**FACULTY ATTITUDES AND BEHAVIORS
REGARDING SCHOLARLY COMMUNICATION:
SURVEY FINDINGS FROM THE UNIVERSITY OF CALIFORNIA**

**Prepared by
The University of California Office of Scholarly Communication
and the California Digital Library eScholarship Program**

**in association with
Greenhouse Associates, Inc.**

August 2007

Faculty Attitudes and Behaviors
Regarding Scholarly Communication:
Survey Findings from the University of California

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**For the following sections please view the complete report (124 pages) at
http://osc.universityofcalifornia.edu/responses/activities.html**

I. EXECUTIVE SUMMARY

The University of California's Office of Scholarly Communication (OSC) promotes and encourages Universitywide planning and action to develop scholarly communication systems that 1) meet the needs of the University's researchers, teachers, and students; 2) are economically sustainable; and, 3) leverage Internet technologies to support innovation in all forms of scholarship.

With the assistance of consultants from Greenhouse Associates, the OSC initiated a multi-phase study in 2006 that aimed to deepen our understanding of faculty perspectives and behavior on a range of issues and developments within the scholarly communication arena. The study explored UC faculty members' sense of the overall health of scholarly communication systems, and their perspective on the role of tenure and promotion processes, copyright, alternative and emerging forms of publication and dissemination, policy interventions, and key services that the University does or could supply, including those of its eScholarship publishing services.

Informed by a set of 37 structured interviews held in the spring of 2006, the OSC in November 2006 invited a random stratified sample of UC's ladder-rank faculty from all ten UC campuses to participate in a 32-question online survey. Using question sub-components, most questions covered several, or many, aspects of an issue. The 1118 respondents – representing 23% of those invited from the sample and 13% of the UC faculty population – came proportionately from all faculty ranks and disciplines.

Results of the survey – available in summary and statistically detailed forms in sections II and IV of the report respectively – reveal a profile of UC's community of scholars where:

- Faculty are strongly interested in issues related to scholarly communication.

- Faculty generally conform to conventional behavior in scholarly publication, albeit with significant beachheads on several fronts.

- Faculty attitudes are changing on a number of fronts, with a few signs of imminent change in behaviors.

- The current tenure and promotion system impedes changes in faculty behavior.

- On important issues in scholarly communication, faculty attitudes vary inconsistently by rank, except in general depth of knowledge and on issues related to tenure and promotion.

- Faculty tend to see scholarly communication problems as affecting others, but not themselves.

- The disconnect between attitude and behavior is acute with regard to copyright.

- University policies mandating change are likely to stir intense debate.

- Scholars are aware of alternative forms of dissemination but are concerned about preserving their current publishing outlet.

- Scholars are concerned that changes might undermine the quality of scholarship.

- Outreach on scholarly communication issues and services has not yet reached the majority of faculty.

- The Arts and Humanities disciplines may be the most fertile disciplines for University-sponsored initiatives in scholarly communication.

- Senior faculty may be the most fertile targets for innovation in scholarly communication.

The OSC is sharing these results openly and widely, as a contribution to campus and University-wide strategic planning, and in the hope that they will inform the scholarly communication program planning of non-UC stakeholders. Within UC, the results are being made available to various segments and stakeholders in order to assist ongoing efforts to:

- Contribute to strategic planning and implementation of a range of publishing services made available to faculty, departments, and research centers;

- Redirect and fine-tune outreach and education activities that deepen scholars' understanding and inform their actions with regards to disseminating and using research results;

- Inform the University's contributions and responses to policy proposals and other environmental developments;

- Organize and prioritize faculty attention through ad hoc as well as formal governance venues.

II. SUMMARY OF FINDINGS

A. SUMMARY

In November 2006 the University of California's Office of Scholarly Communication sent an invitation to 4,870 of its 8,000+ ladder-rank faculty members inviting them to participate in a 32-item online survey that would allow the University to "better understand trends in scholarly publishing, so that ultimately the University can continue to support and respond to changes in this essential endeavor." Replies were received from 1,118 respondents (22.9%), making this survey one of the largest of its kind,[2] and providing rich data to help inform the University's strategic and practical planning to support its scholars' use and dissemination of research results.

The survey results show a gap between attitude and behavior on the part of University of California ladder-rank faculty. The UC faculty largely conform to conventional behavior regarding scholarly communication, such as publishing in traditional venues, but widely express a need for change in the current systems of scholarly communication.

While faculty evidence interest in learning about new scholarship and dissemination activities occurring across the scholarly community, their awareness of alternative scholarly communication opportunities is generally low, and they express varying levels of concern about issues relating to commercial and society publishers, publishing costs, and copyright.

Faculty consistently do express concern about the existing promotion and tenure processes at UC. They believe that such processes are not keeping up with the evolution of scholarly communication, although few faculty members at this time express interest in actively changing their own behavior or in fomenting change within the responsible institutions. Indeed, they identify the obstacle to change as the existing reward systems of tenure/promotion (and even grant-making), which favor traditional publishing forms and venues.

In addition, it appears that the faculty is under-informed on a range of issues and initiatives designed to foster innovation in scholarly communication, including some that emanate from their own governance structure and from UC's eScholarship programs and services. Faculty indicate that the best way to inform and educate them on such issues is through direct communication from the Office of Scholarly Communication, campus library and librarians, and departmental meetings.

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[2] Notable among these are: 1) Swan, Alma and Sheridan Brown. *Open Access Self-Archiving: An Author Study.* Key Perspectives Ltd. 2005.
http://www.keyperspectives.co.uk/openaccessarchive/reports/ (Sponsored by JISC; 1296 respondents); and 2) Rowlands, Ian, Dave Nicholas, and Paul Huntingdon. *Scholarly Communication in the Digital Environment: What Do Authors Want? Findings of an International Survey of Author Opinion: Project Report.* London: Centre for Information Behaviour and the Evaluation of Research, Department of Information Science, City University, 2004.
http://www.ucl.ac.uk/ciber/ciber-pa-report.pdf (sponsored by UK Publishers' Association; 3787 respondents).

B. SPECIFIC CONCLUSIONS

Faculty are strongly interested in issues related to scholarly communication

Faculty across all ranks and disciplines are interested in scholarly communication and in learning more about the new forms it is taking. One indication is the relatively high response rate to the survey itself (20%+), and the relatively low rate of "abandonment" (24%) by respondents who failed to complete the 32-item survey once they had started it. Another indicator of interest is the number of respondents who took extra time to add optional comments, many of them lengthy, in several places throughout the survey. Thematic highlights of these comments are available in Appendix A.

University of California faculty generally conform to conventional behavior in scholarly publication, albeit with significant beachheads on several fronts

Faculty see their own and their peers' publishing as the critical currency of scholarship and academic success, and in so doing overwhelmingly rely on traditional forms of publishing, such as peer-reviewed journals and monographs. Faculty also tend to believe in traditional measures such as citations and impact factor as proxies for the value of research. They also believe in peer review as an effective mechanism for maintaining the quality of published scholarship. There is limited but significant use of alternative forms of scholarship, with 21% of faculty having published in open-access journals, and 14% having posted peer-reviewed articles in institutional repositories or disciplinary repositories.[3] Such publishing appears to be seen as supplementing rather than substituting for traditional forms of publication. Furthermore, the large majority of faculty authors readily cede their copyright rights to scholarly societies and to commercial publishers. However, 7% of faculty authors have modified the copyright terms of a publication contract, and 4% have refused to agree to terms and thereby have forgone the opportunity to publish in a significant journal.[4]

While faculty attitudes are changing on a number of fronts, there are few signs of imminent change in behaviors

Survey results highlight an apparent disconnect between the faculty's expressed level of concern and willingness to take action. Even on issues where faculty express substantial concern, such as copyright or the price of journals, faculty show little evidence of changing behavior. Indeed, notwithstanding their expression of concern about the present, when projecting their future behavior, about 75% of faculty indicate that their publishing activities are likely to remain largely unchanged.[5] The majority's lack of motivation to alter behavior appears to be connected on the one hand to the tradition-bound tenure and review process, and on the other hand to the need for explicit forms of assistance, such as in the management of copyright.

The current tenure and promotion system impedes changes in faculty behavior

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[3] See findings from Question 19.
[4] See findings from Questions 7 and 8.
[5] See findings from Question 20.

Repeatedly, respondents indicated both in survey responses and free-form comments that the current tenure and promotion system drives them to focus on conventional publishing activities that are accorded the most weight toward their professional advancement.[6] Assistant Professors tend to feel the most constrained by impositions of the tenure and promotion system, although Associate Professors also exhibit some of the same attitudes and behaviors, albeit to a lesser extent.

Faculty appear to consider the act of publishing itself to be sufficient for accomplishing their goals. Once an article or monograph has been published (presumably by a publisher with a solid reputation), scholars are less concerned about the process of dissemination, and whether its impact is measured directly rather than via the surrogate of the publication venue. In large measure, this lack of concern is due to the tenure and promotion system, which rewards publication over broader dissemination.

Furthermore, UC faculty appear to believe that nearly all published materials eventually appear online through the efforts of publishers or aggregators, and are accessible to almost anyone on the Internet. Such is not the case, however, as many published materials are legally accessible only by subscription or with the explicit author/institutional act of alternative or supplementary dissemination. These misconceptions may well stem from the UC faculty's access to an unusually rich set of subscriptions and resource-sharing services managed by the University's libraries.[7]

On important issues in scholarly communication, faculty attitudes vary inconsistently by rank, except in general depth of knowledge and on issues related to tenure and promotion

Chi-squared analyses and Analysis of Variance indicate that Full, Associate, and Assistant Professors tend to have similar views about key issues, such as the roles of scholarly societies and commercial publishers, the cost of journals, and the management of copyright. With two exceptions, responses that do vary on different issues by faculty rank tend to reflect a matter of degree rather than fundamental differences.

On matters of tenure and promotion Assistant Professors show consistently more skepticism about the ability of tenure and promotion processes to keep pace with or foster new forms of scholarly communication. On many issues, Assistant Professors more often admitted uncertainty or lack of knowledge.

Faculty tend to see scholarly communication problems as affecting others, but not themselves

While faculty often acknowledge problems with the current system of scholarly communication, they tend to disassociate themselves from these issues. For example, while faculty members see a large adverse impact on their institutions and on other scholars resulting from high journal prices, relatively few say that the problem affects

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[6] See especially findings from Question 2f and 5 and selected quotes in Appendix A, "Impact of Promotion and Tenure Processes."
[7] While this observation was not necessarily evident from the survey, it was shown in a previous phase of research conducted through interviews with UC faculty.

them.[8] Similarly, while they feel that too much research is being published, they do not believe that they are publishing more than they ought to. In free-form comments, several faculty members said that the issues addressed by the survey might have more relevance to disciplines other than their own.

The disconnect between attitude and behavior is acute with regard to copyright

While faculty tend to agree that management of copyright is an important factor in the evolution of scholarly publishing, fewer than half report that it is an important factor in their own scholarly publishing, and even fewer take action to retain copyright rights.[9]

University policies mandating change are likely to stir intense debate

In May 2006, a special committee of the UC Academic Council proposed that faculty routinely grant to the University a limited, nonexclusive license to place their scholarly publications in a noncommercial, publicly accessible online repository.[10] Under the proposal, granting this license would be the default situation, but faculty could choose to opt out. Despite full faculty governance review and discussion, the survey revealed that the vast majority of the faculty was unaware of the proposal. Asked to opine, based on a short précis of the proposal, 50% of the respondents expressed; support was tempered by concerns about implementation and impact.

Among those whose free-form comments supported the proposal, the two main reasons were a perceived right of the University to lay claim to its faculty members' output, and a view that the University would have the clout to force change on publishers such that individual scholars would not have to do it individually.

Among those whose free-form comments opposed the proposal, key issues included whether the University should be involved in fostering new forms of scholarly communication; the need for University involvement, given that other parties, such as discipline-specific bodies and government agencies, already have undertaken such efforts; and whether the University has competence in these areas. Several respondents were concerned that the proposed policy might adversely affect their relationships with publishers, publishers' financial viability, or publishers' willingness to publish works from UC faculty. While many of these concerns appear to emanate from respondents who do not understand the UC proposal and its implications (indeed, 75% reported that they had not previously heard of the proposal), these reactions reveal a strong reliance on existing publishers.

Scholars are aware of alternative forms of dissemination but are concerned about preserving their current publishing outlets

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[8] See findings for Question 3d-f.
[9] See findings for Questions 6 through 11 and selected quotes in Appendix A, "Copyright Issues."
[10] See "Draft UC Open Access Policy and Working Group Report at http://osc.universityofcalifornia.edu/openaccesspolicy/; see findings for Questions 14 and 15.

Approximately two-thirds of faculty respondents reported being aware of or knowledgeable about open-access journals and repositories of open-access content.[11] Faculty appear unwilling to undertake activities, such as forcing changes on publishers, that might undermine the viability of the system or threaten their personal success as traditionally evaluated. Again, revealing a gap between attitudes and behaviors, few respondents indicated personal dissatisfaction in terms of content, access, or economics of their own publishing, despite relatively high levels of general concern. There is no dominant view about the potential impact of open-access publishing. However, a number of free-form comments highlighted concern that new forms of scholarly communication might come at the expense of existing publishers. For example, with regard to open access, some respondents voiced concern that it would undermine the financial viability of societies or commercial publishers, or that new payment models might simply shift the cost burden from institutions to individual faculty authors.[12]

Scholars are concerned that changes might undermine the quality of scholarship

Consistently throughout the survey's free-form comments, faculty indicated that they want to preserve the quality of published works, regardless of the form or venue.[13] Many respondents voiced concerns that new forms of scholarly communication, such as open-access journals or repositories, might produce a flood of low-quality output. Faculty showed broad and strong loyalty to the current peer-review system as the primary means of ensuring the quality of published works now and in the future, regardless of form or venue.

Outreach on scholarly communication issues and services has not yet reached the majority of faculty

A striking finding of the survey was the lack of faculty knowledge about the potential change in University policy (mentioned above): the University Senate's proposed requirement that every faculty member routinely grant the University a limited, nonexclusive license to place their scholarly publications in a non-commercial, publicly accessible online repository. The lack of awareness among faculty is noteworthy, both because of the proposal's potential impact and because at the time of the survey it had been under discussion in Senate forums for more than a year.

Similarly, respondents were overwhelmingly unaware of eScholarship services, a University-wide set of tools and electronic publishing services for enabling the electronic creation and dissemination of published and unpublished works. This is an interesting contrast to the relative success of eScholarship, as evidenced by the significant quantity, quality, and regularity of contributions and the heavy use that content receives.[14]

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[11] See findings for Question 17 and selected quotes in Appendix A, "New Forms of Scholarly Communication."

[12] See findings for Question 18 and selected quotes in Appendix A, "New Forms of Scholarly Communication."

[13] See selected quotes in Appendix A, "Perceived Importance of Peer Review."

[14] As of this writing, the eScholarship Repository included 17,500 faculty vetted articles contributed by over 200 research units and departments; the cumulative 5.6 million articles downloaded represent an average of more than 25,000 articles uses per week. eScholarship also

Despite a broad range of Universitywide and campus-based web information and outreach – sponsored in large part by the Office of Scholarly Communication and the campus libraries – as well as focused Academic Senate attention,[15] the faculty remain largely unaware of and disengaged from m scholarly communications issues, University policies, and the tools and services that are available to foster innovation and potentially alter the measures of their professional success. Although the survey uncovered faculty preferences in how to be informed, further study is needed to determine whether the lack of awareness stems from a lack of communication overall, ineffective communication methods and venues, or other causes.

The Arts and Humanities disciplines may be the most fertile disciplines for University-sponsored initiatives in scholarly communication

The survey indicates that there is generally more appetite for change among faculty in Arts and Humanities than within the Social Sciences, Life & Medical Sciences, or the Physical Sciences. Arts and Humanities also evidence the most concern about copyright and its impact on scholarly communication, in general and in their own related activities. The sciences have been seen as the leading disciplines in adopting new forms of scholarly communication, as evidenced by their use of disciplinary repositories and their shift away from monographs toward more rapid forms of dissemination such as on-line journals. Ironically, it may be because these practices are so well entrenched that respondents in the sciences voice limited support for University-sponsored initiatives. In contrast, Arts and Humanities scholarship and the subsequent dissemination of such scholarship are inherently different than the experiences of the sciences overall, and, as such, Arts and Humanities faculty express greater interest in alternatives, the need for change, and a call for discussion and help.

Senior faculty may be the most fertile targets for innovation in scholarly communication

Although perhaps counterintuitive, given the perception that once faculty achieve tenure and a more senior rank they become more resistant to change, the survey results overall suggest that senior faculty may actually be more open to innovation than younger faculty. Senior faculty are free from tenure concerns, and although many are still driven by a desire for promotion, they appear more willing to experiment, more willing to change behavior, and more willing to participate in new initiatives. Therefore, senior faculty may well serve as one starting point for fostering change. Furthermore, because senior faculty are both involved in making academic policy and serving as role models for junior faculty, their efforts at innovation are likely to have broader influence within their departments.

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hosts 19 open-access journals and peer-reviewed series and, through its collaboration with the UC Press, nearly 2,000 electronic books.

[15] See http://osc.universityofcalifornia.edu; http://libraries.universityofcalifornia.edu/scholarly/; http://www.universityofcalifornia.edu/senate/committees/scsc/; and http://www.universityofcalifornia.edu/senate/committees/ucolasc/