libraries are looking for a management solution. A number of non-commercial, albeit partial solutions are in development. Commercially, TDNet is presently the only solution offering integrated access to all TOCs, abstracts and full-text available from electronic and print-only titles in a library's collection. TDNet uses a modular approach, enabling a range of search options; users can build sub-sets of the collection and define an e-mail alerting service. Other modules address administration and collection-management, as well as maintaining URLs and monitoring aggregations and bundles.*

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## **Introduction**

Whenever a new product or service is developed, those promoting it must first gain the attention of the target audience by explaining how and why it is different from other options on offer in the marketplace. An early TDNet presentation in the UK provoked the comment (as it was realised that it really was a new service) "what you're doing is aggregating the aggregators". Even if it tells only half the story, this succinct description of TDNet tends to make people take notice, for the provision of comprehensive and seamless access to electronic journals is one of the major challenges facing serials collection development in today's library or information centre.

The aim of this article is to explain and to illustrate the concept and functionality of TDNet. There will be no attempt to draw comparisons with other initiatives such as Openly Jake or Serials Solutions, both of which are ground-breaking in their own right, but neither of which as yet attempts to provide the 'umbrella' turnkey solution offered by TDNet.

It may be helpful to emphasise at the outset that the promotion of TDNet in the UK is not directly associated with or dependent on the use of Everetts' core services. Moreover, TDNet does not compete with proprietary aggregation services (for example SwetsNet Navigator and EBSCO Online) – on the contrary, TDNet provides an umbrella under which they can be browsed and searched more effectively in conjunction with other aggregations, bundles and individual titles. EBSCO Online currently provides links and/or hosts content to over 7,400 full-text titles, and SwetsNet Navigator to nearly 6,000: TDNet hosts no content, but provides, manages and maintains links to over 25,000 electronic titles, including all those available via the aforementioned

aggregators: a complementary rather than competitive situation.

The promotion of a unique product has the obvious advantage that no other company is competing for the same market, but there is also, initially, a barrier in terms of a natural reluctance amongst libraries to be the first with the toe in the water. In the year since the launch of TDNet, close to 70 toes have been firmly wetted in a number of countries, including the UK.

As a new product, TDNet is still imperfect, raw in certain respects and undergoing a process of continuous development. It has, in other respects, made huge advances on the functionality of six months ago and has generated huge interest amongst libraries. Forthcoming developments include a Z39.50 system enabling the integrated metasearching of databases and catalogues (currently in beta-test), and the addition of electronic books (e-books) and conference proceedings by mid-2002. In the longer term, the incorporation of further types of information, such as standards, patents and internet sites, is planned.

**Background to the development of TDNet**

Geographically and philosophically, there is a distinct parallel between the development of TDNet and that of the ALEPH integrated library

system. In the latter case, Ex Libris developed their now long-established systems out of a project originating at the Hebrew University in Jerusalem in 1980. Both companies refined their products within the small but vibrant Israeli library community, before releasing them internationally.

TDNet was conceived in 1998 by Asher Sofrin and Aliza Friedman, then Chief Executive and Marketing Manager respectively at Teldan Information Systems, the most prominent domestic library supplier and information provider in Israel. They observed that libraries, particularly in the larger academic institutions, were finding it increasingly difficult to manage their fast-growing electronic journal collections, and that the scale of this problem was likely to increase. In-house design and construction of an interface to all electronic journal content, however accessed, began the same year.

The first beta-installation of TDNet went live at the Ben Gurion University in 1999, and TDNet was swiftly adopted by more than 20 libraries in all sectors in Israel during 2000. The international launch was held at the IFLA Conference in Jerusalem in August 2000. An agreement was subsequently concluded in December with Everetts to market TDNet in the UK, and in February 2001 TDNet was incorporated in the

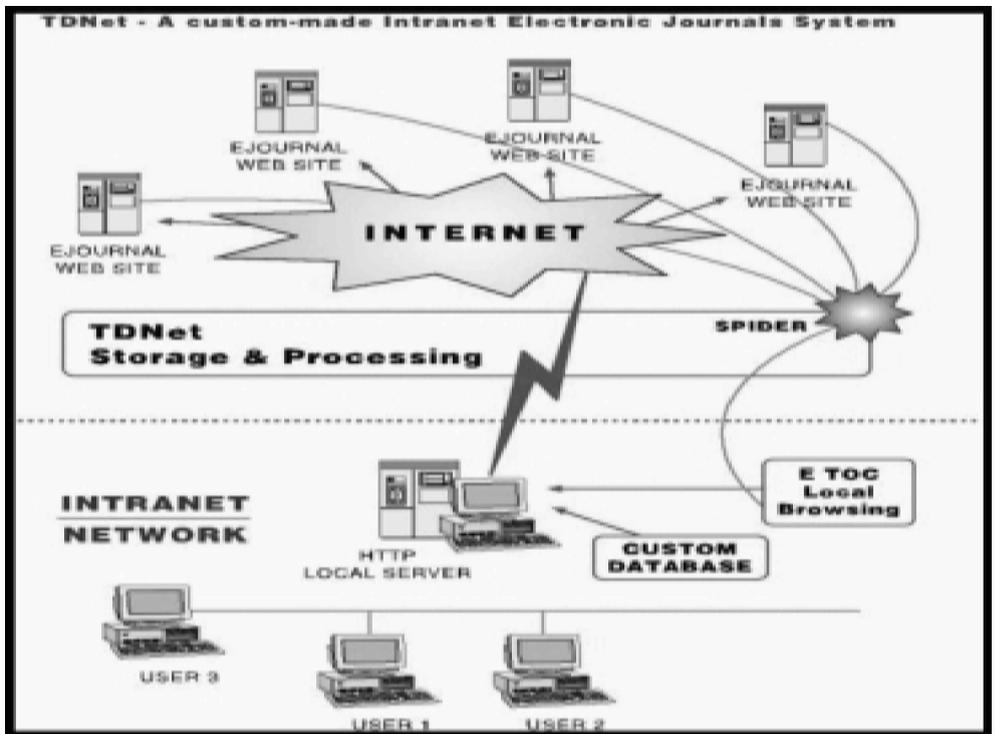


Figure 1.

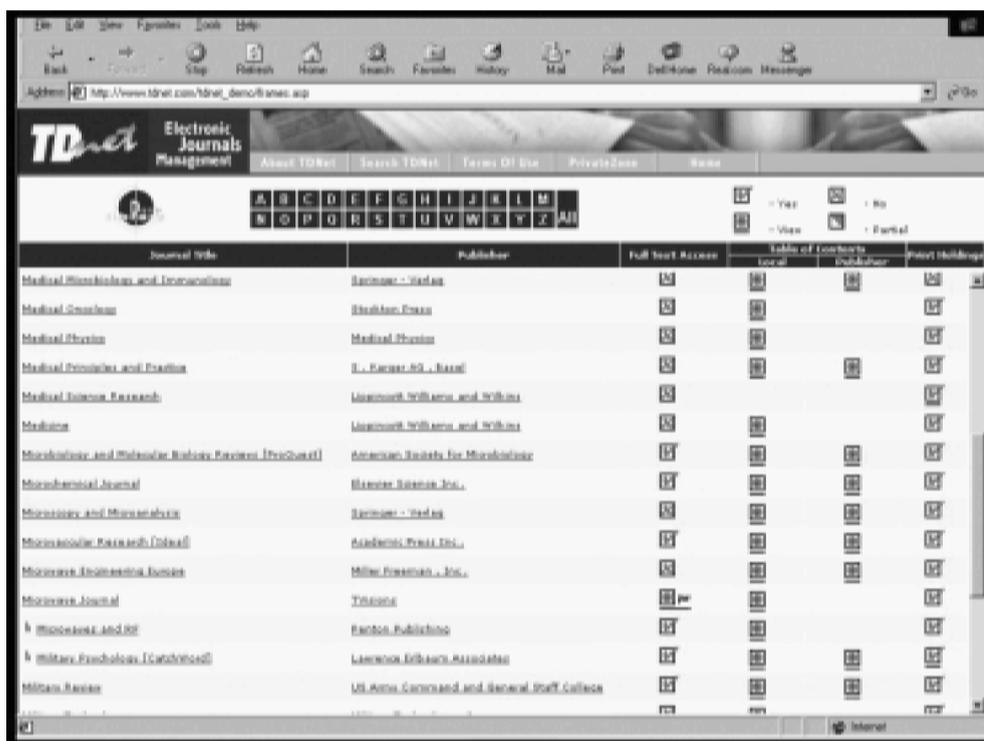


Figure 2.

USA with Michael Markwith as President. Distribution agreements have been signed with companies elsewhere in Europe, Asia, Australia and the Americas, as well as with leading consortial organisations such as NELINET and PALINET.

A number of libraries have recently implemented TDNet or are in the process of so doing. The Bodleian Library at the University of Oxford hosted a long-term trial in the UK, and TDNet is now their default electronic journal interface. Perhaps not surprisingly, however, it is libraries in the USA that have been the quickest to recognise that the exponential growth of their e-journal collections makes it desirable to find a customised solution, rather than to pour ever-increasing resource into in-house management.

Currently, 14 programmers and technical staff are dedicated full-time to the maintenance and development of TDNet.

### Architecture of TDNet

The system may be hosted either locally (i.e. on the library's own server) or by TDNet itself: there are two main servers in Israel and two further back-up servers in the USA. A Windows NT server is required to run TDNet locally. See figure 1.

If hosted on site, electronic tables of contents

(eTOCs) are transferred into the local network via a weekly download. This does not involve any system downtime, which only occurs briefly during periodic software updates.

Close co-operation with publishers and aggregators, as well as constant web-spidering, ensures the currency of URLs and prevents the breakdown of links within TDNet. This addresses effectively the common problem of a broken link coming to light only when a frustrated user complains.

### TDNet 'Front-End'

Many libraries – major academic libraries in particular – have developed either an alphabetical or a subject approach (or both) to electronic journal management within their webpages, whilst others have as yet not progressed beyond listing aggregations and bundles with little or no direct access to individual titles outside their OPAC. TDNet's front-end streamlines the alphabetical approach to include both eTOC and full-text access, with links from the print-holdings record into and out of any Z39.50-compatible or web-based OPAC. See figure 2.

Holdings are denoted by a simple tick or cross, generated either by TDNet at the set-up stage

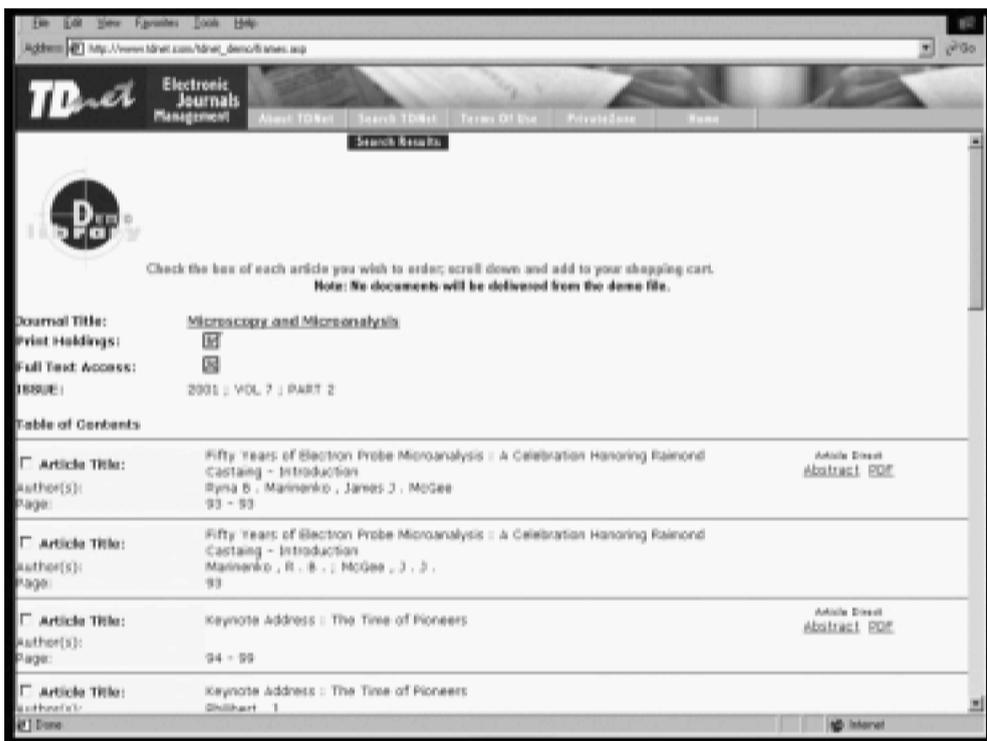


Figure 3.

(taken from the library's own holdings files) or during routine administrative activity by the library (for example when a new title is added to the collection). The TDNet collection need by no means be limited to titles with electronic access: TDNet will capture the eTOC for any title mounted on the system, including print-only titles and electronic titles for which no TOCs are provided by the publisher.

Within certain limits, the screen can be customised to fit an institution's requirements, for example by replacing the link to the publisher's homepage with a separate column for Athens authentication or for vendor access (giving users the choice of accessing full-text via the vendor or direct from the publisher). Where there is dual-vendor access, the title will appear on successive lines. The institution's logo can also be incorporated into all TDNet screens.

Full-text coverage is shown via a mouse-over 'information' symbol in the title field. TDNet also caters for publisher-driven username/password requirements, embedded in the system and shown to users on a pop-up screen reached by clicking on a \_pw symbol (see 'Microwave Journal' on the screen above). Data is IP-protected to prevent unauthorised usage.

### Locally-held TOCs

Once records are downloaded into the local network, users may link directly from TOCs to all available abstracts and full-text.

An optional feature allows users to request or order document delivery of articles in titles not available locally. Requests may be routed to the ILL Department. Corporate libraries, however, might enable their users order directly from their chosen supplier and have charges billed to credit cards.

### Subject and keyword searching

See figure 3. The cornerstone of TDNet, and the feature, which sets it most firmly apart from any other product presently available, is that users may browse and search their entire collection at article-title level, linking directly from search results to all available abstracts and full-text.

Users can search by subject and/or by keyword string in article, author, journal title and other data sub-sets. String-searching is effective but needs some precision, although there are 'beginning of phrase/anywhere in phrase' and 'partial word/exact word' filters, which can help the inexperienced user. See figure 4.

Figure 4.



'Off the shelf' libraries are supplied with three levels of LC subject headings. This can be replaced by any other subject approach on receipt of a title or ISSN file with subject-heading links from the library's catalogue.

Refinement of searches is also available through the combination of keywords. A separate 'One Search' screen enables search combinations,

for example word-in-article and author.

On-screen search tips and an accompanying user guide are also supplied.

### The Private Zone

This feature is available to all end-users to build sub-sets of the full database and thus to work



Figure 5.

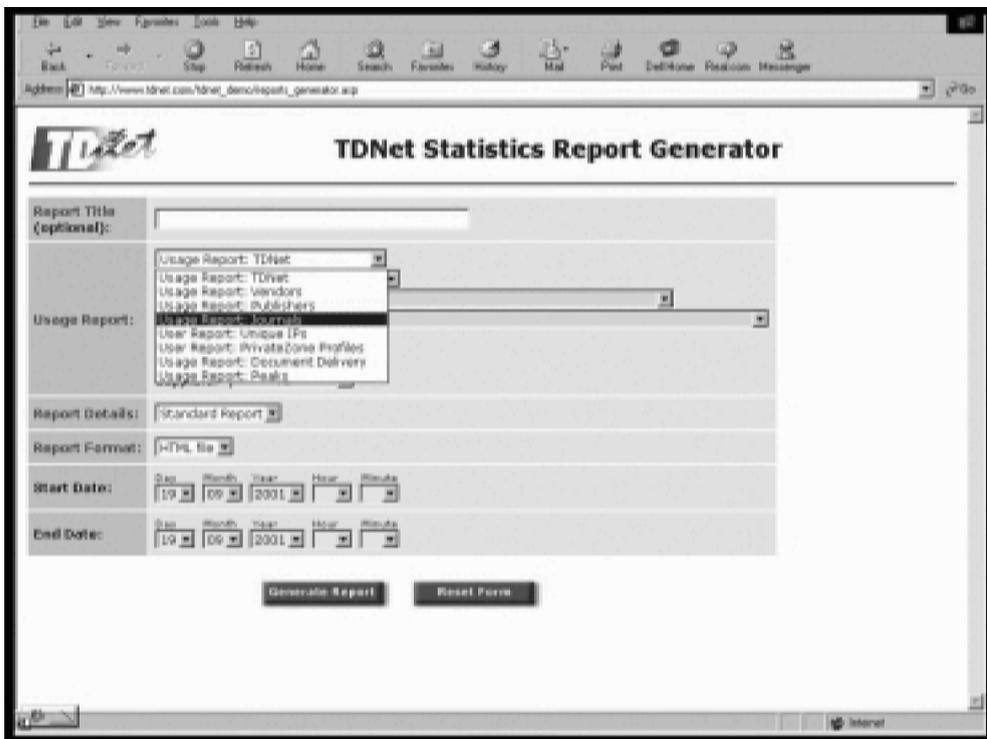


Figure 6.

with a narrower, more targeted list of journals within their field of interest. The size of the subset is unlimited and can be amended in real time and at any time. Users have access to exactly the same search and browse facilities as in the full system, but can eliminate unwanted search results by narrowing and focusing the scope of titles searched. *See figure 5.*

End-users can also build a weekly e-mail alerting service, generated from an unlimited number of keywords within article, journal title, author and publisher fields. Where such links are available, recipients of the alerts have direct access to abstracts and full-text.

The Private Zone will be re-named 'My TDNet' with the next software release, sustained sniggering during presentations constituting a major factor in this decision...

### Statistics and administration

A wide range of usage reports (by journal, publisher, vendor and IP address) can be generated to track all intra-TDNet activity. Sadly, but inevitably, the most useful report will be that which identifies cancellation candidates by recording individual journal usage. The broader picture is available from daily peak-time analysis and statistics of overall TDNet usage. *See figure 6.*

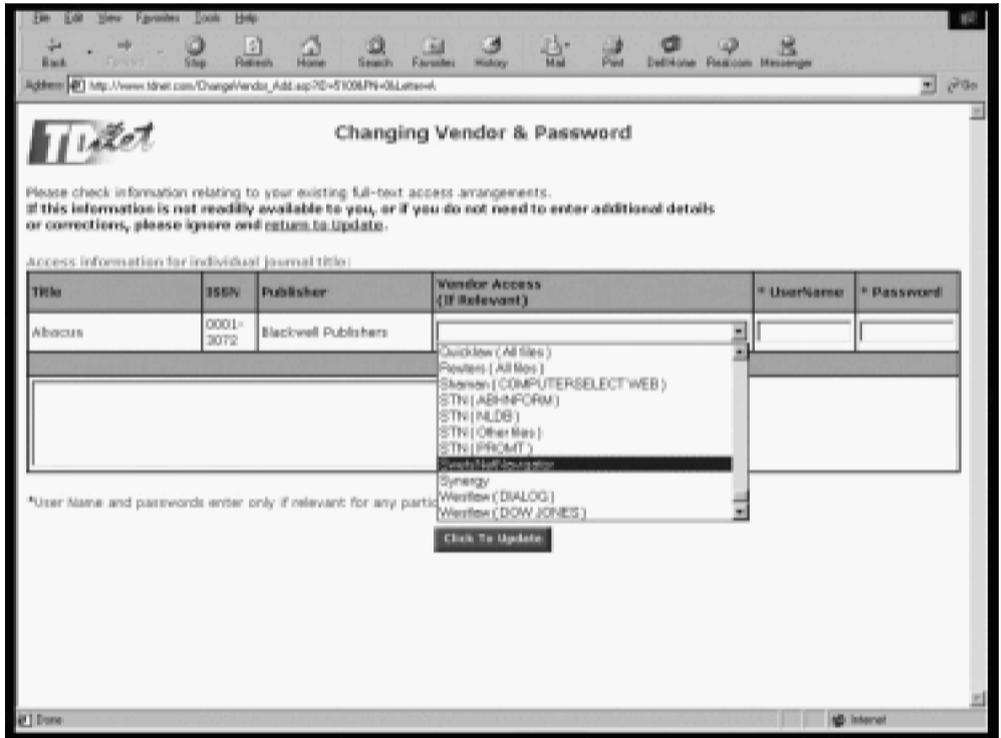
The Reports Generator gives an excellent pointer to what is being accessed. It does not, however, record access outside TDNet, so publisher-generated reports continue to be valuable in tracking individual journal access.

Initial loading of the database is the responsibility of TDNet, based on provision of specific lists and access arrangements of the subscribing institution. Thereafter, the library has the choice of administering their TDNet account in-house or of continuing to use TDNet resources by e-mailing required additions, amendments and deletions. *See figure 7.*

In practice, most libraries prefer to have selective control of day-to-day maintenance of their electronic resources, for example adding individual titles to their collection themselves, but probably outsourcing to TDNet the addition of sizeable new 'bundles'.

By means of a single and (perforce) jealously-guarded password, the local administrator has access to all 25,000+ titles in the TDNet master-database. A single mouse-click adds or deletes titles to or from the local collection, and on the same screen vendors may be selected, publisher-required passwords embedded, and print and electronic holdings denoted. The administrator can also search the full database: one attractive feature allows searching by mode of access,

Figure 7.



enabling the identification and incorporation of any and all titles to which full-text access is unrestricted and free-of-charge.

**Shared or consortial access**

Far from being restricted to individual institutions, TDNet is eminently suited to

implementation by consortia or looser affiliations – the example shown is a group of Israeli medical libraries. Shared adoption will not only reduce costs, but will also create a virtual union catalogue with the potential for structured resource-sharing and document delivery amongst participating members.

See figure 8.



Figure 8.

Whilst full-text access is of course dependent for the most part on IP authentication, shared access to TOCs, holdings and catalogue information is fully enabled. Participating libraries can choose at any time to view shared or individual collections.

### Demonstration file

TDNet's demonstration file is 'live' in the sense that it will enable access to any title for which the institution's IP-range is validated. Holdings information is 'canned', or rather hypothetical, and the file presently lists 527 titles with a bias towards STM journals; for a number of titles there are live links into and out of the University of Haifa's ALEPH catalogue.

See figure 9.

Access to the file is freely available via 'click-here' access to a sign-up screen; a username and password will be notified by e-mail within 24 hours.

### Useful URLs

Further information about and illustration of the wider issues relating to this article can be found at the following URLs:

- <http://www.serialssolutions.com>
- <http://www.openly.com/jake/>
- <http://www.swetsnetnavigator.nl>
- <http://www-us.ebsco.com/online/OnlineTitles.asp>
- <http://tdnet.bodley.ox.ac.uk>

For excellent examples (amongst many others) of in-house development of access to electronic journal resources, go to:

- <http://www.bris.ac.uk/is/informationgateway/electronicjournals/>
- [http://library.ukc.ac.uk/library/netinfo/ext-servs/oj\\_host.htm#host](http://library.ukc.ac.uk/library/netinfo/ext-servs/oj_host.htm#host)

To investigate integrated access to electronic Table-of-Contents and full-text across an entire e-journal collection, use the form shown to access the TDNet demo file via <http://www.tdnet.com>

The screenshot shows a web browser window with the address bar containing 'http://www.tdnet.com/tdnet\_look.html'. The page features the TDnet logo and a navigation menu with links: Home, News, About Us, Contact Us, Publishers, and Home Page. Below the menu is a registration form titled 'TDnet Demo File - Registration Form'. The form includes a date field set to 'Wednesday, September 10, 2001' and several input fields for user information: First Name, Last Name, Organization, Job Title, Email, Telephone, Fax, Address (with a note to include state in the US, Canada, or Australia), and Country. At the bottom of the form are 'Submit' and 'Reset' buttons. A 'Forgot contacts' link is also visible on the left side of the form area.

Figure 9.