The scientific information world has changed dramatically over the last decade. Advances in Web and Internet technology have resulted in changes in speed of communication, media formats, and user behavior of the scholarly community. One of the most salient changes affecting this community is that of Web publishing. Web publishing (i.e., e-journals, e-books) has become the major form of scientific research publishing. It has not only changed the way and speed of accessing research papers, but also the entire process of information acquisition, organization, storage, update, processing and retrieval. There is no doubt that administrators and libraries of academic and research institutions should attend to these changes, as well as to more traditional information needs in order to maintain a high level of scientific productivity and discovery.

It should be well emphasized that the shift from printed information resources to electronic media turned the academic and research library – traditionally perceived as the “Domain of Books and Knowledge” - into a quite transparent entity. Aside from traditional visible library activities, such as book shelving by classification and reference desk assistance, more efforts and costs are now invested in “behind-the-scenes” infrastructural activities. These activities are aimed at providing researchers and students with online access to scientific and scholarly electronic resources through licensing agreements with electronic databases, journals and books publishers and vendors. Additionally, the local management process of these digital resources within the library is enforced in order to assure their quality, accuracy and accessibility. As a consequence of this shift in activities, the library is now often perceived as redundant by its own users who are unaware of the fact that most online information resources they use everyday are not a free scholarly cornucopia found on the Internet, but a result of intensive, accurate, and professional efforts made by librarians and information specialists.

However, traditional library functions have not yet been totally abolished. While journals are now predominantly digital, books are still mostly hard copy; thus, there is still a constant need to locate, purchase (as well as negotiate better price terms) and process printed materials on a daily basis based on faculty and staff demands, or as part of regular collection development. The Library also registers purchased materials within the library’s computerized systems, track for arrivals and changes, check for collection completeness, scientifically classify them, catalog them, technically prepare them, and eventually move them to library shelves for quick and efficient use by scientists.

So, what does the Weizmann Institute Library do nowadays in order to provide Weizmann scientists, students and staff with the most up-to-date, accurate, scientific information?

The Library’s activities can generally be divided into two major groups: User and information Services and Resource Management Services.

User and information Services are mainly concerned with meeting users’ information needs by:

- Book lending from campus libraries collections.
- Supplying professional reference services (online, by phone, or one-on-one interaction).
- Assistance in online searches made by scientists in various information resources on demand, answering information accessibility issues, and guiding well oriented usage of databases, and other information retrieval tools supplied by the Library.
- Arranging individual and group training sessions for new and existing library services.
- Offering one of the best Inter-Library Loan & Document Delivery services in Israel. This service enables Weizmann’s scientists to personally receive scientific documents from throughout the world in their favorite format, as well as allowing other universities and research centers to receive items located at the Weizmann Library.
Resource Management Services are located mainly at Library Headquarters (Central Library). It is considered to be the backbone of the Library. Its purpose is to maintain all of the Library’s electronic and printed collections vital, and available to all Weizmann personnel. This purpose is achieved by purchasing information resources, and organizing them for easy and convenient use. Although the shift in emphasis to electronic resources contributed to a certain decrease in the Library’s need for human resources performing simple technical duties, many new and more sophisticated activities were added to its workload. Today, many efforts must be given to electronic resource management. Hence, among the duties of Resource Management Services are:

**Acquisition / Licensing of Resources** – While books and other printed materials still need to be purchased and handled on a daily basis, the main focus now is providing Weizmann personnel with fast and consistent online accessibility to a vast amount of electronic resources. Firstly, the process of purchasing electronic resources requires a careful and skillful selection of specific resources offered by various publishers, using professional and statistical evaluation methods, as well as enabling scientists with trial periods. Contacting and negotiating with information publishers and suppliers is the next step. This may be done directly, or in collaboration with the Israeli Center for Digital Information Services (MALMAD), which serves as the Israeli academic library consortium, in signing contracts with scientific information publishers and suppliers, and influencing the improvement of licensing conditions. Contacting publishers in both cases requires the Library to check the contents of all electronic journal “packages,” series, and databases purchased and about to be purchased, and to provide sufficient user statistics' data as well as ROI and quality assessments. In addition, the Library always keeps track of subscription periods and initiates contract renewals when needed, as well as continually verifying that publishers and suppliers comply with agreements, and do not deny accessibility to their resources for any reason. Finally, it is the Library’s responsibility to implement usage of the purchased information resources by planning and conducting training sessions to different interest groups in the Institute (e.g., scientists, students, laboratory assistants, departmental secretaries and administrators, etc.), and by arranging publishers’ seminars regularly, or based on faculty demands.

**Metadata Creation and Management** – After resources are purchased or subscribed to, they have to be organized accurately for fast and efficient future retrieval. The Library must include them within its computerized management systems, and fit their record structure to the Weizmann catalog as well as other union catalogs and services according to international standards. Abiding by these international standards is essential for unity reasons which allow the Library to share standardized information with libraries all over the world (e.g. duplicate and upload or download records from online services). Authority files are checked against Library of Congress rules (AACR2), and analytical records for series' individual titles are created and linked to the entire series. Additionally, the Library is required to record Open Access items so they can be accessible as an integral part of the collection.

Users of databases and search engines like Google or PubMed tend to take full-text accessibility to scientific articles for granted. Although there are indeed some open access publications, most scientific publications are not freely available over the Internet. Users are usually unaware of the fact that the Library’s agreement with information publishers and providers, as well as the Library’s resolver system, are, in fact, responsible for most of this accessibility, and work in full coordination with the Library’s computerized resource management systems. Whenever a Weizmann network computer sends an information request to a scientific information resource website, the site owners recognize the computer according to its IP address as a Weizmann user, and allow it to access the article's full-text according to Library-signed agreements. The Library's resolver system can link a bibliographic reference appearing in a certain scientific database to the “right” full-text version of the item as purchased by the Library, even if it is not located on the same server. The resolver system ensures that the user will always receive the specific already-purchased copy of the requested item, thus preventing the appearance of error messages resulting in unsuccessful attempts to view the full-text of an unpurchased item. External access to full-text information resources is mostly available through a remote connection to the Weizmann network, or a result of network connection from other academic institutes that have their own information agreements and resolver systems.
Illustration 1: Access to information resources via Google Scholar

Inside Weizmann:
Google Scholar recognizes the computer as a Weizmann user (based on its IP address) and offers a link to the designated copy of the full-text article purchased by the Library.
Performing the exact same search, the computer is not recognized as Weizmann’s (or any other academic institute), a request for username and password appears, and access to full-text is denied.
Illustration 2: Library’s Resolver Service (on-campus searching)

In this Biosis database search results’ set, a link from each bibliographic record to the Library’s resolver system is found.

Clicking on the link through the resolver refers the user to the right full-text copy purchased by the Library.
Moreover, the Resource Management Services are responsible for tracing changes in electronic journal holdings. Online resources, like other Web entities, sometimes tend to be of a fragile nature. While DOI remains still, e-journal publishers and suppliers often change journals’ links and locations, change collection contents, merge services, buy or sell existing journals from each other, etc. All these alterations must be monitored daily, and embedded within the Library’s computerized systems; otherwise, changed resources will not always be available to Weizmann’s personnel. Additionally, the Library’s computerized systems should always immediately reflect printed holdings’ changes including movement and relocation updates, resulting from collection dispersal, oncampus relocation, and year-coverage of substitute electronic versions, for both, collection development and preservation.

Pioneering within new information services – The WIS Library occasionally pioneers, and is involved in the development and adaptation of new information services and technologies intended to facilitate scientists’ access to electronic resources. It sometimes enters in partnership with other institute departments, or with external companies for development of innovative information retrieval technologies. One recent example is OneSearch - a new federated search tool for first orientation in multiple resources:

**Illustration 3a:** Searching for the term “nanofabrication” in OneSearch (by clicking on the relevant discipline – Chemistry in this case):
Another service recently purchased and implemented by the Library’s staff, with the assistance of the Computing Center, is Athens – a remote (off-campus) access protocol to Library resources for Weizmann personnel, using nothing but one’s own Weizmann’s Novell/Unix network’s username and password. This service, although available in its basic form to other academic institutes in Israel, was designed especially for Weizmann users’ login convenience and security of using a single sign-on method. Finally, the Library’s new Internet Website and Users Forum were developed, designed, and deployed by Library staff in collaboration with the Weizmann’s Internet Unit. Future plans include the development of an institutional repository containing Weizmann students’ M.Sc. and Ph.D. theses as well as Weizmann scientists’ research output, and the design of online information literacy training system for personnel.

Our Library is, of course, not the only one dealing with the information world’s move into the digital age. Academic and research libraries worldwide have dealt with these changes in various ways. Many libraries now understand that investing in human resources is the best way to deal with these changes, and thus focusing on training staff regularly with new information skills by sending them to academic courses, conferences and workshops, and adding new positions for electronic specialists. Rearranging library departmental structures to fit the cooperative nature of the new information world, and hiring more professional and up-to-date personnel who are well acquainted with modern information skills and a broad perspective of the information world, is imperative.

Thus, there is no doubt that highly-skilled and well-trained library personnel is essential in maintaining a high level of service to library users today. At the Weizmann Institute Library we are constantly working to achieve this goal regardless of our geographical location. With the support of the Institute authorities in our changing needs, we intend to keep providing each Weizmann scientist, student or staff member with all the information they need available just one click away.

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