

# Punch List<sup>1</sup> of Best Practices for Electronic Resources Engineering Libraries Division American Society for Engineering Education (Revised May 2005)

The members of the Engineering Libraries Division (ELD) of the American Society for Engineering Education (ASEE) unanimously endorse the following best practices for electronic scholarly publishing.

The content, stability, and accessibility of electronic resources have vastly improved since the early days of electronic publishing. However, significant outstanding problems persist. After surveying the field, ELD's Best Practices for Electronic Resources Task Force selected and focused on eleven of the most important issues. This list of issues, as well as the best practices addressing them, was unanimously endorsed by the membership of the Division, which includes academic engineering librarians from North American educational institutions of all sizes.

The Punch List of Best Practices covers issues concerning any information resource that requires a computer or other electronic device (such as a PDA) for access. Such resources include books, articles, data, and other electronic content, available either individually or as part of larger collections, and in a variety of electronic formats. Although many of the Punch List items use examples specific to "Web-accessible" content, we use the word electronic in the title to reflect this broader scope.

The Punch List reflects the top priority issues in electronic resources, as well as current best practices. The task force will periodically review the state of electronic publishing as it pertains to engineering education and will revise the Punch List when necessary to reflect progress or changes in the field.

By speaking with one voice we hope to clarify the message and redirect the focus of discussion to these top priority issues. The intent of this document is to inform content providers of practices that are considered best by a large number of librarians. But most importantly, the Punch List provides a starting point for conversation between librarians and content providers, both about the issues detailed in the punch list and about related issues of importance to both groups. The goal is to effect change that benefits all parties involved. The [Best Practices Task Force](#) welcomes your communication on this topic. You can email us at [ELD-PL@u.washington.edu](mailto:ELD-PL@u.washington.edu).

The fine print: In formulating these best practices many existing guidelines were consulted. The guidelines from the [California Digital Library](#), the [COUNTER Project](#), the

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<sup>1</sup> Punch List -- A written list of items, which need to be fixed, repaired or replaced prior to the final walk-through. From KB Home's [Homefinding Dictionary](#), accessed 6/1/05.

[Digital Library Federation](#), the [International Coalition of Library Consortia \(ICOLC\)](#), and the [Zwolle Group](#) were particularly useful. These organizations are to be commended for their insightful and forward thinking approach to these issues. Content providers are strongly encouraged to read the guidelines from these organizations in their entirety for additional and more in-depth coverage of many of the topics we have addressed.

## Issues Addressed in the Punch List:

1. [Access Authentication](#)
2. [Co-Branding of Products](#)
3. [Copyright Issues](#) (Updated)
4. [Cover-to-Cover Digitization](#) (Updated)
5. [Digital Quality](#)
6. [Interlibrary Loan/Electronic Reserves](#) (Updated)
7. [Linking to Content](#)
8. [Perpetual Access](#) (Updated)
9. [Purchase Models](#) (Updated)
10. [Retractions and Corrections \(Errata and Corrigenda\)](#) (Updated)
11. [Statistics](#)

## 1. ACCESS AUTHENTICATION

**Statement:** Access must be available to all authorized users—both affiliates of the library and walk-ins. Affiliates (e.g. full- and part-time students and employees, including all faculty, staff, and other researchers working on grants administered by the institution) must have access to the licensed content regardless of their physical location. Walk-ins include affiliates as defined above and in addition any persons not affiliated with the library who are physically present at any of the library's site(s).

The authorization system must allow affiliates access to the resource from anywhere with a minimum of effort on the part of the library and the authorized user. The current preferred method of authentication uses IP addresses. Authorization systems should handle access via campus proxy servers, and special requirements for access via campus proxy servers should be well documented.

Individual passwords are *not* acceptable. Though not yet a replacement for IP/proxy access, password access via inter-institutional, open source middleware solutions is rapidly becoming important to larger institutions. As an example, Shibboleth offers a mechanism for querying the status of a potential user seeking access to a resource (see appendix). Strong preference is given to content providers who are willing to simultaneously provide IP-based access and implement access authorization through the use of such mechanisms. Further, authorized users must never be challenged with a login/password prompt when non-personalized access is controlled by IP or other means. A login/password requirement for the purpose of allowing personalization of the interaction with the licensed content (e.g., saving favorite documents, an individual

profile, etc.) is acceptable, but must not be a requirement for an authorized user to have access to the licensed content.

**Rationale:** The electronic environment does not fundamentally change rights related to access and use of licensed content. Affiliated users should have the right to easy access to licensed content regardless of their physical location. Where access to print is open to on-site users regardless of their affiliation, access to electronic equivalents must be open as well.

## 2. CO-BRANDING OF PRODUCTS

**Statement:** It is vital for libraries to have the ability to co-brand products with the content provider. It is important to have the ability to name individual campuses within consortia separately, and to use wording of the institution's choice. Strong preference is given to including the concept of payment, as in "Access to this product paid for by [campus library name]."

**Rationale:** Co-branding is vital to ensure that users understand the role the library plays in securing access to research material. Without co-branding users may assume the resource is "free." This undermines the library's ability to make a strong case for future funding and the library's continuing support of the product. Libraries also do a considerable amount of marketing for the content provider's products within our respective institutions. In addition to providing access to the product, we initiate new users to the benefits of the product and we provide training and ongoing support of the product to our faculty, students, and other researchers.

## 3. COPYRIGHT ISSUES

**STATEMENT:** Copyrights are sets of agreements between authors and content providers that govern the use of works of scholarship. Management of copyrights is a complex proposition as the agreements vary by country and by content provider, and can be altered by means of amendment or grant by the parties. This document seeks to highlight for content providers some attributes of copyright agreements that support libraries' ability to promote access to scholarship.

In general, libraries require agreements that support educational uses of scholarly works, and the principle of Fair Use for both authors and licensees of the content, including but not limited to:

- Right to post published article on websites (personal or institutional) or to deposit article in open access institutional repository
- Right to post pre-publications of article on websites (personal or institutional) or to deposit article in open access institutional repository

- Right to make copies for interlibrary loan (from print or electronic format original)
- Right to use copies for reserves and/or e-reserves

Efforts are ongoing to identify and articulate basic principles to guide the development of copyright agreements that address the interests and concerns of authors, content providers, libraries, and other individuals and institutions.

In particular the Zwolle Group, an international collaboration of stakeholders in scholarly publishing, presents key issues and suggestions related to copyrights in the context of electronic publishing. Their guidelines are presented at <http://www.surf.nl/copyright/> and reflect ongoing international discussions on this topic.

**RATIONALE:** It is important for authors, content providers, and users to have a clear understanding of each other's rights and responsibilities regarding electronic scholarly publishing. Myriad and nuanced copyright agreements that require individualized attention impede dissemination of scholarship. Outdated agreements that were not created for the digital environment make common, modern practices for dissemination technically illegal. Due to the increasingly global arena for electronic scholarly communication, international agreement on basic copyrights and responsibilities for all stakeholders is imperative.

#### 4. COVER-TO-COVER DIGITIZATION<sup>2</sup>

**Statement:** Electronic content should be cover-to-cover. Each print edition should have an electronic equivalent that contains all the content found in that specific edition of the print version. This includes all content issued as supplements or special issues in print or in other formats such as CD-ROM. Supplements should be made available online at the same time as the main issue. Electronic versions may include additional content not possible in the print media (e.g. interactive features, video) but not less content than the print. Cover-to-cover content includes, but is not limited to:

Abstracts; Addendums; Advertisements; Announcements; Author Biographies; Award Announcements; Book Reviews; Books Received; Brief Communications; Calendars; Case Reports; Classic Papers; Clinical Practice Reports; Conference Contents Lists; Correspondence; Cover Art; Debates; Directories; Discussions; Editorial Board Members; Editorials; Education Notes; Errata/Erratum; Forewords; Forthcoming articles; Forum Articles; Full-Length Articles; In Memoriam/Memorials; Instructions To Authors; Introductions; Legal Notes; Letters To The Editor And Replies; Literature Alerts; Masthead Information; Miscellaneous; News/News Items; Obituaries; Other Contents; Papers accepted for publication; Patent Abstracts; Patent Reports; Personal Reports; Previews;

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<sup>2</sup> Selected portions of this text adapted from [California Digital Library Technical Requirements for E-Journal Vendors](#), dated May 16, 2003.

Product News/Review; Publisher's Notes; Requests For Assistance; Research Notes; Research Papers; Review Articles; Schedule of Issues; Sequencing Reports; Short Communication; Short Surveys; Software Reviews; Supplementary Materials; Table Of Contents; Test Reviews.

**Rationale:** Libraries require a complete, cover-to-cover, accurate digital replica of the original print resource. This is particularly important as the electronic version becomes the de facto copy of record and the print version becomes a seldom seen and increasingly difficult to access archive.

## 5. DIGITAL QUALITY

**Statement:** Producers of electronic content should adhere; at a minimum; to the specifications for page image and machine-readable text masters outlined in the Digital Library Federation (DLF) document [Benchmark for Faithful Digital Reproductions of Monographs and Serials](#). If those benchmarks are updated in the future, content producers should adjust their processes to meet those revised benchmarks.

**RATIONALE:** Libraries and their users have a right to expect a certain minimum level of quality in all products they buy, whether print or electronic. For an electronic product, this means text and graphics must be sharp and legible in electronic form, and if a paper copy is produced from the electronic, that copy should be comparable to the quality of a print original.

## 6. INTERLIBRARY LOAN/ELECTRONIC RESERVES

**Statement:**

Interlibrary Loan: Licenses should permit fair use of all information for non-commercial, educational, instructional, and scientific purposes by authorized users. Content providers must allow electronic information to be used for non-commercial interlibrary loan between two libraries in support of their teaching, learning, or research missions. The library agrees to fulfill all interlibrary loan requests in compliance with section 108 of the U.S. Copyright Law and the Guidelines for Proviso of Subsection 108(2g)(2) prepared by the National Commission on New Technological Uses of Copyrighted Works. There should be no additional record keeping beyond that required for copyright compliance by borrowing/lending libraries. Restrictions on the version or release of ILL software a library may use should not be part of a license agreement. Libraries should be allowed to update their software as needed to best serve their clientele or improve/streamline their internal procedures.

Electronic Reserves and Course Packs: The library and authorized users must be able to use a reasonable portion of the licensed materials for use in connection with specific courses provided by the respective institution in compliance with the fair use policies.

**Rationale:** The electronic environment does not fundamentally change the concept of fair use. Prohibiting the use of electronic material for non-commercial interlibrary loan and electronic reserves is unacceptable.

## 7. LINKING TO CONTENT<sup>3</sup>

**Statement:** All documents contained in licensed electronic resources should be easily discovered and located by a library's users, regardless of whether those documents are available in a different electronic product licensed by the library, freely available elsewhere in electronic form, available only in print (via a link to/from the library's online catalog record), or available in some other way (e.g. via interlibrary loan or document delivery). All links should resolve at the appropriate level of specificity (e.g. a request for an article should not result in a link at the journal title level). The preferred method of linking to/from electronic content is to use the metadata commonly found in an OpenURL. For information on OpenURL, see the pending National Information Standards Organization standard Z39.88-200X and the associated key/encoded-value (KEV) [format implementation guidelines](#). While other methods are possible (e.g. using Digital Object Identifiers (DOIs), as CrossRef does), OpenURL is preferred.

**Rationale:** A uniform linking solution should be used by all content providers and libraries and should be based upon an industry standard. The emerging NISO OpenURL standard meets these requirements and offers significant advantages to content providers, libraries and users.

Advantages for content providers:

- A URL for any link can be generated dynamically via a single formatting criterion, with no need to vary the format depending on the source of the material.
- A content provider need not offer highly customized linking options for individual licensors, since the licensor's local service can now perform that function.

Advantages for libraries:

- The library does not need to upload its local data to a variety of different systems, since it can develop and maintain its own link server to handle all customized linking.

Advantages for users:

- Users gain direct access to electronic resources licensed for a particular community by the library, to local print holdings, and to other services provided by the library, such as interlibrary loan or document delivery.

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<sup>3</sup> Selected portions of this text adapted from [California Digital Library Technical Requirements for E-Journal Vendors](#), dated May 16, 2003.

## 8. PERPETUAL ACCESS

**Statement:** The content provider must guarantee the library perpetual access to all licensed content and use of that content in accordance with the terms of the existing or, in the case of cancellation of an agreement; the most recently signed license agreement, for so long as the content provider is solvent.

In the case of a current license agreement, the content provider must guarantee electronic access to all material currently or previously licensed by the library, in a format mutually agreed upon.

In the case where a current license agreement no longer exists, the content provider must continue to guarantee access to all electronic content previously licensed to the library, or to provide the source files for the content to the library so that the library may provide its own access to the licensed content.

If the content provider's choice is to offer access on their site to the previously purchased content, it remains the content provider's responsibility to make the content available in the same manner and format that it offers to current subscribers. If the source files are provided to the library, it becomes the library's responsibility to address access and format migration issues.

The content provider must make arrangements to electronically archive all licensed content in a secure manner. The [LOCKSS](#) model should be considered for such archiving.

**Rationale:** In the print environment, a library subscribes to a journal, encyclopedia, or book knowing that one of the values it receives is perpetual access to the content being purchased. Licensing access to a journal, encyclopedia, book, or other resource in electronic form should provide those same perpetual access guarantees. The cost of archiving and migration of formats is understood to be part of the purchase price already paid by the library.

## 9. PURCHASE MODELS

**Statement:** When a resource is available in multiple formats (e.g. print and online), subscription options should be available for any single option or any combination of options.

The option to purchase access to multiple titles from a single content provider for a single cost should be available as an option, but is unacceptable when individual titles cannot also be purchased separately.

**Rationale:** The needs and financial means of individual libraries vary greatly. Content providers should offer libraries multiple purchase options for electronic resources.

Libraries should not be unduly penalized for maintaining access to resources in multiple formats or for not wishing to purchase access to bundled collections of resources from content providers.

**Statement:** Currently there are a number of purchase models in use for subject-specific electronic resources, ranging from one price for all customers to models based on counts of full-time equivalent (FTE) members of an institution. In our estimation a single “best practice” pricing model that would fit all resources and all libraries has not emerged. However, we believe that if an FTE model is offered that it is a much better practice to base the pricing on an FTE count of institutional members whose primary subject affiliations are directly related to the content of the resource and not on the total number of institutional FTEs.

**Rationale:** Subject specific electronic resources are most often used by a limited number of users at a given institution. Libraries and content providers should be able to negotiate an approximate number of FTE users likely to use a specific resource and arrive at a cost based on that number rather than the total number of FTE users at the institution.

**Statement:** Campus wide site licenses for electronic resources should include at no extra charge users at institutionally owned remote locations that are not identified as separate campuses of the institution.

**Rationale:** Libraries at many institutions must provide access to electronic resources for users at numerous remote locations operated by the home institution. In many cases the number of users at a remote location is small and should not be considered a separate campus by the content provider.

## **10. RETRACTIONS AND CORRECTIONS (ERRATA AND CORRIGENDA)**

**Statement:**

In the case of material that is known to be erroneous or controversial:

1. Items under dispute and retracted items must not be removed from the system. They must remain online and be clearly identified as disputed or retracted.
2. The statement of the dispute or retraction must provide an explanation of why the item is being disputed or retracted and must include the complete citation of the original item.
3. Retraction statements and corrections must be clearly linked to the original item, and vice versa. Particular attention should be paid to the placement of the link so that it is readily apparent and not bypassed when the article or the correction/retraction statement is accessed directly through another product such as an indexing, abstracting, or alerting service.
4. Retraction statements and corrections should appear on a numbered page in a prominent section of the journal.



5. Retraction statements and corrections should be listed in the contents page, and include in their headings the title of the article.

In the case of material that the publisher had no right to publish in the first place (as in the case of material published in violation of copyright or prior license arrangements) removal of material is permitted but an explanatory statement must be provided at the original URL along with a link or reference to the legally available version of the material if such exists.

**Rationale:** Reader awareness of article corrections (and retractions) can be of critical importance in engineering and the physical sciences just as in the biological sciences and medicine where the issue has received more attention. Reproducibility of experiments, laboratory safety, and deterrence of scholarly misconduct are just some of the reasons that corrections and retractions are essential and, as such, must be made properly accessible as outlined above. It is also crucial that retracted items not be removed. Removal of retracted items destroys the integrity of the scientific record, prevents widespread peer review (if the article is gone researchers cannot evaluate the disputed article for themselves) and causes reader confusion in locating items.

## 11. STATISTICS

**STATEMENT:** Content providers should provide free monthly use statistics, provided in a timely manner, that meet the [COUNTER Code of Practice](#) requirements. Additionally, use statistics need to distinguish the publication year of the material being accessed during the reporting period broken down by site (each separate campus in a consortium or each institutionally-defined set of IP addresses) and journal title. Abstract downloads should not be counted as full text article downloads.

**Rationale:** These guidelines promote the credible and consistent measurement of usage data in formats that will allow meaningful comparisons of usage between titles from different content providers. Comparable usage statistics at the level of granularity specified above are crucial to libraries' ability to justify expenditures.

## **Punch List Team**

This Punch List was created by the ELD Best Practices for Electronic Resources Task Force and is currently revised and updated by the Punch List Team, a subset of the ELD Scholarly Communication Committee. To contact the entire Team, email [ELD-PL@u.washington.edu](mailto:ELD-PL@u.washington.edu).

Current Punch List Team members:

Mel DeSart (coordinator)  
University of Washington  
[desart\(at\)u.washington.edu](mailto:desart(at)u.washington.edu)

Karen Andrews  
University of California, Davis  
[klandrews\(at\)ucdavis.edu](mailto:klandrews(at)ucdavis.edu)

Bob Heyer-Gray  
University of California, Davis  
[rheyler\(at\)ucdavis.edu](mailto:rheyler(at)ucdavis.edu)

Judy Luther  
Informed Strategies  
[judy.luther\(at\)informedstrategies.com](mailto:judy.luther(at)informedstrategies.com)

Thomas Volkening  
Michigan State University  
[volkenin\(at\)egr.msu.edu](mailto:volkenin(at)egr.msu.edu)

Mike White  
Queen's University  
[whitem\(at\)post.queensu.ca](mailto:whitem(at)post.queensu.ca)

Best Practices for Electronic Resources Task Force members (2003-2005):

Christy Hightower (Chair)  
University of California Santa Cruz

Karen Andrews  
University of California, Davis

Mel DeSart  
University of Washington

Liz Mengel  
Johns Hopkins University

Jim Ottaviani  
University of Michigan

Kate Thomes  
University of Pittsburgh

Tom Volkening  
Michigan State University

## **APPENDIX**

### **SHIBBOLETH<sup>4</sup>**

<http://shibboleth.internet2.edu/>

The Shibboleth attribute authority server offers content providers a simple mechanism for querying the status of a user via XML-based, encrypted messaging. We seek agreements with content providers willing to work both with us to implement access authorization through the use of the Shibboleth mechanism, and simultaneously to provide IP-based access to their resources. In such development, the content provider would be required to install a Shibboleth target server. The Shibboleth software is open source, so there is no license fee, and it is not difficult to install and maintain. For more details, consult the Shibboleth site.

### Recommended Guidelines:

#### **BENCHMARKS FOR FAITHFUL DIGITAL REPRODUCTIONS OF MONOGRAPHS AND SERIALS**

Digital Library Federation (DLF)

<http://www.diglib.org/standards/bmarkfin.htm>

#### **CALIFORNIA DIGITAL LIBRARY**

Technical Requirements for Vendors

<http://www.cdlib.org/vendors/>

#### **COUNTER (COUNTING ONLINE USAGE OF NETWORKED ELECTRONIC RESOURCES)**

Code of Practice

<http://www.projectcounter.org/index.html>

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<sup>4</sup> Selected portions of this text adapted from [California Digital Library Technical Requirements for E-Journal Vendors](#), dated May 16, 2003.

**INTERNATIONAL COALITION OF LIBRARY CONSORTIA  
GUIDELINES**

<http://www.library.yale.edu/consortia/>

**LOCKSS**

<http://lockss.stanford.edu/>

**ZWOLLE GROUP**

Copyright management information:

<http://www.surf.nl/copyright/keyissues/scholarlycommunication/agreements.php>