Chapter 6

Access Control
6.1. Introduction

When it comes to access control to electronic journals there are many issues for libraries to consider: technology requirements, restricted access, access via publisher or aggregator, and making library patrons aware of online access. For years publishers have been providing full-text access to number of journals on CD-ROM, which requires a significant amount of hardware, time, and technical expertise on the subscriber's end.

By the turn of the 21st century, library automation and the Internet had revolutionized information access and library operations around the world. The effect of this revolution has been profound on libraries. Now, libraries can provide information access to users wherever they are located – even to sites hundreds and thousands of miles away. To meet the ever-increasing demands from users for remote access to information, libraries are trying to subscribe to electronic resources such as electronic books, full-text electronic journals and online bibliographic databases, in addition to housing these resources in their printed formats. While the availability of these electronic resources enable remote access to needed information, they also present issues and challenges. One of these challenges is access control to electronic journals. The expectation of library users for seamless access to all articles, and the providers' non-uniformity of access is a critical issue many libraries are facing today.

6.2. Different Methods of Access Control

Publishers allow access by a variety of means - some only by IP [Internet Protocol] authentication, some by means of logon identification and passwords, and some by a mixture of IP address recognition with logon passwords.

Access by means of IP authentication alone will restrict access for valid clients who wish to access resources from locations outside the institutions' IP network. Giving out logon identification and passwords leads to the possibility that these may be shared around beyond the valid client base.
Based on the literature (Alan Armstrong, et al., 2002), there are three methods of access control. These are:

6.2.1. Through ID Login and Password

6.2.2. Through IP Authentication

6.2.3. Through Licensing Policies

All three methods pose inherent problems. More explanation regarding these three methods is given here.

6.2.1. Through ID Login and Password

IDs/Passwords have to be issued to individual patrons, which may not be feasible in large university settings, especially for popular resources. But issued IDs/Passwords can be easily re-distributed by legitimate users to unauthorized users.

Patrons have to deal with many Passwords for a wide variety of titles or systems. Timeliness of access may be compromised while waiting to get needed IDs/Passwords.

6.2.2. Through IP Authentication

IP Authentication is less intrusive and the preferred mode for most libraries because there is no need to give out passwords to users, there are no passwords for them to remember, and furthermore, libraries do not have to manage changing passwords mandated by providers. Despite these advantages, access through IP authentication remains a concern for large academic libraries for the following reasons:

- IP addresses are not contiguous in universities with off-site campuses and centers;
- Some universities provide dial-in through a university modem pool where IP filtering may bar access to remote users;
- Students and faculty who live and work off-campus increasingly have Ethernet connections instead of moderns, and do not have IP addresses within the IP ranges of
the university. Instead, they use addresses provided to them by non-university-affiliated Internet Service Providers (ISPs). For them, special arrangements such as the use of proxy servers that recognize legitimate library users on other authentication schemes, must be put into place;

- Many universities are now implementing systems by which users are not given permanent IP addresses. These systems dynamically generate and assign IP addresses “on-the-fly” for the use of one session. Though these systems of assigning IP addresses represent economies for the communications and computing centers for the universities, they make tracking of problems by IP addresses problematic for libraries; and

- Computers that are locked behind “firewalls” by companies, agencies, or other controlling ISPs cannot be authenticated by any means and so are barred access to electronic resources of the library.

6.2.3. Through Licensing Policies

Some licensing policies tend to be overly restrictive and do not reflect “real world” settings and needs. Some licensing policies restrict by site which can be defined as on-campus or as narrowly as the library building itself. Restriction by site poses problems as more courses and degree programs are being offered online and off-campus students and faculty increase in numbers. These off-campus students and faculty are regarded, and rightly so, by their parent institutions as full-fledged members of their university communities.

Despite potentially varying distant locations, these off-campus students and faculty should have exactly the same access privileges and capabilities as their on-campus counterparts. However, with restriction by site they could be denied the same privileges and capabilities their on-campus counterparts have with regard to information access.

There are other methods of authentication and authorization systems such as Athens and Shibboleth. These two systems are briefly explained here.
A- Athens:

Athens is an Access Management system for controlling secure access to web based services. Athens was initially deployed in the higher education sector in 1996 and has firmly established itself as the de facto standard for secure access management to web-based services for the UK education and health sectors. Athens is, fundamentally, a central repository of organisations, usernames and passwords with associated rights. It has extensive account management facilities for organisations to create and manage usernames and passwords, and to allocate rights to individual usernames.

Each organisation who registers with Athens has an Athens Site Administrator, whose responsibility it is to manage these accounts, and ensure that accounts are only issued to individuals who are authorised to access resources under the terms of the organisation's licences. Athens also offers organisations the opportunity to devolve or federate authentication to their local authentication service (http://www.athensams.net).

B- Shibboleth:

Shibboleth is standards-based, open source middleware software which provides Web Single SignOn (SSO) across or within organizational boundaries. It allows sites to make informed authorization decisions for individual access of protected online resources in a privacy-preserving manner. Benefits of Shibboleth are:

- Reduces time needed to manage access to protected resources. (Sharing class resources among several institutions and managing several hundred accounts...)

- Increases security (Single SignOn - SSO - remembering multiple passwords, acquiring information about the users from reliable providers, etc.)

- Interoperates with similar standards-based solutions (it is based on SAML and thus interoperates with other software based on SAML...)

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Shibboleth also provides extended privacy functionality allowing the browser user and their home site to control the Attribute information being released to each Service Provider. Using Shibboleth-enabled access simplifies management of identity and access permissions for both Identity and Service Providers. Shibboleth developed in an open and participatory environment, is freely available, and is released under the Apache Software License (http://shibboleth.internet2.edu/).

Shibboleth provides a standards-based link between existing campus authentication systems and resource providers of all kinds that makes it easier for users to gain, and resource providers to control access to protected Web resources.

6.3. Commercial Publishers' Access Control Policy

In the present study, the access control policies of the commercial and society publishers in 2003 are critically studied in the following subsections.

6.3.1. Elsevier

Elsevier is a member of the Reed Elsevier plc group, a world-leading publisher and information provider. Operating in the scientific, legal and business-to-business sectors, Reed Elsevier provides flexible information solutions to professional end users, with increasing emphasis on the Internet as means of delivery.

ScienceDirect is a part of Elsevier Headquartered in Amsterdam, the Netherlands, the company is the world's largest scientific, technical and medical information provider and publishes over 1,500 journals as well as books and secondary databases.

Users may use the basic features of ScienceDirect such as browse and article download without registering, either as a guest, or as an authenticated user within their institution's registered IP address range.

Guest users are accessing ScienceDirect through the public domain as a visitor. It is now possible however, for guests to purchase the full-text via "Pay per View". This service allows user to purchase access to articles directly by using a credit card. Access
will be instant and for 24 hours. The price per article for Elsevier Science journals is $30. Licensed users will be automatically recognized as belonging to an institute that has a subscription (http://www.info.sciencedirect.com/about_us.shtml).

Access to the abstracts of articles and journal tables of contents from a multitude of publishers is free to all users. Based on the needs of an institution, ScienceDirect can provide access either to the entire collection of full-text journals and secondary databases, or only to a specified selection. It is also optional for any institute to give user access to non-subscribed journals, via one of the following two payment methods:

- The fee is charged straight to institute’s account; and
- User may purchase the article directly by using a credit card.

Registering to create a personal profile is quick and easy. Once registered users will have access to personalization and alert services, it will significantly improve the efficiency of their online search. It should be noted that registering on ScienceDirect will not give users access to further content, as the content available to them is determined by their institute's subscription.

ScienceDirect uses cookies as well. Cookies are anonymous alpha-numeric identifiers stored by Elsevier on users’ computer which enable it to identify user computer when he/she accesses its web sites. The site cannot determine user’s identity unless he/she chooses to register (http://www.sciencedirect.com/science).

If users choose not to register, Elsevier server recognizes their IP address to enable it to grant them access to the content to which their institute subscribes. ScienceDirect may communicate information to user’s subscribing institute about their visit(s) in collective or aggregated data that does not identify users specifically.

If users choose to disable cookies all together, they will not be able to login to ScienceDirect with a personal username and password. This will prevent user from being able to make use of the advanced personalization features of ScienceDirect, although the basic functionality offered to unregistered users will be possible.
6.3.2. **Taylor and Francis Group**

Taylor and Francis has been publishing peer-reviewed journals for two centuries. Starting with the Philosophical Magazine, the company expanded the range of journals into science and engineering. The latest member of the Taylor and Francis Group are journals previously published by Gordon and Breach Publishing Group, including its imprint, Harwood Academic. In fact, journals published by the Taylor and Francis Group include titles from the imprints of Taylor and Francis, Carfax, Routledge, and Spon Press.

Taylor and Francis currently publishes over 850 academic peer-reviewed journals across a variety of disciplines. In response to the changing needs of the academic community, they are using the Internet to disseminate information about journals in advance of publication (http://www.tandf.co.uk/about-main.html/).

Scholarly Articles Research Alerting (SARA) and the recently released “KeyWord SARA” are popular features of the Taylor and Francis online journals programme where users can select to be alerted to new contents for keywords, individual titles or groups of journals (either by email or on their own tailored home page).

SARA is a service designed to deliver by email, tables of contents for any issue of Carfax, CRC Press, Frank Cass, Parthenon, Psychology Press, Routledge, Spon Press or Taylor and Francis journals to anyone who has requested the information. This service is completely free of charge and users can select to receive alerts by keyword, title, sub-category or main category. This new system does not recognize anyone as an individual user. Institutions may be registered, but users still need an individual account to use SARA. Features such as “SARA”, “Favorites”, and “Keyword SARA” can only be

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1 **Carfax Publishing** was established over 25 years ago, one of the few publishers to concentrate solely on academic and learned journals. This specialisation has been a fundamental factor in their expansion from just one journal in the early 1970s to nearly 220 today.

2 **Routledge** has developed a journal publishing imprint that has particular emphasis on the humanities, social science, business, management and economics subject areas.

3 **Spon Press** publishes journals covering built environment, architecture, planning, sports science and leisure management.
accessed by individually registered users. Registered users with a paid subscription to a
title receive full-text online access to that title.

For registration they need user’s name, email address, and a username and
password of user’s choice. By registering as an institution anyone can download the
URLs for his/her selected journals from the web site. In addition, user can access the
journals directly from the Taylor and Francis web site; from each of the major
subscriptions agents’ gateways and via major Abstracting and Indexing services such as
ISI Web of Science, MedLine (where journals are included) PSYCInfo etc. Moreover,
librarians can link to the online journals directly from their OPAC at either journal title,
volume or specific article level.

Taylor and Francis’ service offers users the option of enabling either IP address or
user name and password recognition. During the registration process users define
themselves in terms of their IP address range if they are in a university campus or
corporate organization and select the journals to which they have current institutional
print subscriptions. When creating a registration, users have to choose how they want to
control access to their online subscriptions.

There are two ways in which access can be controlled:

- *Username and Password* - for organizations who connect to the Internet via a
dial-up service; and

- *IP Address Recognition* - for libraries, universities and other organizations who
have a constant connection to the Internet.

In order to register for IP address recognition users will need to know the IP
address ranges that cover their site. They may need to obtain this information from their
system or network manager (http://taylorandfrancis.metapress.com/app/home/faq.asp/).

In addition, Taylor and Francis’ site makes use of cookies. Cookies are a
technology, which can be used to provide user with tailored information from a Web site.
A cookie is an element of data that a Web site can send to user’s browser, which may
then store it on his/her system. Users can set their browser to notify them when they receive a cookie, giving them the chance to decide whether to accept it or not.

6.3.3. Kluwer Academic Publishers

Kluwer Academic Publisher annually publishes 650 journals and 1200 books, featuring leading authors and researchers from around the world. Located in Dordrecht, Boston, New York and London, the company has 550 employees and is dedicated to providing unequalled service to its authors and customers. (http://www.wkap.nl/home/about/). Kluwer’s policy for online access for institutional subscriber is listed below:

1. Payment of a journals' online subscription fee shall constitute acceptance of these Terms and Conditions.

2. Access to Kluwer Online is over the World Wide Web and access control is based on IP number (no dynamic IP's allowed) and/or domain name checking.

3. Authorized users from the subscribing institution will have online access to the abstracts and full texts of articles from journals for which an online subscription fee has been paid.

4. The subscription covers access to the volumes of the journal(s) concerned in the year of publication and for four(4) further years, with continuing access in subsequent years to be arranged on terms to be decided.

5. The subscribing institution is allowed to copy data from such electronic journals/volumes for the purpose of preservation and/or the creation of a useable archive. Use of any electronic archive copy shall be subject to these Terms and Conditions.

6. Authorized users are defined as employees of corporate entities and public libraries, and all currently affiliated faculty, staff and students of a University campus.
7. Access may be granted from workstations anywhere on the subscriber’s site falling under the domain name(s) or IP numbers (no dynamic IP’s allowed) specified on the order forms.

8. Dial-in access from outside the authorized site is only permitted to users who’s primary work location is within the authorized site.

9. Public access may be provided from workstations on library premises for scholarly research, educational and personal use. Remote access by members of the public is not permitted.

10. Permitted access by authorized users includes the retrieving, displaying, searching, downloading, printing and storing of individual articles for scholarly research, educational and personal use. Copying and storing is limited to single copies of a reasonable number of individual articles. Copying and storing of entire issues is not permitted.

11. Kluwer Online may not be utilized for any commercial or non-commercial fee for service use, or sale. The electronic form may be used as a source for Inter Library Loan (ILL) whereby articles can be printed and these print copies be delivered via postal mail or fax to fulfill ILL requests from an academic, research or other non-commercial library. Requests received from commercial, for-profit companies or directly from individuals may not be honoured.

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16. In the event that Kluwer Academic Publishers determines that it will no longer provide any or all journals over the WWW, it reserves the right to provide subscribing institutions with access to said journals in another format, to be selected by Kluwer Academic Publishers at its sole discretion.

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• **General Cookies.** Kluwer’s cookies enable users to browse consistently through the site. These cookies do not identify them personally in any way.

• **Recognition Cookies.** Once users have registered with a site (for purposes such as full text articles and forum discussion), a recognition cookie helps Kluwer personalize pages to their interests. This type of cookie, however, does not serve as a log on to protected areas.

• **Security Cookies.** This type of cookie is “user selected” and enables the site to remember users’ logon credentials so that they do not have to log on each time they enter a secure area. To select this cookie, users can check “remember my log on” when they sign on. But Kluwer do not recommend this option for individuals at public workstations.

### 6.3.4 Blackwell Publishing

Nearly all Blackwell Publishing journals are available online as well as in the print edition. Subscribing to the online version of a journal offers many benefits to the librarian and readers ([http://www.blackwellpublishing.com/cservices/journalonline.asp](http://www.blackwellpublishing.com/cservices/journalonline.asp)).

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6.3.5. Springer-Verlag

Springer-Verlag is a leading publisher of STM (Science, Technology and Medical Sciences) information. The company was founded in 1842 by Julius Springer in Berlin. Today Springer is an international group of publishing companies with branches all over the world. Well-known publishers like Birkhaeuser, Telos, Steinkopff, etc. belong to this group. The Springer group has about 1400 employees worldwide, with about 1000 of them located in Europe (http://www.springerlink.com/app/home/about.asp).

Springer publishes about 520 journals and offers some 17000 books. In 1997 Springer launched its SpringerLink service. Today more than 400 electronic versions of
print journals, electronic journals and multimedia supplements are offered to 3500 libraries all over the world.

It is not necessary to register with SpringerLink to view abstracts or Tables of Content. User may enter and navigate its web site as a “guest”. But without registering users will not be able to take advantage of special features offered by SpringerLink like Alerting, Favorites, and Free Sample Issues.

Registration is free and simple. Anyone can register as either an “Individual” or an “Institution”(http://www.springerlink.com/app/home/faq.asp). Once users have filled out all necessary fields as an individual user and registration is complete, an email notification will be automatically sent to their email address. The “Registration Complete” page reminds them of their username and provides them with an eight-digit identification number that will be handy if they ever need to contact the SpringerLink helpdesk. Clicking on the “Continue” button will take users back to the SpringerLink homepage where they will be automatically recognized. Users will now be able to take advantage of the special features offered by SpringerLink as a registered user.

In order to register as an institution user it is necessary to enter information about the institution. The SpringerLink will create an “institution” code; typically, institutions use the alpha letters that represent their institution as an acronym. The username will be automatically generated as a combination of the institution code and the tag “admin.” The administrator for the SpringerLink account should be the main contact for all electronic subscriptions.

Then users will have the opportunity to setup authentication-both username and password for the “Admin” (Administrator) side of their account and IP authentication for the “Multipleuser” (Multi User) side of their account.

They will also need to click on the “Contract” link located on this page to open and print the Springer-Verlag electronic publications contract. This contract needs to be typed, signed, and either mailed or faxed to Springer-Verlag within two weeks. If the SpringerLink contract is not received by the publisher within two weeks, users’ access will be revoked.
6.4. Society Publishers' Access Control Policy

6.4.1. Oxford University Press

Oxford University Press currently publishes over 180 journals in a wide range of disciplines, most of which are now available online through their online journals website. Each journal has its own home page providing abstracts from current and back issues, subscription information, and instructions to authors etc. An increasing number of Oxford University Press online journals can also be accessed through HighWire, some of which are part of HighWire's "Free Back Issues" programme. Some Oxford University Press journals are also available as part of other online journal collections such as JSTOR and Project MUSE (http://www3.oup.co.uk/jnls/online/).

Oxford University Press is a member of CrossRef, an industry-wide alliance of commercial, learned society and other non-for-profit publishers. CrossRef has agreed to implement uniform standards, based on use of the digital object identifier (DOI), which will allow seamless navigation by researchers from a reference in a journal article to the content of the cited journal article, typically located on a different server and published by a different publisher.

Whilst the contents lists and abstracts of all journals are freely available, only authorized users may access the full text. For example, the University of Hertfordshire Learning and Information Services has a license agreement for 2003 which allows authorized users, staff and students of the University of Hertfordshire, access to the full text of almost all Oxford University Press online journals.

There are three main access routes available:

1. **Via Oxford University Press**: This is the best route. Authentication is done on the basis of IP (Internet Protocol) addresses. Access using this route is restricted to valid University of Hertfordshire IP addresses. No username and password is required.

2. **Via HighWire**: An increasing number of Oxford University Press journals are available via HighWire, a key electronic journal gateway. Authentication is done on the basis of IP...
(Internet Protocol) addresses. Access using this route is restricted to valid University of Hertfordshire IP addresses. No username and password is required.

3. *Via ingenta:* All Oxford University Press journals can also be accessed via ingenta. To log in to this service users will need their personal ATHENS username and password. Users will need their ATHENS group username and password in order to set up their ATHENS personal account.

It has been said that Oxford University Press has some years of experience of dealing with institutions that belong to academic library consortia. Some academic and corporate customers with more than one site may also have special agreements with Oxford University Press for online licensing rights to the Oxford Journals online collection or a sub-set thereof.

It may be noted that generally the consortial site license entitles users within any institution covered by the license to 24 hour access to all the Oxford Journals online which have been purchased. Site-wide access is arranged via institution's secure network, but remote access can also be arranged for valid IP addresses accessing the network with a modem link, or via a proxy server.

All members (employees, faculty, staff and students) of the subscribing institution are entitled to online access. This includes visitors or members of the public accessing via terminals located on the site and under the control of the subscribing institution. It also includes members using their home computers, provided such use can be authenticated by the institution via password controlled access to an institutional proxy server. Statistics are also available to Consortia and organisations who are accessing titles from the Oxford Journals Collection Online. The nominated administrator for a consortia will be assigned a consortia ID and an administrator username and password for access to the overall statistics for that group. Each consortia member will have their own library administrator username and password providing them with access to the usage for their own organization (http://www3.oup.co.uk/jnls/online/).
6.4.2. Cambridge Journals Online

Cambridge Journals Online (CJO) provides full text for over one hundred journals in the sciences, social sciences, and humanities. This newly upgraded system includes:

- The facility for all users to conduct searches, view tables of contents, and view abstracts for all journals on the site
- A procedure by which registered individuals can receive alerts regarding articles of interest as well as tables of contents for journals of interest
- Simultaneous full-text access for all journals subscribed to by a given institution, regardless of whether individuals at the institution choose to register on the site
- A search engine, which provides full text searching throughout the database, allows the user to set search parameters, and offers the advantages of Boolean searching
- Recognition by IP address and/or domain name for institutional users
- The ability for institutional subscribers to assign an “Account Administrator” who will directly manage the institution’s online subscriptions, including setting and modifying valid IP addresses and/or domains for that institution
- Context-sensitive help screens that will open directly to the relevant help page from the page where the user is experiencing difficulties.
- The option to purchase individual articles online and obtain instant access to full text
- Reference linking via CrossRef and Medline where applicable

For each visitor to Cambridge Journal Online Web page, its Web server automatically recognizes only the consumer’s domain name, but not the e-mail address (where possible).
It may be noted that any institution can appoint any chosen person, most likely in the library, to be the Account Administrator. They will need to register with their own elected password and username. An Account Administrator is the person solely responsible for administering online access for a subscribing institution. It is the responsibility of the Account Administrator to activate online access and configure the IP/domain access rights for the institution's subscription/s.

For the Account Administrator, registration is compulsory in order to use the site. This process involves completing a form which lists users' personal details allowing them to choose their own username and password. As the Account Administrator, they will receive greater access to the site, to enable them to control access for their institution themselves, without the need to contact Customer Service. Once users have registered with their own chosen username and password, they can use the “Set Admin” button to become the Account Administrator. Users will then be able to access the “IP/Domain Config” feature where they can add and delete IPs and domain names. They must stay within the Terms of Use when granting access to additional IPs and domain names (http://journals.cambridge.org/bin/bladerunner/).

Users can access the IP/Domain Configuration feature at any time by choosing “Customise Inst” from the Account Options menu. Registered users can also purchase pay-per-view articles and save links to articles.

6.4.3. IEEE (Institute of Electrical and Electronic Engineers)

The IEEE is a global technical professional society serving the public interest and members in electrical, electronics, computer, information and other technologies. The IEEE offers students a range of products and services, as well as the opportunity to network with other students, professors and other engineers (http://www.ieee.org/portal/index.jsp). All IEEE online publications delivered through the easy-to-navigate IEEE Xplore interface share the same user-friendly features.

Access to tables of contents of IEEE transactions, journals, magazines, conference proceedings and standards is free to all users. IEEE members can search and access all
IEEE abstract/citation records and articles from IEEE Spectrum Magazine as well as online personal subscriptions with an active IEEE Web Account. Corporate, government and university subscribers can search and access abstract/citation records and full-text documents of the IEEE publications to which their institution subscribes.

An IEEE Web Account provides IEEE members, IEEE Society members, and other valued customers access to a variety of IEEE online services. Access privileges to IEEE online services vary based on membership and subscription status. By creating an IEEE Web Account, user can access a growing number of services as they become available through the Online Store. Usernames are assigned on a first-come, first-serve basis. So, IEEE Web Account registration lets users select their unique Username and Password to access to IEEE online products and services. All IEEE Members and Society Affiliates can register (http://www.ieee.org/portal/index.isp/).

Users may need the following number for registration:

1. Member Number from their IEEE membership card, membership renewal invoice or membership confirmation letter (new members only)

2. Registration PIN from their membership renewal invoice or membership confirmation letter (new members only).

IEEE uses Cookies for online IEEE Membership Services. Cookies are small files that stay on users' computer, so that the system remembers who they are and their personal preferences.

The use of cookies is an industry standard of most major web sites and is not used to collect personally identifiable information about IEEE users. The IEEE does not sell or otherwise share any individually identifiable information or any information about its users to third parties (http://www.ieee.org/web/accounts/faqs.html). Users may set up their browser to refuse cookies or to alert them when cookies are sent. It is noteworthy that refusing cookies will limit some custom features and will prevent users from using IEEE Membership Renewal/Add Services. It is IEEE policy that Cookies not carry any of users' personal information (name, email address, credit card information, etc.) nor
identification or password-type data that allows access to such personal information on
IEEE servers. All personal, transaction, and security rights are housed on secure IEEE
servers.

It may be mentioned that a few IEEE electronic services use a different sign-in
system than the IEEE Web Account. IEEE Members and IEEE Society members can
have only one account because Web Accounts are linked to their unique IEEE member
number. Other Valued Customers who are not IEEE Members can create as many
IEEE Web Accounts as are necessary for their business.

6.4.4. MCB University Press (Emerald)

MCB University Press is an independent academic publisher established more
than 30 years ago by a group of academics from the Bradford Management Center, UK.
It is not affiliated to, nor does it receive any financial support from any institution.
Emerald Full text was originally developed for electronic delivery of all MCB
publications. Emerald Full text comprises over 130 MCB journals with full text back to
1994 and abstracts back to 1989. Updated weekly and with over 3,500 abstracts and full
text articles added each year, the database currently offers 35,000 articles
(http://iris.emeraldinsight.com/).

Emerald is one of the first international publishers to provide ‘access to the wider
literature’, assisting researchers by allowing subscribers to key Emerald journals online
access to the abstracts of articles from other journals in the same field.

All Emerald databases are accessed via highly efficient system, using MCB newly
developed search engine. In addition, Emerald Full text can be accessed via a number of
alternative electronic delivery services: ingenta, swetswise, OCLC FirstSearch, Huber,
Silver Linker, EBSCO and Meos.
Access to the Emerald databases is fast and reliable. MCB uses 32 servers around the world to host its electronic material. The servers belong to Catchword⁴ which has recently been purchased by ingenta. So it would seem that local hosting is not an option. MCB University Press is to outsource development and hosting of its electronic journals and database products, and Anbar Electronic Intelligence, to CatchWord.

In order to access Emerald, users need username and password. Once users’ subscription is activated, access is simple and rapid, available at any time, 24 hours a day, 365 days a year (http://iris.emeraldinsight.com/fulltext/index.htm).

Subscription includes:

- Liberal licensing
- Seamless IP-based authentication
- Additional username and passwords for remote access
- Global supporting servers ensuring fast, reliable access
- ATHENS authentication for remote access
- Technical Support

6.4.5. American Psychological Association (APA)

American Psychological Association provides full text access to 42 journals published by the American Psychological Association and other related organizations. Users can search the professional and academic literature in psychology and related disciplines including medicine, psychiatry, nursing, sociology, education, pharmacology, physiology, and linguistics. Coverage is worldwide, and includes citations and abstracts to journal articles, dissertations, book chapters and books (http://www.apa.org/).

⁴ CatchWord was formed in 1994 and provides publishers with comprehensive, tailored, internet publishing services designed to grow their business by deploying cost effective, global and secure solutions. CatchWord works closely with its publisher clients and industry intermediaries to help them exploit the Internet as a delivery and a marketing channel to researchers, scholars, musicians and business consumers of information.
APA has three different electronic packages for the public, members and institutions. E-packages for institutions include:

PsycINFO Database, PsycARTICLES, and PsycSCAN.

PsycINFO is available through site license or on a transaction basis through commercial vendors. American Psychological Association’s full-text journal article database, PsycARTICLES (full-text APA journal articles from 1988 to present) is available to institutions as a separate package from PsycINFO. PsycSCAN is an electronic-only database of abstracts in psychopharmacology (http://www.apa.org/psycinfo/).

PsycINFO is an electronic bibliographic database that provides abstracts and citations to the scholarly literature in the behavioral sciences and mental health. PsycINFO Direct is an abstract (not full-text) database of psychological literature from 1887 till present. It has over 1.7 million abstracts and the price is $11.95 for 24 hours (http://www.psychinfo.com).

Licensing PsycINFO allows users to provide unlimited searching to their community at a fixed annual cost to them. Institutions can access PsycINFO through commercial online services, including DataStar, Dialog, DIMDI, and Ovid Online. All these vendors provide access to PsycINFO and other databases via the Web, but users can also dial-in through TelNet connections. Existing PsycINFO users may search the database now.

To begin, users should choose their type of PsycINFO access listed below:

- Registered PsycINFO Direct User - Already registered with PsycINFO Direct
- APA Member with an Annual Subscription - Silver, Gold, or Platinum subscriber
- Institution / Library Users - Users in libraries or universities
To access PsycINFO Direct, users need the following:

- Internet access
- A Cookies-enabled browser
- American Express, MasterCard, or Visa for online payment via our secure server

PsycARTICLES is a database of full-text articles from journals published by the American Psychological Association, the APA Educational Publishing Foundation, the Canadian Psychological Association, and Hogrefe & Huber. The database includes all material from the print journals with the exception of ads and editorial board lists. An online database containing more than 26,000 searchable full-text articles from 49 peer reviewed journals published by APA and allied organizations from 1988 to the present, with earlier years in production. The PsycARTICLES database covers general psychology and specialized basic, applied, clinical, and theoretical research in psychology. The cost for each article viewed is $11.95.

If user is a current subscriber to PsycINFO and has been considering licensing PsycARTICLES as well, now is the time to take advantage of a new offer. Current or new PsycINFO licenses receive a 15% reduction on the published American Psychological Association data fee for the first year of a new PsycARTICLES license. Institutions can license PsycARTICLES for unlimited use on an annual basis. It is possible to pro-rate the license so that PsycARTICLES and PsycINFO are renewed at the same time (http://www.apa.org/psycarticles/).

American Psychological Association members can access PsycARTICLES as part of the Online Member Service, which provides annual fee-based access to PsycINFO, PsycARTICLES, and other APA electronic resources.

Non-APA members may purchase annual access to APA Gold, which provides annual access to the full PsycINFO and PsycARTICLES databases.
PsycARTICLES is also available on an article-by-article basis through PsycARTICLES Direct. Users can search PsycARTICLES for no charge and pay $11.95 for each article they would like to access.

Generally, all users whether member or non-member have to register and use IP authentication in order to accessing American Psychological Association’s e-packages.

6.5. Summary

Access control to electronic journals is a challenge both for libraries and publishers. Users understandably expect seamless and rapid delivery of electronic publications with links from bibliographic citations to full text. Publishers allow access by a variety of means - some only by IP [Internet Protocol] authentication, some by means of logon identification and passwords, and some by a mixture of IP address recognition with logon passwords.

Among other methods of authentication and authorization system, two systems such as Athens and Shibboleth are used by publishers. Athens is, fundamentally, a central repository of organisations, usernames and passwords with associated rights. It has extensive account management facilities for organisations to create and manage usernames and passwords, and to allocate rights to individual usernames. Athens system was being used by Oxford University Press in addition to “IP Authentication” in 2003.

Shibboleth is standards-based, open source middleware software which provides Web Single SignOn (SSO) across or within organizational boundaries. Shibboleth is developed in an open and participatory environment, is freely available, and is released under the Apache Software License.

The information regarding access control policies of the ten publishers studied is summarized in Table 6.1. As it is seen two commercial publishers including Taylor and Francis and Springer-Verlag use both “User ID and Password” and “IP Authentication” and other publishers use only one method of access control.
Having discussed in this chapter, access control policies of the top five commercial and top five society publishers in 2003, the succeeding chapter is devoted to archiving policies of these publishers.

<table>
<thead>
<tr>
<th>Name of Publishers</th>
<th>User ID &amp; Password</th>
<th>IP Authentication</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Elsevier</td>
<td>-</td>
<td>YES</td>
</tr>
<tr>
<td>2 Taylor &amp; Francis Group</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>3 Kluwer Academic Publishers</td>
<td>YES</td>
<td>-</td>
</tr>
<tr>
<td>4 Blackwell Publishing</td>
<td>-</td>
<td>YES</td>
</tr>
<tr>
<td>5 Springer-Verlag</td>
<td>YES</td>
<td>YES</td>
</tr>
<tr>
<td>6 Oxford University Press</td>
<td>-</td>
<td>YES</td>
</tr>
<tr>
<td>7 Cambridge University Press</td>
<td>-</td>
<td>YES</td>
</tr>
<tr>
<td>8 MCB University Press (Emerald)</td>
<td>YES</td>
<td>-</td>
</tr>
<tr>
<td>9 IEEE (Institute of Electrical and Electronic Engineers)</td>
<td>YES</td>
<td>-</td>
</tr>
<tr>
<td>10 American Psychological Association</td>
<td>-</td>
<td>YES</td>
</tr>
</tbody>
</table>

Table 6.1: Types of Access Control