Challenge and Change: Scholarly Communication and the UC Community
A Report from University of California Scholarly Communication Seminars, Fall 2003
December 18, 2003

At its meeting in November 2002 the Academic Council discussed and endorsed a proposal to hold regional seminars to explore the challenges faced by and the future of scholarly communication. Envisioned to engage a broadly diverse group of UC faculty, the seminars were meant to initiate an evolving partnership for mutual education and exploration of scholarly communication issues between UC faculty and the Systemwide Library and Scholarly Information Advisory Committee (SLASIAC), the University Librarians, the office of Systemwide Library Planning and others.

In July 2003 invitations to nominate attendees were distributed to senate divisional chairs, the University Committee on Library, SLASIAC, and the campus University Librarians by then Academic Senate chair Gayle Binion and University Librarian Daniel Greenstein. (For more background, including a framing statement titled *The Emerging Influence of Technology on Scholarly Communication and Publishing: Planning for a Decade of Change*, see http://libraries.universityofcalifornia.edu/scholarly/fall_03_facultyforums.html.) The seminars were hosted by the Office of Systemwide Library Planning on October 31 (in the north) and November 7, 2003 (in the south).

More than 60 participants hailing from all UC campuses and a wide-ranging set of disciplines, including the sciences and health sciences, humanities, and social sciences attended.

1. Articulating Issues and Challenges
The seminars opened by presenting trend analysis and supporting data for the proposition that the current model for scholarly communication is not economically sustainable. Three factors combine to create and fuel the model's dysfunction:

1. The cost of scholarly publications is - and has been - rising at rates that are several times higher than inflation.
2. The number of scholarly publications of all forms is - and has been - increasing exponentially.
3. University budgets, and library budgets in particular, are at best remaining flat when adjusted for inflation, even as collection and service expectations rise.

While the unsustainable factors have been operating for some time, they have been brought into sharp focus at the University of California due to several recent events and trends:

- the current California state budget crisis and the direct diminution of UC library purchasing power and resources available for service development;
- the emergence of computer and network-based alternative publications that have the potential for experimental reconfiguration of one or more elements of the traditional model; and
- increased communication with and understanding by UC's faculty of the traditional model, its unsustainable elements, and their role and power as the primary stakeholders in scholarly communication.

2. Existing strategic planning and action
The seminar introduction summarized concerted actions taken by the UC libraries individually and collectively that have helped mitigate and disguise the impact of the trends. Specifically, methods for licensing or purchasing material as a 10-campus system have led to volume discounts, especially on electronic resources; leveraging facilities and technology to increase extensive sharing of materials allows UC faculty students and staff to use the 10-campus holdings as if they comprised a single library; and disciplined negotiations have yielded concessions in pricing and

licensing terms. However, significant yield from these actions is unlikely to continue. It certainly cannot continue to compensate for the combined effects of the unsustainable trends mentioned above.

An additional summary of the efforts to build services for disseminating digitally based forms of UC scholarship was presented. The eScholarship program , hosted at the California Digital Library, provides repository services to more than 120 UC research units and departments. The eScholarship Repository is an easy to adopt, robust system for disseminating working papers, technical report series, peer-reviewed series, and UC-sponsored electronic journals. eScholarship also partners with the UC Press and others to provide electronic books and innovative services associated with their use.

3. Potential for new strategies, planning and action

The seminars concluded with in-depth discussion of starting points for revised and additional planning and action to deepen UC's responsiveness to the issues and extend its leadership in effecting change in scholarly communication. Seminar suggestions for strategic planning and action are grouped by broad category below and phrased a series of questions about different kinds of actions. The annex to this report includes that sub-set of strategies that the University Libraries are considering as a means of expanding their existing efforts in this area.

3.1. Institutional actions. The University of California pulls a big wake. Action on an institutional level is therefore likely to have a significant impact.

- Can we as an institution articulate our principles and our goals with regard to the sustainable production and dissemination of knowledge?
- Can we contribute leadership to the academy's analysis of and reaction to the challenges by representing the case to scholarly societies as well as through formal bodies such as the AAU, NASULGC, NAS, and others.
- Can we ensure that promotion policies and practices support our principles and our goals with regard to sustainable economics of scholarly publishing while also ensuring the integrity of the peer review process?
- Can we provide incentives to our faculty to engage (e.g. as authors, editors, and participants in the peer review process) in activities that are likely to have an immediate and/or lasting impact on economics of scholarly publishing?

3.2. Focused investigation into areas where too little is known about the scholarly communications process. There is a great deal we don't know about the scholarly communications process so it is difficult to tie practical actions to testable hypotheses against which we can measure any impacts that those actions might have. Things we know too little about include:

- *Costs:* peer review, publication, and promotion and reward are integrally related but their costs and mechanics can be assessed separately. What are the real costs involved in conducting these activities as they are currently being conducted? How are the costs distributed (e.g. to authors, publishers, libraries, societies)? What costs can be reduced or avoided altogether and how? Without this information, efforts to find alternatives might simply shift the cost burden without reducing it.
- *Value:* what criteria do faculty use (by discipline and by status) to assess the quality of a publication and to determine (e.g. for the purposes of tenure or promotion) what constitutes an acceptable level of quality? Without greater understanding, we might develop alternatives that do not meet our real needs.

- *Value:* What criteria do libraries use to acquire access to publications? Can we quantify these, apply them to different serial publications, notify the results, buy and license accordingly and encourage appropriate and mutually reinforcing actions from faculty?
- *Viable alternatives:* Numerous alternative forms of scholarly publishing have been tried over the past several years. What have we learned from these? What are their successes, and failures? What are the possibilities for and the constraints upon their extensibility (e.g. to other disciplines) and scale?
- *Faculty readiness:* What do we know about faculty readiness (by discipline and by status) to engage in new means of scholarly publishing? How might we target our efforts if we had this information?
- *Incentives:* what incentives could encourage and support faculty experimentation with new means of scholarly publishing? What incentives, for example, would encourage journal authors and/or editors to favor low-cost or even open-access publishing venues over high-cost commercial ones? What incentives would encourage faculty to consider monograph publications that are delivered primarily in electronic form though potentially with some print-based analogs?

3.3. Build on and extend existing organizational capacity. Through its libraries, its Press, and its numerous academic departments and research units, the University of California has developed some very considerable experience with new forms of scholarly publishing. Further progress and national leadership in this area can to a large extent leverage existing investments and expertise.

- The UC press is expanding its profile in electronic journals while the CDL is working on technology infrastructure that can support this effort. Can we extend the infrastructure to support refugee and other journal publications, explore new business models, and establish an economically sustainable leadership role for the University and its Press in this area? How and where should such efforts be targeted strategically?
- The Press and CDL are already able to support the production and distribution of online monographs. Can we extend the infrastructure and build a program that:

  - o cuts the Press's production costs for printed monographs;
  - o effectively attacks the first-monograph problem;
  - o feeds the Press's pipeline with high-quality, peer reviewed monograph publications; and
  - o generates new revenue streams and attract new readers?

- We have an established infrastructure that supports no-cost access to working papers are produced by UC faculty. The so-called eScholarship program manages (and distinguishes carefully between) both peer reviewed as well as non-peer reviewed materials. It attracts papers from over 100 UC ORUs and materials are heavily used. How can we increase the rate and breadth of adoption of this infrastructure? How can we develop it to provide a home for post-prints (that is, an open-access venue for peer reviewed journal articles that are also available from for-fee publishers)? How can we develop it to provide a home for papers presented to UC-based conferences and seminars?
- Libraries are already experienced with systemwide collection of online journals that they acquire wholesale. Can they extend that experience to support more selective systemwide collection development?
- The libraries are already able to manage a great range of digital scholarly materials. Can we extend their efforts to include other material that is enormously valuable and at great risk of loss: research data, learning objects, scientific and other simulations?

3.4. Communicating effectively with all stakeholders. Any success in this area will be tied directly to our ability to communicate effectively with all constituencies (faculty, libraries, publishers, academic societies, both inside and outside UC) that have a stake in the scholarly publishing process.

- How can we present the issues and challenges in a way that helps very different constituencies understand and accept an appropriate level of ownership over the problems, and begin thinking about appropriate actions that may contribute towards effective solutions?
- How do we provide practical and highly targeted guidance for individual and collective actions (e.g. options for managing/retaining intellectual property rights, considering offers to author, edit, or review for or license access to publications).
- How do we describe and effectively promote the very many things we are already doing to address the problem through the libraries, the Press, the Senate and other venues?

3.5. Organizing ourselves for the task at hand. No single constituency with a stake in the scholarly communications process can effectively change its economics. Given the level of interdependency that exists between constituencies all must change or modify their behaviors and practices to some extent. Nor is change likely to be effected by the actions taken by a single institution however collaborative those actions may be across constituent groups.
How do we organize ourselves within UC and in collaboration with other entities to make progress in any of the areas reflected in sections 3.1-3.4. above? The University of California already a scholarly communications program embedded within its libraries; a growing electronic publishing arm of the University of California Press; and a new Systemwide Senate committee on Scholarly Communications. There are also departmental efforts too numerous to mention.

- How do we leverage this existing organizational capacity?
- Is there an appropriate mechanism for ensuring administrative support and where necessary leadership?
- What collaborative or inter-institutional arrangements make sense and how do we achieve them?

Annex A. Reshaping Scholarly Communication
Areas in which to extend the University of California Libraries' current efforts at changing the economics of scholarly publishing

Changing the currently unsustainable economics of scholarly publishing is vital if the University of California Libraries are to continue the high-quality collections and services that their users both demand and deserve. Their commitment to change emerged in 1996 in the report of the Library and Planning and Action Initiative (LPAI). It is reflected in the libraries' scholarly communications and shared collection development programs that were established in response to that report. And aggressively extension of these programs comprise two of the four key recommendations in the libraries' forthcoming strategy which, when published, will supercede the report of the LPAI. The following is an inventory of the actions the libraries are considering. Actions are set out below as a series of questions and in a manner that reflects their organization in section three of the main body of this report.

1. Institutional actions for the UC libraries

- Can the libraries of the University of California articulate their principles and goals with regard to the economically sustainable development and maintenance of high-quality and readily accessible research collections?

- Can the libraries, acting as a system, contribute leadership to the library community generally with regard to its development and implementation of strategies that meaningfully contribute to the achievement of these goals?

2. Focused investigation into areas where too little is known about the scholarly communications process and its impacts on library practices and programs.

- *Costs:* What are the real costs involved to the university libraries in selecting, acquiring, processing, managing, and supporting use of the university's library collections? How are the costs distributed? What costs can be reduced or avoided altogether without materially affecting collection breadth, library services, or the campus libraries' essential distinctiveness?
- *Value:* What criteria do libraries use to select serial publications for acquisition? Can we quantify these, apply them to different serial publications, notify the results, buy and license accordingly and encourage appropriate and mutually reinforcing actions from faculty?
- *Faculty readiness:* What do we know about faculty readiness (by discipline and by status) to support new means of library collection development? How might we target our efforts in this area if we had this information?
- *Value:* what criteria do faculty use (by discipline and by status) to assess the quality of a publication and to determine (e.g. for the purposes of tenure or promotion) what constitutes an acceptable level of quality? How do these criteria impact upon the support that libraries provide to faculty who are interested in low- or no-cost distribution of their publications and other work? Without greater understanding, we might support alternative means of publishing that do not meet faculty's real needs.
- *Viable alternatives:* Numerous alternative forms of scholarly publishing have been tried over the past several years. What have we learned from these? What are their successes, and failures? What impacts do alternatives have on library budgets, workloads, and abilities to cater to faculty needs? How do these experiences influence the way we think about supporting faculty who wish to explore low- or no-cost means for distributing their scholarly work?
- *Faculty readiness:* What do we know about faculty readiness (by discipline and by status) to engage in new means of scholarly publishing? How might we target our efforts if we had this information?

3. Build on and extend existing organizational capacity.

- The UC press is expanding its profile in electronic journals while the CDL is working on technology infrastructure that can support this effort. Can we extend the infrastructure to support refugee and other journal publications, explore new business models, and establish an economically sustainable leadership role for the University and its Press in this area? How and where should such efforts be targeted strategically?
- The Press and CDL are already able to support the production and distribution of online monographs. Can we extend the infrastructure and build a program that:
    - cuts the Press's production costs for printed monographs;
    - effectively attacks the first-monograph problem;
    - feeds the Press's pipeline with high-quality, peer reviewed monograph publications; and
    - generates new revenue streams and attract new readers?
- We have an established infrastructure that supports no-cost access to faculty working papers. The so-called eScholarship program manages (and distinguishes carefully between) both peer reviewed as well as non-peer reviewed materials. It attracts papers from over 100 UC ORUs and materials are heavily used. How can we increase the rate

and breadth of adoption of this infrastructure? How can we develop it to provide a home for post-prints (that is, an open-access venue for peer reviewed journal articles that are also available from for-fee publishers)? How can we develop it to provide a home for papers presented to UC-based conferences and seminars?

- Libraries are already experienced with systemwide collection of online journals that they acquire wholesale. Can they extend that experience to support more selective systemwide collection development of materials in both printed and digital formats?
- The libraries are already able to manage a great range of digital scholarly materials. Can we extend these efforts to include other material that is enormously valuable and at great risk of loss: research data, learning objects, scientific and other simulations?
- The libraries are experienced in sharing in the development and management of scholarly collections in all formats (printed and digital). How can those efforts be extended in new ways to avoid costs without undermining our ability to provide UC faculty, students, and staff with access to scholarly materials in a reasonable time?

4. Communicating effectively with all stakeholders.

Any success in this area will be tied directly to our ability to communicate effectively with all constituencies (faculty, libraries, publishers, academic societies, both inside and outside UC) that have a stake in the scholarly publishing process.

- How can we present library strategies for dealing with the unsustainable economics of scholarly publishing in a way that helps different constituencies understand and practically support them?
- How do we describe and effectively promote the very many things we are already doing to address the problem?

5. Organizing ourselves for the task at hand.

- How do we build expertise within and across the university libraries, and create a network of highly engaged and informed library staff to shape and support systemwide as well as campus-based efforts?
- How can we extend mechanisms for information sharing and collaboration with faculty and faculty governance?
- How can we strengthen existing strategic partnership (with faculty, publishers, societies, other research libraries, and library associations)? What new partnerships mechanisms can we put into place?
- How do we leverage the work of existing all-campus library activities, committees, and functions? What new all-campus activities, committees, and functions are required?