

Postprint Repository Services: Context and Feasibility at the University of California

Final Draft (3/31/05)

Prepared by John L. Ober, Ph.D.¹

Director, Policy, Planning and Outreach, Office of Scholarly Communication
University of California

Executive Summary and Recommendations For Action

The University of California's Office of Scholarly Communication (OSC) promotes and encourages Universitywide planning and action as necessary to develop scholarly communication systems that are economically sustainable and that leverage Internet technologies to support innovation in all forms of scholarship.

The landscape of scholarly communication and publishing includes significant recent attention to technologies, policies, and business models that allow or encourage open access to research results. A key set of questions appear at the intersection between publisher policies on transfer of copyrights and the knowledge and behavior of authors with regard to their intellectual property. At the center of the intersection is the publicly accessible "postprint" and its standing as a viable additional copy of research results that retains quality control (peer-review) of the published record while overcoming significant barriers to access and impact.

In August 2004 the OSC set out with the generous support of The Andrew W. Mellon Foundation to better understand the context for, and to assess the cost, viability, and potential use of a repository for open-access distribution of UC faculty article publications. In particular, it pursued six research objectives that collectively would provide baseline data about:

- the number and proportion of UC faculty articles that can be made available for simultaneous distribution in an open-access postprint repository; that is, articles that appear in journals whose publishers do not prohibit open-access postprint distribution;
- faculty attitudes toward managing copyright in their work as a means of enabling its open-access distribution.

Findings are detailed in the Results section of this report. The research demonstrates that UC faculty contribute heavily to the published scholarly journal literature. UC faculty published 3.8% (26,000) of the 680,000 articles in a sample of 4,300 scholarly journals indexed by Thomson Inc.'s ISI services in 2003. 76% of those publications are in journals that do not preclude simultaneous open-access distribution of some form of the research results, for example, via an open-access postprint repository. UC faculty contribute in similar proportions to open-access venues as they do to subscription-based journals publications.

UC faculty also make substantial current use of collections of publications on personal and departmental websites, with 18% and 11% of those sites hosting postprints respectively.

¹ The author gratefully acknowledges the efforts of study team members Dayna Holz, Ellen Meltzer, and Laura Fosbender, and comments and suggestions from Dan Greenstein and Catherine Candee.

The study presents three cost scenarios and ten high-level cost elements for postprint repository services. Using these elements it estimates fourfold and sevenfold increased costs for services at particular higher levels of assistance to depositing authors.

Crucially, the study also shows that UC faculty are concerned about copyright and the implications that copyright ownership has on the economics of and ultimately on their access to published research. Faculty mastery of the nuances and the details of copyright, publishing, and open access issues is varied, but it is translated into action by a sizeable proportion and there is a tangible desire to know more by an even greater majority.

Summary Recommendations for Action

Recommendation 1. The University of California should develop and encourage widespread faculty adoption of a postprint repository that leverages the existing infrastructure of and is managed by the University's eScholarship program.

Recommendation 2. The evolution of the core information management environment of the University, including a framework for managing copyright, should be explicitly assessed and articulated because it is directly relevant to the cost, adoption rate, and impact of a postprint repository service and similar publishing innovations.

Recommendation 3. The Office of Scholarly Communication should analyze the potential demand for repository services within the core information management environment described above and develop cost scenarios that acknowledge their interdependence. Further, it should develop and practically assess marketing opportunities to ensure widespread adoption and use of the repository by UC faculty.

Recommendation 4. Critical business, technical, and impact issues should be evaluated formally by the OSC as the repository is developed. Evaluation of these issues will inform the repository's continuation and sustainability planning and the more general community-wide discussion of open-access approaches to scholarly publishing.

Recommendation 5. Widespread faculty acceptance and use of the repository will require the coordinated actions of diverse university constituencies. The Office of Scholarly Communication should be advised by a group able to inform and monitor repository progress, and to mobilize action or influence thinking in those constituencies.

Recommendation 6. The repository's success will depend on how well it integrates with repositories at other institutions and supports the development by scholarly publishers, academic societies, and universities of new scholarly information policies and resources.

Recommendation 7. The Office of Scholarly Communication should formally document and evaluate the repository's development to provide a route-map for others interested in hosting similar initiatives.

Analysis

Data gathered in the course of the Mellon-funded research and from other quarters suggests that a postprint repository developed for UC faculty publications promises significant return on investment (ROI) as measured, for example, in the benefit:

- to UC faculty (whose research will become more accessible than it is currently);
- to the people, educational institutions, and business of California (who support and rely upon the UC's intellectual resources); and
- to the scholarly community in general.

Positive factors in calculating ROI include:

- the volume and quality of UC faculty publications (UC faculty contribute nearly 4% of scholarly publications indexed by ISI, and nearly 6% to publications with impact factors larger than 3);
- the relatively large number of UC faculty publications that are placed with publishers that do not prohibit simultaneous open-access distribution of article content (approximately three-quarters of the publications found in ISI indexed journals may be distributed in some form via postprint repositories);
- the fact that a postprint repository may be developed at UC with marginal additional cost to an existing program (the eScholarship program maintains an infrastructure that will support a postprint repository with modest additional extension);
- the likelihood that UC faculty's widespread use of an open-access repository will influence and encourage comparable developments at sister institutions; and
- the fact that any influence that UC might exercise in this area will be extended significantly should the repository include a large proportion of publications in the new and important field of stem cell research, to which UC will make significant contributions owing to the passage of California Proposition 71.

This hypothesized and significant return on investment – in combination with an apparent researcher readiness for innovation and a liberalization of publishers' rights policies that are revealed by this study and elsewhere – leads to the following recommendations and associated follow up questions.

Recommendation 1. The University of California should develop and encourage widespread faculty adoption of a postprint repository that leverages the existing infrastructure of and is managed by the University's eScholarship program.

Questions and recommendations pursuant to this primary recommendation – already being implemented at this writing in the form of an initial postprint repository service at <http://repositories.cdlib.org/postprints/> – will affect the cost, value and impact of a postprint service and thus the return it delivers on investment. These questions are not readily amenable to research in the abstract. Rather, they require careful evaluation in an operational service context.

Recommendation 2. The evolution of the core information management environment of the University, including a framework for managing copyright, should be explicitly assessed and articulated because it is directly relevant to the cost, adoption rate, and impact of a postprint repository service and similar publishing innovations.

Key components of the information environment are the incentives and services provided to researchers to assist them in the management of their intellectual property. As a specific case of IP – one in which the University has traditionally taken a hands-off role – the dissemination of peer-reviewed scholarly results has a particularly important role in the evolution of scholarly communication. What incentives will encourage faculty to retain appropriate rights in their work and to deposit that work in open-access repositories? What role can the university (or university constituencies) play in creating such incentives, for example through:

- policies and statements of principles (e.g. pertaining to faculty management of copyright);
- practical actions (e.g. in the promotion and tenure committees);
- the provision of instruments (e.g. model agreements that faculty are encouraged to use with those that publish their work);
- the maintenance of easy-to-use repositories for faculty publications;
- the development of new information services that leverage the existence of open-access content and provide tangible benefits to individual faculty (e.g. greater exposure and citation of their work) and the scholarly community at large (e.g. through rich information services that combine distributed open access material to create new and valuable scholarly information resources)?

Recommendation 3. The Office of Scholarly Communication should analyze the potential demand for repository services within the core information management environment described above and develop cost scenarios that acknowledge their interdependence. Further, it should develop and practically assess marketing opportunities to ensure widespread adoption and use of the repository by UC faculty.

What conditions will need to be in place, and what resources required to construct them, to make faculty copyright management and deposit in open access repositories a conventional behavior rather than an exceptional one? To inform the answer to this question, the OSC can leverage the fact that it is hosted by the California Digital Library and therefore is embedded within the UC libraries (as host of key online information services) and the extensive opportunities that exist for its consultation with faculty (e.g. in the faculty senate committee structures that have evolved around libraries and scholarly communications).

What repository services will create incentives to faculty to deposit their publications and create a critical mass of content? Such services could include the publication of current use and citation data, reference linking, integration of article content and underlying research data, and discipline specific information resources. How, and at what levels of expenditure can such services be built (what technical architectures and service infrastructure needs to be in place)?

Recommendation 4. Critical business, technical, and impact issues should be evaluated formally by the OSC as the repository is developed. Evaluation of these issues will inform the repository's continuation and sustainability planning and the more general community-wide discussion of open-access approaches to scholarly publishing.

What are the one-time and ongoing costs of developing, growing, and maintaining the postprint repository and related services? How can costs be predicted and controlled as services scale within the University and across the larger open access landscape? What interrelationships, if any, are there between the postprint repository and current high-use online scholarly information services (Melvyl, UCeLinks, campus online catalogs, inter-library loan)? Between the postprint repository and other publishing innovations?

Recommendation 5. Widespread faculty acceptance and use of the repository will require the coordinated actions of diverse university constituencies. The Office of Scholarly Communication should be advised by a group able to inform and monitor repository progress, and to mobilize action or influence thinking in those constituencies.

Among others, constituencies include those involved in:

- faculty governance (particularly divisional and universitywide senate leadership, and committees on research);
- faculty promotion and reward (committees on advancement and promotion, deans and department chairs);
- university administration (including administration of academic affairs and research, and the university's medical establishment);
- university libraries (which provide a means of promoting and supporting faculty management of copyright and open access deposit);
- the University of California Press (which provides opportunities for strategic partnership that demonstrates whether, how, and to what extent, the availability of open-access article publications can support new forms of revenue-generating information services as may be developed by university presses, academic societies, scholarly and textbook publishers, etc.).

Recommendation 6. The repository's success will depend on how well it integrates with repositories at other institutions and supports the development by scholarly publishers, academic societies, and universities of new scholarly information resources.

To evaluate a number of these issues, and to promote and assess the aggregated impact of similar efforts in the academic community, the University will need to work in partnership with other open-access information providers and with entities that are interested in developing services based upon the distributed holdings of those entities.

Accordingly, the repository should work collaboratively with a small number of partners, including providers of open access content as well as those interested in developing higher-level services with that content, to evaluate the technical and service requirements for extensive interoperability that leads to innovative higher-level information services. Potential collaborators include those at leading research universities where faculty and administration show the same level of commitment to open-access distribution of faculty publication as is evident at UC (e.g. University of Michigan, MIT, Cal Tech, the participants in the Netherlands's DARE project, Southampton). Service providers may be drawn from the research libraries but should also include academic publishers, university presses, and academic societies that will be interested in assessing whether and to what extent the availability of open-access scholarly content may encourage rather than impede commerce, notably through the development of scholarly information services and products.

Recommendation 7. The Office of Scholarly Communication should formally document and evaluate the repository's development to provide a route-map for others interested in hosting similar initiatives.

Results

As described above, the study was designed to provide contextual information regarding UC's research output and the potential volume of postprints as well as baseline data regarding the extent of, potential of, and attitudes toward retaining copyright in scholarly journal articles published by faculty of the University of California. Specifically it sought to inform the strategies for growth of a postprint service component of UC's eScholarship publishing services, and, in so doing, to pilot methods and document methodological challenges for similar work by other institutions. The study was designed with the following six research objectives whose results are reported in this section.

1. **Potential postprint volume.** Estimate the number of UC faculty who have rights to make publicly available an electronic reprint (aka postprint) or author's version of a formally published journal article because of a) an author's explicit retention of rights; or b) by the default copyright policies of academic publishers.
2. **Postprint service cost.** Estimate the costs for a single UC agent to programmatically gather a year's worth of UC-authored articles that are eligible for placement in a postprint repository.
3. **UC participation in non-UC repositories.** Estimate the number of UC faculty who have submitted a postprint to extant non-UC institutional or disciplinary repositories such as arXiv, RePEC, etc.
4. **Personal and departmental postprints.** Estimate the number of UC faculty who are posting postprints on personal and departmental web sites.
5. **Open access journal publishing.** Estimate the number of UC faculty who have published in open access journals.
6. **Copyright attitudes and behavior.** To assist with strategic planning for the extension of the eScholarship postprint and related services, design and test a survey approach to determine researcher awareness, attitude, and current behavior with regard to copyright and copyright management.

1. Potential Volume Of UC-Authored Postprints

A. UC authorship rates

The number of peer-reviewed articles with one or more UC-affiliated authors was determined using data provided under special arrangement by the ISI Web of Knowledge service of the Thomson Corporation. Thomson provided a sample of 4,342 ISI-indexed journal titles from 2003 and associated counts of total articles and articles for which at least one author was affiliated with the University of California (excluding the Los Alamos National Laboratory). The sample represents about 50% of the journals that ISI indexed in 2003.

Table 1. UC authorship rates

Journals	% Articles with UC-authorship	# of UC articles	Total articles
Impact factor < 3	3.09 %	14,038	453,649
Impact factor > 3	5.70	10,515	184,368
Impact factor unknown	3.74	1,585	42,377
All	3.84 %	26,142	680,394

B. Potential postprint volume

OSC staff examined the postprint policies of the 39 publishers represented in the ISI data with 10 or more journal titles. Twenty-seven of these publishers (69.2%) were determined to be “postprint friendly,” i.e. to allow some version of research reported in their publications to be deposited in open-access repositories.

Table 2. UC authorship rates with postprint friendly publishers²

Publisher Postprint Policy Characteristics	# of publishers in sample	# of journal titles	# of articles with UC authorship	# of articles	UC authorship rate
Can use published version – no restrictions	5	145	833	17,571	10.44%
Can use published version – limited to institutional or author site	7	416	2,954	65,982	4.48%
Can use published version – after 3-12 month embargo	2	27	93	2,094	4.44%
Can use published version – total	14	588	3,880	85,647	4.53%
Must use author version – no other restrictions	5	247	1,475	44,281	3.33%
Must use author version & limited to institutional or author site	5	1,436	7,678	254,376	3.02%
Must use author version & advance permission or payment	3	62	143	2,338	6.12%
Must use author version – total	13	1,745	9,296	300,995	3.08%
Postprint friendly Publisher - total	27	2,333	13,176	386,642	3.41%

Table 3. UC authorship rates with 12 postprint unfriendly or policy-indeterminate publishers³

Publisher Postprint Policy Characteristics	# of publishers in sample	# of journal titles	# of articles with UC authorship	# of articles	UC authorship rate
Postprints not allowed	9	444	3,602	79,876	4.51%
Indeterminate postprint policy	3	95	481	10,782	4.46%
Postprint unfriendly or unknown policy - total	12	539	4083	90668	4.50%

2. Estimate Of Costs To Populate UC Postprints Repository

Given the limits of UC or other experience in the creation of postprint services,⁴ the cost estimates in this section were constructed from a set of bounding scenarios and first-order cost elements described below.

² Data categorized by policy type and delimited by publisher and impact factor is presented in appendix I.

³ Data categorized by policy type and delimited by publisher and impact factor is presented in appendix I.

The scenarios vary primarily along an “author-assistance” axis. Given the U.S. academic tradition of researcher autonomy, and the University of California policy that faculty researchers own copyrights in their research results and manage their own intellectual property, the deposit and accumulation of research results in eScholarship – and potentially in similar U.S. research university maintained institutional repositories – is dependent on the deliberate actions of research authors. These actions include such things as retaining rights sufficient for open access deposit during the formal publication process, maintaining an “author’s version” of the work for those cases where rights to deposit and provide access to the formally published version are not retained or secured, granting permission to the institution to provide open access to a copy of the work, and, in some scenarios, actually depositing the work in the repository. In the UC case the need for some direct action on the part of the research author cannot be entirely removed. Therefore, postprint service design and the associated costs are largely connected to the amount of assistance the service provides to the author.

Another way to characterize the author-assistance axis is in a postprint service’s relationship to the institutional information and information policy environment in which it is embedded. An environment can be postulated which is built to strongly encourage and assist faculty in the management of their intellectual property through a core set of values, policies and services. Such an environment would thereby encourage and increase authorial autonomy and decrease needed assistance for postprints per se. Alternatively, an environment which is fragmented or inconsistent with regard to the faculty’s management of their intellectual property may create the expectation, if not the outright need, for high levels of assistance to faculty for any specific service such as managing postprints. Therefore, while all of the scenarios described below are viable, the characteristics of the institutional information environment – or deliberate attempts to evolve such an environment – are likely to strongly influence the feasibility, viability and costs of a specific approach.

Postprint repository cost scenarios

However, the scenarios assume similar costs associated with basic institutional repository (IR) infrastructure, further described under cost elements below.

1. **Minimal author assistance.** Costs and efforts are distributed to the furthest extent possible to the author, who, once aware of the postprint service, secures or verifies rights to deposit a work, locates or creates an appropriate copy for deposit, uses an interface to deposit the work and its associated bibliographic metadata, and verifies that the deposit has been successful.
2. **Moderate author assistance.** Assistance is provided to identify candidate postprints, to verify copyrights and publisher policies, to automate entry of metadata where possible, and perform modest verification and quality assurance checking of the postprints.
3. **Maximum author assistance.** Authors are consulted only to acquire their permission for deposit and, where necessary by publisher policy or publication agreement, to provide an

⁴ Through the support of the California Digital Library, the University of California’s Office of Scholarly Communication operates, at <http://repositories.cdlib.org/escholarship/>, the *eScholarship* open access repository for scholarly materials. Launched in 2002, the repository supports a range of scholarly output, from pre-publication materials to journals and peer-reviewed series. *eScholarship* has received wide acclaim and enjoys rapidly escalating deposits and readership⁴. In March 2005 the first phase of a postprint service was launched. The following cost scenarios are informed by those early results. The current service roughly follows the middle or “moderate” scenario from among the the bounding scenarios presented below.

author's copy as a surrogate for the published version. The service identifies candidate postprints, verifies rights, harvests acceptable copies from publisher sites, resolves and codifies differences between author and publisher versions, and performs technical and content quality assurance.

Postprint repository cost elements

Based on experience drawn from the eScholarship Repository, we find the following cost elements to be useful in considering a postprint service.

1. **Infrastructure development.** Even if basic IR infrastructure is in place, it is assumed that incremental development for postprints will be necessary. Developments might include creation of a new format type of "postprint," acquisition and maintenance routines for postprint specific metadata (e.g. a reference to the formal publication), creation or fine-tuning of deposit routines, postprint specific search, browse, and display routines, help pages.
2. **Technical maintenance.** Hardware and software server maintenance and associated network, storage, backup, and similar costs.
3. **Marketing.** Mechanisms through which authors and readers are made aware of the repository.
4. **Identifying candidate postprints.** The mechanism through which someone or some process becomes aware of the existence of a publication by a UC-affiliated author that might then prompt the creation of an identical or author's version postprint⁵.
5. **Deposit.** Uploading a publisher's or author's version of an item, along with relevant metadata and supplementary materials, through repository interfaces.
6. **Rights verification.** Verification of the author's possession of the right to deposit and make available an open access version of the item. In some cases verification may be done by checking the "default" policy of the publisher, for example as reported in the SHERPA/RoMEO service⁶.
7. **Quality assurance.** Quality assurance may include validity checking – assurance that some content in an expected form has been deposited or that conversion routines (e.g. from Word files to pdf) have been successful – and/or accuracy checking – assurance that all expected content (full-text, supplementary materials, metadata) is present and/or accurate and/or matches the formal publication in expected ways.
8. **Administrative support.** Creation and maintenance of administrative services such as activity logs and reports, user accounts, system documentation, etc.
9. **End-user support.** Online or human-based for any set of actions that author depositors are asked to take. Readers will expect some support services to be available to facilitate their use of the repository.
10. **Preservation.** Assuming that the postprint repository is designed primarily as an access service, separate processes and systems may be needed for long-term management of postprints as a enduring digital asset.

⁵ For eScholarship's phase one postprint service this task is accomplished by searching and harvesting citations from ISI's Web of Knowledge. Citations are then sorted by publisher, filtered to remove citations with publishers who do not allow the use of the work as a postprint, and finally repurposed for embedding in email requests to authors and to provide authoritative (but correctable) metadata should an author choose to respond to the request for deposit.

⁶ The SHERPA project is funded and governed by the UK's Joint Information Systems Committee (JISC) and maintains data about Publisher copyright policies & self-archiving. The community is encouraged by Sherpa to "Use this site to find a summary of permissions that are normally given as part of each publisher's copyright transfer agreement. (<http://www.sherpa.ac.uk/>)

Postprint cost estimates

Given the uncertainty of cost elements and the importance of context – for example, of the existence and size of already available IR infrastructure – the cost estimates below are meant to indicate comparative costs across scenarios rather than absolute costs for any particular postprint repository implementation. The estimates focus on variable rather than fixed costs.

Table 4. Ball park cost estimates

Scenario	Minimal author assistance	Moderate assistance	Maximum author assistance
Cost element			
Infrastructure development	Assumed to be incremental to other service (IR) infrastructure. Non-trivial but largely up-front with some predictable and manageable increments as service matures.		
Technical maintenance	Assumed to be incremental to other service (IR) infrastructure.		
Marketing	Variable by institution with predictable and manageable increments.		
<i>Identifying candidate postprints</i>	<i>Authors' effort; minimal central cost</i>	<i>Citation harvesting and emailing: < \$.10/citation</i>	<i>Citation harvesting and emailing < \$.10/citation</i>
<i>Deposit items</i>	<i>Authors' effort; minimal central cost</i>	<i>Authors' effort; minimal central cost</i>	<i>Harvest publisher versions centrally: < \$2/item⁷; authors' effort for author versions</i>
<i>Rights verification (for items first published by publishers with unknown rights policies⁸)</i>	<i>Authors' effort; minimal central cost</i>	<i>Examine authors' claims; check publisher default policies: < \$15/item</i>	<i>Examine authors' claims; check publisher default policies < \$15/item</i>
<i>Quality assurance</i>	<i>Validity checking only: < \$1/item</i>	<i>Validity checking only: < \$1/item</i>	<i>Validity and accuracy checking < \$5/item</i>
Administrative support	Assumed to be incremental to other service (IR) infrastructure. Non-trivial but largely up-front with some predictable and manageable increments as service matures.		
<i>End-user support</i>	<i>30% of deposits: \$1/inquiry</i>	<i>10% of deposits: \$1/inquiry</i>	<i>1% of deposits: \$1/inquiry</i>
<i>Preservation (ingest only)</i>	<i>\$.10/item</i>	<i>\$.10/item</i>	<i>\$.10/item</i>
Sum of variable cost estimates per 1000 postprints	\$1,400	\$5,800	\$10,150

3. UC Postprint Submissions To Non-UC Repositories

It was not possible to confidently estimate the total number of UC-authored postprints contained within extant non-UC institutional or disciplinary repositories. There were three key challenges in making the attempt:

1. the rapidly evolving set of candidate repositories, especially of institutional repositories, and the lack of a definitive directory of such repositories;⁹

⁷ According to research reported in tables 2 & 3, 22.4% (3880/17259) of UC-authored items are published with postprint friendly publishers who allow use of the publisher's version of an item.

⁸ In our experience approximately 30% of publishers are not covered in the SHERPA/RoMEO data or have policies that need verification.

⁹ Directories consulted included the University of Calgary's Dspace@Ucalgary.ca site

2. the absence or variation of affiliation indicators in repository indexes and search interfaces;
3. the mix of scholarly materials in repositories and the absence of definitive indicators that an object was a postprint.

Despite these challenges study staff were able to examine and estimate UC-authored items and postprints in three of the most well-known disciplinary repositories shown below. The estimates indicate a significant volume of UC-authored deposits; a UC authorship rate in these repositories slightly smaller than in the journal literature reported above; and, as mentioned in the executive summary, the potential for significant challenges in discovery and reader's selection of available or appropriate copies of research results given their existence in journals and/or one or more repositories.

Table 4. UC postprint submissions to non-UC repositories for 200-2004

Repository	# of UC items	# of UC authors	# of UC postprints	UC authorship rate
RePEC ¹⁰	9,010	374	4,680	3.1%
ArXiv ¹¹	2,766	not available	940	1.9%
PubMed ¹²	16,359	not available	4,784	2.8%

4. UC Faculty Postprints On Departmental Or Personal Websites

A profile of efforts to provide access to scholarship through the posting of postprints on personal and departmental websites can assist in the design of UC a UC postprint repository and related services in at least the following ways:

- an indicator of the willingness and number of author researchers who provide access to their scholarship outside of formal publication channels;
- an indicator of the amount of un-coordinated effort and institutional resources devoted to these informal alternative distribution methods;

<http://www.ucalgary.ca/library/dspace/otherrepositories.html>; TARDIS <http://tardis.eprints.org/discussion/eprintarchivessubjecttable9103.htm>; Institutional Archives Registry <http://archives.eprints.org/eprints.php>; Peter Suber's Lists Related to the Open Access Movement <http://www.earlham.edu/~peters/fos/lists.htm>; and Establishing an Institutional Repository by Susan Gibbons, Library Technology Reports, ALA, July-August 2004 – Appendix B: Examples of Institutional Repositories.

¹⁰ The RePEc database was explored through the University of Connecticut's "Ideas" interface to RePEc (<http://ideas.repec.org/>). Because direct searching on author affiliation is not available, the data here are estimates made by interpolating between the count for all known RePEc items and a subset of RePEc data associated with authors that have "registered" with RePEc (<http://ideas.repec.org/i/e.html>) and whose affiliation is available.

¹¹ Inferences about affiliation can be made from the arXiv repository interface's full record search results. An item was assumed to be a postprint or relevant author's version if data was present in the "journal-ref" field, described in arXiv help pages thusly: *When a paper is published, the author may wish to indicate this in the abstract listing for the paper. For this reason, a Journal-ref field is provided for papers. Note that this is relevant only when the author has the full publication information. Messages of the form "will appear in..." or "accepted for..." are not appropriate for the Journal-ref field. Instead, use the Comments field for this sort of information.* (From <http://arxiv.org/help/jref>).

¹² Affiliation is a searchable field in the PubMed Central repository interface.

- an indicator of the amount of postprint material that may be at risk to loss, assuming a paucity of management and preservation mechanisms in place for personal and departmental websites;
- an indicator of the extent of the marketing and coordination challenge if a postprint repository service were to coordinate with, or subsume, these efforts.

Based on random samples of the University of California web space, we discovered the following:

1. ~ 11% or 166 of 1512 UC research institutes have a research output website that includes postprints from the unit's faculty (based on a 10% sample (150/1512) of departments and research units).
2. ~ 3% or 22 of 730 UC academic departments have a website featuring postprints from the unit's faculty (based on a 10% sample (72/720) of departments and research units).
3. ~ 18% or 1,486 of 8,261 ladder-rank UC faculty have a personal webpage that hosts one or more of their postprints; the page itself is most-often hosted by their academic unit. (Based on a sample of 110 individuals drawn from research center units sample above. n.b. 25% of this sample of ladder-rank faculty had duplicate postprints, i.e. on their personal page and on their research unit's research page.)

5. UC Faculty Open Access Journal Publishing

In contrast to the well-structured, single-source journal data available from ISI Web of Knowledge, data about open-access journal publishing is extremely labor intensive to collect and normalize. Therefore, we chose to indicate UC faculty open access publishing habits from the absolute counts across time and campus drawn from a sample of open access journals (n= 143 journals drawn from a population of 837, confirmed via DOAJ¹³ and Ulrich's Periodical Index).

Table 5: UC authors and articles in open access journals

Year	UC-affiliated Articles	UC Authors
2000	71	191
2001	108	278
2002	110	372
2003	141	424
2004	164	504
Total	594	1,769

¹³ The Directory of Open Access Journals maintained by Lund University Libraries at <http://www.doaj.org/>.

Table 6: UC open-access journal publishing by campus

Campus	Unique UC Authors	Total UC Authors ¹⁴
UC Berkeley	155	264
UC Davis	92	104
UC Irvine	78	94
UCLA	240	302
UC Riverside	29	35
UC San Diego	289	389
UC San Francisco	352	454
UC Santa Barbara	2	2
UC Santa Cruz	13	17
Los Alamos NL	3	3
Lawrence Berkeley NL	86	198
Lawrence Livermore NL	5	5
Total	1,308	1,769

6. Copyright Attitudes And Behavior

Key determinants of the adoption of a postprints repository and service are the behavior of scholar's with regard to the retention of rights and use of similar services, and of their attitudes towards and perceived barriers to using repository and other innovative publishing forms. We successfully piloted a survey approach to determine researcher awareness, attitude, and current behavior. The results provide early evidence about a) current UC scholar attitudes toward copyright management; b) scholar awareness of the economic and access effects of publisher/society copyright policies; c) extent of explicit author deliberation about retaining or transferring rights; and d) readiness for (barriers to) changing behavior with respect to explicit rights management as a necessary pre-condition of alternative or parallel publishing via deposit in open access repositories.

The survey instrument drew from similar work reported in the March 2004 CIBER study,¹⁵ was conducted by the UC Santa Barbara Social Science Survey Research Center, and included 16 questions on copyright attitude & behavior; four on open access awareness and relationship to copyright; and six demographic questions. There were 91 respondents, representing a 30% response rate on a random sample of 300 drawn from the entire population of ladder-rank faculty at three UC campuses. The entire survey with results is attached as appendix II.

Among the conclusions that can be drawn from the survey results are the following:

High level awareness/concern about copyright. Fully 41.8% of respondents find copyright somewhat or extremely important when submitting articles; 40% believe that hyperinflation in journal prices is “a problem in my professional life,” 50% said it “calls for change in traditional systems.”

¹⁴ Reflects UC authors affiliated with multiple articles.

¹⁵ Rowlands, et al. Scholarly Communication in the Digital Environment: What Do Authors Want? Findings of an international survey of author opinion project report. 18 March 2004. Centre for Information Behaviour and the Evaluation of Research. City University, London

Awareness of potential significance of open access. Fully two thirds (67.1%) “need” to understand open access alternatives and 74.4% want to know more about open access alternatives.

Attitudes are beginning to shape behavior. Two thirds (66%) of faculty believe it is important to retain rights in their publications. Many have acted on this premise. A fifth (18%) have modified agreements based on copyright terms; Nearly a tenth (8.8%) have refused to sign publication agreements because of their rights restrictions. Only half (50%) sign publisher agreements as a matter of course whether by habit or because they don’t have time to review them.

Understanding of copyright issues is substantial but varied: About half (50%) of the faculty surveyed understand that transferring rights to a publisher may limit ability to post the material elsewhere, use it in a classroom, or place it on library reserves. Regarding the need to explicitly manage copyright in order to use open access 18.8% disagree, 28.2% are neutral, 41.2% don’t know.

Understanding of open access publishing is minimal: Only 6 respondents could name an open access journal; JSTOR, Science Direct, and a subscription journal were incorrectly named as open access alternatives.

Survey research is viable: Following the CIBER study approach, but revealing less ignorance and apathy about copyright than that study¹⁶, this limited pilot suggests that attitudinal and behavioral data can be effectively collected. Such data can reveal areas of faculty concern, limited understanding, contradiction between belief and behavior, variance by career position and discipline.

But more qualitative research is needed: UC, and the academic community at large needs to confirm the extent of the disconnect between attitude and behavior toward copyright; awareness, attitudes, and behavior and to better understand how these are evolving. The difference between these results and the results of CIBER and other studies suggests that attitudes are evolving and/or vary by setting. Replication and comparative tracking of such studies can guide analysis, education and outreach efforts, and the construction of postprint and other alternative dissemination services.

¹⁶ For example, the CIBER study reports the “self-reported indifference of authors to the issue of copyright” (ibid, p. 14).

Appendix I: Potential Postprint Volume - Method And Data

Method

A subset of the sample of publishers used to determine UC authorship rates¹⁷ was analyzed according to publisher policies on copyright as they relate to postprints. Publisher copyright policy analysis was based on the SHERPA database¹⁸, which lists over 100 publishers and their copyright policies. The publishers are categorized in SHERPA into a color-coded rating system borrowed from the RoMEO database¹⁹, where publishers that allow postprints are “Green” or “Blue” and publishers who do not allow postprints are “Yellow” or “White”.

The simplified color-coded rating system of the RoMEO database was inadequate to qualify whether the publisher would allow postprints in all situations. The “Conditions” section for each publisher in the SHERPA database detailed the restrictions on how postprints could be used and in what format. Further research into individual publisher copyright transfer policies, and publicly stated policies on postprints specifically, revealed that the SHERPA listing of “Conditions” accurately reflected the limitations individual publishers put on the use of postprints.

While RoMEO’s simplified color-coding system was a useful starting point to identify publishers that might allow postprints, the color ranking needed to be supplemented by the conditions information to be useful for this study. Not all of the publishers used in the study were listed in the SHERPA database; those with publicly available policies (i.e. on public websites) were researched and analyzed to reasonably determine postprint policies. The same categorization of conditions and restrictions was applied to the publishers who were not included in the SHERPA database. Postprint policies for publishers not included in the SHERPA database and without publicly accessible policies were categorized as “Unknown.”

When categorizing publishers for this study by copyright policies, not all information used to evaluate the policies was explicitly found in the written policies or in the SHERPA database. For example, some publishers specifically prohibit the use of the published PDF version of an article as a postprint. When this restriction was not stipulated in the policy or in the SHERPA database, it was inferred that the publisher allowed the use of the published PDF version. As publisher policies evolve and new policies are created, the categorization and restrictions described in this study will change. In fact, while the study is meant to provide information about publisher copyright policies during the limited time the study was conducted, it is clear that the rapidly changing policy environment poses both methodological challenges for similar work and implementation challenges for those building and populating institutional repositories of preprints and postprints.

Since copyright policies were only analyzed at the publisher level, the study implies that any individual journals published by a particular publisher abide by the same policy. When policies vary by journal title within publisher, the postprint policy for the publisher was rated “Unclear.”

¹⁷ As reported in the body of the report, UC authorship rates were determined by examining data from 3,342 journal titles indexed by the ISI Web of Knowledge in 2003. To examine publisher postprint policies a subset of that sample was created by collapsing subsidiary publishing companies into a single parent company. Of the resulting publishers, analysis continued on the publishers represented in the data by 9 or more titles (n=39).

¹⁸ The SHERPA project is funded and governed by the UK’s Joint Information Systems Committee (JISC) and maintains data about Publisher copyright policies & self-archiving. The community is encouraged by SHERPA to “Use this site to find a summary of permissions that are normally given as part of each publisher’s copyright transfer agreement. (<http://www.sherpa.ac.uk/>)

¹⁹ The RoMEO Project (Rights Metadata for Open-archiving) investigated the intellectual property rights issues related to academic author self-archiving of research papers. The grey/pale-green/bright-green color-coding system has been adapted for use by the SHERPA database, which maintains and updates the original RoMEO data set.

Nearly all publishers stipulated that the published version and/or publisher must be acknowledged when an article is used as a postprint. These conditions were common enough within publisher policies that they were not factored into the categorization of publisher policies. Roughly a quarter of the policies required that the postprint include a link to the published version, but since this had minimal impact on whether the article *could* be used as a postprint, the condition was not used as a factor in policy categorization.

The inclusion of a set phrase to accompany the postprint was another publisher stipulation that was not used as a factor in policy categorization. This condition is not common (roughly one seventh of the sample) and does not significantly impact whether the article *could* be used as a postprint. The restriction should be noted, however, to ensure that authors and institutions know how to comply with the publisher's policy.

Once categorized into types of postprint policies, publisher data was further divided by impact factor and UC authorship rates.

Rights	Conditions	Publisher	impact factor	# of titles indexed in sample	# of papers with UC authorship in sample	# of total articles in sample	%age UC authorship in sample
Postprints allowed by publisher							
Can use the published version		ANNUAL REVIEWS	<i>all titles</i>	27	76	595	12.77%
			>2	23	65	528	12.31%
			<2	2	4	42	9.52%
			unknown	2	7	25	28.00%
		BIOMED CENTRAL LTD	<i>all titles</i>	15	48	965	4.97%
			>2	2	10	188	5.32%
			<2	5	14	316	4.43%
			unknown	8	24	461	5.21%
		HAWORTH PRESS INC	<i>all titles</i>	8	20	291	6.87%
			<2	8	20	291	6.87%
		IEEE	<i>all titles</i>	79	629	13,325	4.72%
			>2	21	232	3,450	6.72%
			<2	57	394	9,833	4.01%
			unknown	1	3	42	7.14%
		WORLD SCIENTIFIC PUBL CO PTE L	<i>all titles</i>	16	60	2,395	2.51%
			<2	16	60	2,395	2.51%
		totals (no restrictions)				145	833
Must be hosted on an intititutional/author server or web page		AMER GEOPHYSICAL UNION	<i>all titles</i>	13	695	6,656	10.44%
			>2	7	419	3,800	11.03%
			<2	2	44	647	6.80%
			unknown	4	232	2,209	10.50%
		AMER METEOROLOGICAL SOC	<i>all titles</i>	9	87	1,385	6.28%
			>2	6	78	1,026	7.60%
			<2	3	9	359	2.51%
		AMER SOC MICROBIOLOGY	<i>all titles</i>	10	283	6,947	4.07%
			>2	9	276	6,751	4.09%
			<2	1	7	196	3.57%

		B M J PUBLISHING GROUP	<i>all titles</i>	19	82	4,170	1.97%
			>2	10	64	3,031	2.11%
			<2	8	10	999	1.00%
			unknown	1	8	140	5.71%
		BLACKWELL	<i>all titles</i>	266	1,178	33,998	3.46%
			>2	85	697	16,890	4.13%
			<2	165	449	16,299	2.75%
			unknown	16	32	809	3.96%
		CAMBRIDGE UNIV PRESS	<i>all titles</i>	58	157	3,432	4.57%
			>2	8	37	428	8.64%
			<2	44	114	2,842	4.01%
			unknown	6	6	162	3.70%
		NATURE PUBLISHING GROUP	<i>all titles</i>	41	472	9,394	5.02%
			>2	33	456	8,529	5.35%
			<2	7	15	832	1.80%
			unknown	1	1	33	3.03%
totals (pub version, inst site)				416	2,954	65,982	4.48%
Time restriction*	NATL RESEARCH COUNCIL CANADA*****	<i>all titles</i>	9	26	1,382	1.88%	
		>2	2	6	205	2.93%	
		<2	7	20	1,177	1.70%	
	MIT PRESS**	<i>all titles</i>	18	67	712	9.41%	
		>2	6	37	349	10.60%	
		<2	6	19	206	9.22%	
		unknown	6	11	157	7.01%	
	totals (pub version, time restr)				27	93	2,094
Cannot use the published version	AMER PHYSIOLOGICAL SOC	<i>all titles</i>	12	272	4,024	6.76%	
		>2	11	271	4,002	6.77%	
		<2	1	1	22	4.55%	
	ARNOLD, HODDER HEADLINE PLC	<i>all titles</i>	9	17	629	2.70%	
		>2	3	6	232	2.59%	
		<2	6	11	397	2.77%	
	ASSOC COMPUTING MACHINERY	<i>all titles</i>	13	65	870	7.47%	

		>2	5	15	195	7.69%
		<2	7	47	626	7.51%
		unknown	1	3	49	6.12%
	IOP PUBLISHING LTD	<i>all titles</i>	29	150	7,308	2.05%
		>2	7	50	1,761	2.84%
		<2	20	92	5,405	1.70%
		unknown	2	8	142	5.63%
	JOHN WILEY	<i>all titles</i>	184	971	31,450	3.09%
		>2	68	579	15,425	3.75%
		<2	101	297	13,788	2.15%
		unknown	15	95	2,237	4.25%
	totals (auth version, no other restr)		247	1,475	44,281	3.33%
Must be hosted on an intitutional/author server or web page	AMER INST PHYSICS	<i>all titles</i>	13	539	12,364	4.36%
		>2	5	453	9,817	4.61%
		<2	7	82	2,531	3.24%
		unknown	1	4	16	25.00%
	AMER PSYCHOLOGICAL ASSOC	<i>all titles</i>	22	131	1,533	8.55%
		>2	16	108	1,197	9.02%
		<2	6	23	336	6.85%
	ELSEVIER****	<i>all titles</i>	902	5,064	177,606	2.85%
		>2	296	2,431	70,164	3.46%
		<2	578	2,578	105,674	2.44%
		unknown	28	55	1,768	3.11%
	SAGE PUBLICATIONS INC	<i>all titles</i>	96	230	4,094	5.62%
		>2	3	10	136	7.35%
		<2	87	212	3,799	5.58%
		unknown	6	8	159	5.03%
	SPRINGER	<i>all titles</i>	403	1,714	58,779	2.92%
		>2	79	414	11,231	3.69%
		<2	281	854	28,992	2.95%
		unknown	43	446	18,556	2.40%
	totals (auth version, inst site)		1,436	7,678	254,376	3.02%

Postprint Repository Services: Context and Feasibility at the University of California

Need advance permission and/or payment for PDF	HUMANA PRESS INC	<i>all titles</i>	13	38	808	4.70%
		>2	5	16	233	6.87%
		<2	7	21	513	4.09%
		unknown	1	1	62	1.61%
	JOHNS HOPKINS UNIV PRESS	<i>all titles</i>	22	37	629	5.88%
		>2	1	3	19	15.79%
		<2	8	15	268	5.60%
		unknown	13	19	342	5.56%
	LAWRENCE ERLBAUM ASSOC INC	<i>all titles</i>	27	68	901	7.55%
		>2	4	10	80	12.50%
		<2	20	47	712	6.60%
		unknown	3	11	109	10.09%
	totals (adv permission)			62	143	2,338
totals (postprints allowed)			2,333	13,176	386,642	3.41%

Postprints not allowed by publisher	AMER CHEMICAL SOC	<i>all titles</i>	33	1,010	25,624	3.94%
		>2	25	943	21,987	4.29%
		<2	7	42	2,625	1.60%
		unknown	1	25	1,012	2.47%
	AMER MEDICAL ASSOC	<i>all titles</i>	9	190	2,162	8.79%
		>2	8	182	1,929	9.43%
		<2	1	8	233	3.43%
	KARGER	<i>all titles</i>	44	105	3,279	3.20%
		>2	11	28	773	3.62%
		<2	29	74	2,363	3.13%
		unknown	4	3	143	2.10%
	LIPPINCOTT WILLIAMS & WILKINS	<i>all titles</i>	131	1,076	22,304	4.82%
		>2	58	745	14,166	5.26%
		<2	67	315	7,845	4.02%
		unknown	6	16	293	5.46%
	MARCEL DEKKER INC	<i>all titles</i>	26	65	3,717	1.75%
		>2	2	5	95	5.26%
<2		22	58	3,382	1.71%	

		unknown	2	2	240	0.83%
	MARY ANN LIEBERT INC	<i>all titles</i>	23	135	1,995	6.77%
		>2	10	61	1,010	6.04%
		<2	12	55	909	6.05%
		unknown	1	19	76	25.00%
	ROYAL SOC CHEMISTRY	<i>all titles</i>	10	76	4,798	1.58%
		>2	7	49	3,246	1.51%
		<2	2	19	944	2.01%
		unknown	1	8	608	1.32%
	TAYLOR & FRANCIS	<i>all titles</i>	138	308	10,640	2.89%
		>2	9	29	659	4.40%
		<2	113	249	9,258	2.69%
		unknown	16	30	723	4.15%
	UNIV CHICAGO PRESS	<i>all titles</i>	30	637	5,357	11.89%
		>2	13	578	4,773	12.11%
		<2	17	59	584	10.10%
totals (postprints not allowed)			444	3,602	79,876	4.51%
Unclear or unknown publisher policy	ASCE-AMER SOC CIVIL ENGINEERS	<i>all titles</i>	14	62	1,167	5.31%
		>2	14	62	1,167	5.31%
	DUKE UNIV PRESS	<i>all titles</i>	18	51	561	9.09%
		>2	2	5	61	8.20%
		<2	6	17	245	6.94%
		unknown	10	29	255	11.37%
	OXFORD UNIV PRESS***	<i>all titles</i>	63	368	9,054	4.06%
		>2	27	276	7,025	3.93%
		<2	27	63	1,605	3.93%
		unknown	9	29	424	6.84%
totals (unclear/unknown policy)			95	481	10,782	4.46%

*Must wait for specified period of time before using the postprint (i.e. 3 months after publication)

** Must wait 12 months after publication

***Some of the OUP journals allow postprints when a fee is paid. The policy varies by journal title and is therefore "unclear" at the publisher level.

****Does not include Cell Press

*****Must wait 6 months after publication

Appendix II. Pilot Survey and Results

Introduction for Respondents:

This survey is sponsored by UC's Office of Scholarly Communication. It is part of research supported by a planning grant from the Andrew W. Mellon Foundation to investigate, understand, and identify potential university actions regarding the challenges and opportunities facing scholarly communication. These 30 questions - taking no more than 15 minutes to answer - focus on scholarly publishing and related issues of copyright. Copyright is a bundle of rights that can be transferred by the author to another party, such as a publisher. Separate copyright components - such as the right to first publication, the right to republish or to use/distribute for non-profit purposes - may be transferred or retained according to contractual agreements between the current owner of the rights and other parties.

We appreciate your help in identifying the questions and issues to address.

Have you had experience in signing publication agreements which required limitations on your holding the copyright for your work? n=90

Yes	70 %
No	12.2%
Don't know/Don't remember	17.8%

2. When attempting to have articles published in your field, how important to you are the copyright terms of the journal to which you submit your work? n=91

Not at all	24.2%
Somewhat	36.3%
Haven't considered it	33 %
Very important	5.5%
A deal breaker	1.1%

3. What is most important to you when you consider publishing in a particular journal n=91

Quality	83
Reputation/Prestige	47
Quality	24
Impact Factor	8
Refereed	2
Quality of Illustrations	2
Readership	50
Appropriateness of audience	27
Size of audience	12
Readership	11
Speed of publication	7
Fact that article is accepted for publication	3
Copyright	1
Miscellaneous	4

4. Are there instances in which you have refused to sign a publication agreement/contract because of concern about the copyright terms?

- | | |
|-----------------------------------|------|
| a. No | 89% |
| b. Yes. Please explain | 8.8% |
| c. Not applicable. Please explain | 2.2% |

5. Are there instances in which you have modified the copyright terms of a publication agreement or contract? n=91

- | | |
|---|-----|
| a. No | 82% |
| b. Yes. Please provide details if possible. | 18% |

6. When attempting to have articles published in your field, how important to you is the commercial status (profit vs. non-profit) of the publisher of the journal to which you submit your work?

n=89

- | | |
|-----------------------------------|-------|
| Not important | 62.9% |
| Somewhat important | 22.5% |
| Very important | 3.4 % |
| A deal breaker | 1.1 % |
| No opinion/Have not considered it | 10.1% |

7. Which statement most accurately reflects your attitude about copyright issues when signing a publication agreement? (Check only one) n=91

- | | |
|---|-------|
| Copyright is not at all important to me | 14.3% |
| I'm neutral on the issue of copyright as it pertains to my publications | 35.2% |
| Copyright is a very important issue to me | 18.7% |
| I don't care about it, but I know I should. | 17.6% |
| Other (specify): | 13.2% |
| Don't know | 1.1 % |

8. Referring back to question 7, please briefly explain your beliefs about the importance or unimportance about intellectual property rights. Check one and complete the sentence. n=85

I believe it is important to retain my rights to my intellectual property because
65.9%

I do not believe it is important to retain my rights to my intellectual property because
34.1%

9. How do you approach publication agreements? Check one. n=86

- | | |
|---|-------|
| I don't really pay attention to them; I just sign. | 25.6% |
| I know they're important, but I don't really have the time to examine or evaluate them. | 25.6% |
| I have no opinion about them. | 8.1 % |
| I sign them and disregard the copyright terms. | 7.0 % |
| I don't sign them, instead I (specify) | 2.3 % |
| Other (specify) | 31.4% |

10. When you sign a publication agreement or contract, do you understand that you may be giving away your rights to ...(check all that apply) n=91

Put the materials on your website or departmental or unit web site	47.3%
Put the materials in an institutional repository	44%
Use the materials in a class that you (or others) are teaching without asking for permission from the publisher	37.4%
Make the materials available for library reserve or course packs without asking for permission from the publisher	45.1%

11. Is it your understanding that when you transfer your copyrights to the publisher, you: (check all that apply): n=91

May give the publisher an economic advantage	66.9%
May limit access to republish the material elsewhere	76.9%
May limit my ability to post it on an internal website	42.9%
May limit my ability to use it freely in teaching and learning	30.8%
Frees me from dealing personally with any legal disputes when copyright is infringed	24.2%
Allows the publisher to deal with any requests for reuse of materials	52.7%
None of the above	8.8 %

12. My reaction to the possible effects of transferring my rights is n=91

a. May give the publisher an economic advantage	Concerned 29.8%	Neutral 43.9%	Not concerned 26.3%
b. May limit access to republish the material elsewhere	Concerned 72.5%	Neutral 17.4%	Not concerned 10.1%
c. May limit my ability to post it on an internal website	Concerned 72.5%	Neutral 17.5%	Not concerned 10 %
d. May limit my ability to use if freely in teaching and learning	Concerned 82.8%	Neutral 13.8%	Not concerned 3.4 %
e. Frees me from dealing personally with any legal disputes when copyright is infringed	Concerned 18.2%	Neutral 54.5%	Not concerned 27.3%
f. Allows the published to deal with any requests for reuse of materials	Concerned 26.1%	Neutral 47.8%	Not concerned 26.1%

13. As you may know, subscription prices have risen much faster than other economic indicators (such as the consumer price index and the healthcare costs index).

This (check all that apply): n=91

a. Indicates economic dysfunction in scholarly publishing systems.	42.9%
b. Is a natural part of market economies.	19.8%
c. Is a problem for libraries.	61.5%
d. Is a problem for me in my professional life.	38.5%
e. Calls for examination of traditional systems.	40.7%
f. Calls for change in traditional systems.	49.5%
g. Other _____	9.9%

14. In cases where you prefer to retain some copyrights but do not negotiate with publishers to do so, what prevents you from negotiating or modifying the copyright terms of the agreement? (Check one only) n=91

a. I need to publish in the journal to get tenure, merit increases or prom	15.1%
b. Refusing to sign might jeopardize my ability to be published.	12.8%
c. It is too much trouble to negotiate with the publisher.	9.3%
d. I don't have the time to negotiate.	10.5%

- e. I don't have the knowledge to negotiate. 12.8%
- f. I have not thought about this issue. 26.7%
- g. Other 12.8%

15. What one thing that would make it easier for you to negotiate or modify the copyright terms of a publication agreement? (Check one only) If: n=87

- a. I had precise instructions and examples of how to do it. 34.5%
- b. I had someone to do it for me. 25.3%
- c. I knew I would not be penalized for not signing it. 20.7%
- d. I don't believe that this is necessary. 14.9%
- e. Other 4.6%

16. How important would it be for you to be able to use your published research in the following ways:

a. Republish it elsewhere in its entirety n=88
 Not important at all 28.4% Neutral 31.8% Very important 39.8%

b. Personally deal with permission requests n=80
 Not important at all 41.3% Neutral 37.5% Very important 21.3%

c. Place it on a departmental or personal web site n=83
 Not important at all 8.4% Neutral 26.5% Very important 65.1%

d. Use it freely in teaching and learning n=84
 Not important at all 2.4% Neutral 11.9% Very important 85.7%

e. Deal personally with legal disputes when copyright is infringed n=83
 Not important at all 41.0% Neutral 51.8% Very important 7.2%

f. Share it in electronic form with colleagues or other interested parties n=91
 Not important at all 5.5% Neutral 17.6% Very important 71.4%

17. Alternatives for unfettered or "open" access to your research include (check all that apply) n=91

- Open Access journals, like _____ 22 %
- Online Institutional repositories 47.3%
- Departmental Web sites 54.9%
- Other _____ 9.9%

18 a. I have to explicitly manage my copyright in order to use open access. N=85

- Strongly disagree 4.7 %
- Disagree 14.1%
- Neither agree nor disagree 28.2%
- Agree 4.7 %
- Strongly agree 7.1 %
- Don't know 41.2%

18 b. As a member of the academy, I need to understand alternatives that provide open access to scholarship. n=88

- Strongly disagree 3.4%

Disagree	4.5%
Neither agree nor disagree	12.5%
Agree	43.2%
Strongly agree	23.9%
Don't know	12.5%

18 c. Would you like to know more about alternatives that provide open access to scholarship? n=86

Strongly disagree	4.7 %
Neither agree nor disagree	16.3%
Agree	52.3%
Strongly agree	22.1%
Don't know	4.7%

Demographic information:

19. Are you n=90

Female	22.2%
Male	77.8%

20. Your latest published paper is in which of these broad domains? n=89

Humanities	32.6%
Social science	27 %
Health science	6.7%
Life science	11.2%
Physical science	22.5%

21. Specifically your latest published paper is within the discipline of _____

22. Your title is n=90

Assistant Professor	27.8%
Associate Professor	13.3%
Professor	58.9%
Other _____	

23. Approximately how many refereed journal papers have your written or co-written?

Mean = 46.7

24. Approximately how many monographs have you written or co-written?

Mean = 7.6

25. Approximately how many monographs have you contributed content to?

Mean = 18.5

26. Which of these roles, if any, have you undertaken in the past year? (Check all that apply)

n=91

Author of journal articles	93.4%
Referee for journal articles	84.6%
Society Editorial board member	14.3%
Journal editorial board member	48.4%

Senior or Managing Journal editor	12.1%
Other	14.3%
None of these	0

The results of this survey will inform a larger study under development, which will include a future survey.

27. Do you have other views or concerns about copyright issues that you would like to bring to our attention now.

28. Do you have any specific views or concerns that you would like to bring to our attention regarding this survey?

Submit.

When survey is submitted, the following message is received:

Thank you for completing this survey. To learn more about managing your intellectual property and related issues in scholarly communication, click here:

<http://osc.universityofcalifornia.edu/manage/>