

## **A Faculty Led Response to the Crisis in Scholarly Communications**

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## **Abstract**

Oregon State University's recent response to the crisis in scholarly communications recognizes that teaching faculty must be involved in communicating an appropriate response to their faculty colleagues. As authors, editors, and peer reviewers, direct faculty action can encourage publishers to lower costs and can enhance the availability of research. The author discusses the work of a faculty-led task force that communicates information about unsustainable journal costs to faculty peers and the actions that can be taken to counteract this trend. In particular, the author discusses the use of academic unit publication reviews to effectively communicate journal cost variations to faculty.

## **Introduction and Background**

Academic librarians have long been intimately familiar with the cost inflation and monopolization of scholarly journals and the resulting, negative effects on the ability of libraries to collect the materials crucial to the research needs of their faculty and students. Libraries have been informing their faculty about journal cost inflation for at least 20 years to little effect. The recent Oregon State University (OSU) response to the crisis recognizes that libraries cannot effect change to the scholarly communication process without the direct participation of the teaching faculty in their roles as authors, editors, peer reviewers, and members of promotion and tenure committees.

In this paper I discuss faculty involvement in the work of a Scholarly Communication Task Force. The OSU Faculty Senate appointed prominent faculty from natural sciences, humanities, social sciences, the university research office and two library faculty to the

task force. The task force recommends specific actions to faculty that have the most impact in reducing journal costs and increasing their accessibility.

I discuss the work library and teaching faculty accomplish together on the task force, with a focus on the use of academic unit publication reviews as an effective method of communicating journal cost information to faculty. I hope OSU's experience of faculty involvement in tracking and communicating issues pertaining to the cost of scholarly journals serves as a model for other institutions doing their own part to incrementally decrease journal costs and enhance the availability of research.

### **Unit Specific Publication Reviews**

The task force found that the optimal method of communicating information about journal costs to faculty is through review and analysis of the journals in which faculty from different academic units publish. Task force members survey faculty from their academic units to identify the journals in which they have published over the previous 3-5 years. In many cases, academic units already maintain publication information for other purposes, so the information is often readily available.

To date, 10 unit-specific reviews have been completed. These reviews include over 500 journals in which OSU faculty publish. The reviews allow a comparison of prices and impact factors for commercial versus non-profit journals. Each of the faculty members who shared the information with their academic units found this was an effective way to present the information. The information arrives from a particularly trusted source -- a

peer from within the academic unit -- and focuses on the journals with which the faculty are familiar. It cannot be overstated how important it is that the person presenting the data to the academic units is a peer faculty member from that academic unit, a champion familiar with the academic unit's faculty, their publication habits, their professional society memberships, and editorial board status.

### **The Process**

The task force member sends the title list of publications to the library. The library compiles a spreadsheet that includes journal title, cost for print subscription for an institution of OSU's size, journal impact factor, and publisher information. Cost for print subscription serves as a simple and accurate representation of a journal's cost and allows for journal costs to be easily compared.

The library returns the spreadsheet to the task force member. The task force member analyzes the data, identifies extremely high cost journals, and compares cost with impact factor. In collaboration with the library, the faculty member prepares the data so that it is meaningful to the particular academic unit's faculty. The task force member often writes accompanying text that summarizes the data or describes some relevant issues of scholarly communication for which the academic unit's faculty should be aware. Often this includes a presentation of open access journal alternatives within their field of study and the increased citation of open access journal articles.

As an example, a faculty member on the task force took the data provided by the library for her college and compared the journals published in commercial vs. non-profit journals. She identified cost per page figures and arrived at some notable conclusions [See Appendix A]. Cost per page for the commercial journals in which the faculty published was \$0.98/page versus \$0.39/page for scholarly society journals. Excluding *Science* and *Nature*, the average impact factor for the commercial journals was lower than scholarly society journals in which the college faculty published.

### **Other Task Force Activities**

In addition to the unit reviews of faculty publications, the task force completed an end of the year report (OSU Faculty Senate Scholarly Communications Task Force, 2005) that contained the findings and recommended actions of the task force. Appendices to the report included information about the OSU institutional repository and copies of the unit-specific publication reviews. A faculty senate resolution supporting open access written by the task force (OSU Faculty Senate Scholarly Communications Task Force, 2005) passed at the meeting.

Task force members sponsor an annual OSU Editors meeting. The meeting creates a network of editors to discuss on-going scholarly publication issues of cost increases, copyright retention, electronic access and electronic archives. .

Task force members published a series of four articles in *OSU This Week*, a weekly newsletter of faculty news stories and features delivered to all OSU faculty and staff. The

articles describe journal cost inflation and cost comparisons between commercial and non-profit journals conducted by leading economists and the task force, an article about the uses and misuses of journal impact factors and the conditions that go into journal impact calculations.

Other articles published by the task force members discuss the potential of open access journals as a new model for peer-reviewed scholarly publication and an article about the university's institutional repository. The library posts longer versions of these and other related articles, presentations, and unit reviews to a Faculty Senate collection within the institutional repository for easy review and retrieval by faculty.

### **Continuing the Work**

In 2006, the task force transitioned with the Faculty Senate Library Committee to take on the ongoing responsibility of encouraging changes to faculty publication behaviour. At least one member of the original task force remains on the committee to serve as a resource in order to apply consistency to the group's efforts over the years.

The committee continues to conduct unit-specific publication reviews. New committee members conduct the studies for their academic units each year. The committee plans to make the reports available for any requesting unit and for units undergoing academic review. For academic units that have already gone through the process, the committee intends to review publications again after three years to see whether publication habits have changed.

## **Conclusion**

It is too early to determine if the work of the task force has an impact on faculty publishing, reviewing, retaining copyright, archiving in institutional or subject repositories, or on promotion and tenure review policies. Anecdotal evidence supplied by task force and committee members suggests the unit publication reviews are effective in making faculty aware of the cost of the journals in which they publish. The discrepancies between the cost of journals published by commercial firms versus those published by non-profit publishers surprise faculty. Faculty have expressed an interest in submitting their research to the institutional repository as a result of reading the articles in *OSU This Week*. Librarians also report increased faculty interest in retaining copyright to their articles following the publication of the articles in *OSU This Week*.

Because of their prominent roles in the publishing process as authors, reviewers and editors, faculty impact publishers in a way that libraries cannot: by refusing to publish in journals whose escalating costs impact their availability, by refusing to review for those journals and by taking action as editors and members of editorial boards. Real impacts to scholarly communication can only happen if faculty refuse to participate in the continuing scholarly communication crisis, as authors, reviewers, editors, and promotion and tenure committee members.

## **About the Author**

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## **References**

Oregon State University Faculty Senate Scholarly Communications Task Force, “Scholarly Communications Task Force Report to the Faculty Senate,” at [http://ir.library.oregonstate.edu/dspace/bitstream/1957/1794/7/task\\_force\\_report\\_appendices\\_final.pdf](http://ir.library.oregonstate.edu/dspace/bitstream/1957/1794/7/task_force_report_appendices_final.pdf), access 15 March 2007.

Oregon State University Faculty Senate Scholarly Communications Task Force, “Resolution Proposed by the Scholarly Communications Task Force,” at <http://oregonstate.edu/dept/senate/agen/reports/2005/06d.html>, accessed 15 March 2007.

## Appendix A

### **Review of College of Oceanic and Atmospheric Sciences Publications**

The Task Force analyzed subscription costs for journals most often used by faculty from three OSU units (Chemistry, COAS, and Human Development and Family Sciences). For the period from 1994-2003 COAS faculty published most frequently in 42 journals. These included 20 commercial publishers, 20 professional journals, and *Science* and *Nature* that were put in a separate category. The resulting data base was used for a cost comparison for print subscriptions and evaluation of differences in impact factor. Costs for electronic subscriptions are even more convoluted (time period covered by electronic versions, permanent archiving, bundling of less important journals, etc.). Neither electronic subscriptions nor author costs (page charges and reprint costs) are covered here.

The collective cost to the library for these journals in 2004 was \$73,812. Commercial journals cost on average \$0.98 per page. Professional journals cost on average \$0.39 per page. Publication costs are similar for these journals so the difference in price per page reflects the larger net profit that commercial publishers are collecting for their products. *Science* and *Nature* cost only \$0.15 per page, but these two journals bring in a substantial amount of their revenue from advertisement.

*Science* and *Nature* are popular publishing venues due to their extremely high impact factors (mean = 30.38). *Science* is published by AAAS (a professional society) and *Nature* is published by the Nature Publishing Group (a commercial publisher). COAS authors published 33 papers in these two journals between 1994-2003. This represents 4% of the articles included in the data base.

The average impact factor for the other commercial journals was 1.796. The average impact factor for the professional society journals was 2.580. This indicates that the professional journals not only cost less per page (for library subscriptions) but also represent a significantly higher quality of scientific publication. COAS authors published 484 articles in professional society journals between 1994-2003. This represents 62% of the articles included in the data base.

The Task Force encourages faculty to publish in professional rather than commercial journals when they have a choice. We also encourage faculty to review for professional and to decline to review papers for commercial journals. Continued support of the professional society journals will help promote the sustainable pricing of scholarly publications for academic institutions.

COAS Journal name	Library Cost	Publisher	2003 IF	2004 Pages Per Year	( 94-03) Times Published	Cost Per Page
<b>Commercial Journals</b>						
Appl. Geochem.	\$1,140	Elsevier	1.804	1995	13	\$0.57
Atmosph. Environ.	\$5,707	Elsevier		7121	6	\$0.80
Chem. Geol.	\$3,817	Elsevier	2.330	4059	13	\$0.94
Cont. Shelf Res.	\$2,130	Elsevier	1.191	2551	11	\$0.84
Deep Sea Res. I	\$2,449	Elsevier		2169	19	\$1.13
Deep Sea Res. II	\$4,950	Elsevier		3101	37	\$1.60
Earth Planet. Sci. Lett.	\$3,774	Elsevier		6859	25	\$0.55
Fuel	\$2,910	Elsevier	1.167	2443	5	\$1.19
Geochim. Cosmochim. Acta	\$2,673	Elsevier		5204	23	\$0.51
J. Mar. Systems	\$2,319	Elsevier		2343	6	\$0.99
Mar. Chem.	\$2,143	Elsevier	2.555	2044	8	\$1.05
Marine Geology	\$3,738	Elsevier		3689	7	\$1.01
Org. Geochem.	\$3,028	Elsevier	1.712	1634	23	\$1.85
Progress in Oceanography	\$2,518	Elsevier		1166	15	\$2.16
J. Fluid Mech.	\$2,303	Cambridge Univ.	1.811	9284	6	\$0.25
Mar. Ecol. Prog. Ser.	\$4,691	InterResearch		5809	16	\$0.81
Boundary-Layer Meteorology	\$2,222	Kluwer		2218	13	\$1.00
Origins life Evolution Biosphere	\$598	Kluwer		346	5	\$1.73
J. Petrology	\$1,159	Oxford Univ.		2612	5	\$0.44
J. Plank. Res.	\$452	Oxford Univ.		1566	7	\$0.29
	<b>\$54,720</b>		<b>1.796</b>		<b>263</b>	<b>\$0.99 Cost/Page</b>
<b>PROFESSIONAL SOCIETIES</b>						
Environ. Sci. Technol.	\$1,507	ACS	3.592	1200	20	\$1.26
Geochem. Geophys. Geosystems	\$585	AGU		2885	8	\$0.20
Geophys. Res. Lett.	\$1,593	AGU	2.422	6520	40	\$0.24
Global Biogeochem. Cycles	\$596	AGU	2.338	1992	6	\$0.30
J. Geophys. Res.	\$6,782	AGU	2.992	31688	171	\$0.21
Paleoceanography	\$426	AGU	3.043	1440	22	\$0.30
J. Atmos. Ocean. Tech.	\$349	AMS	1.637	1945	29	\$0.18
J. Atmos. Sci.	\$730	AMS	2.641	3133	19	\$0.23
J. Climate.	\$622	AMS	3.617	4909	8	\$0.13
J. Phys. Oceanogr.	\$545	AMS	2.209	2856	62	\$0.19
Mon. Wea. Rev.	\$680	AMS		3077	17	\$0.22
Shore & Beach	\$51	ASBPA		164	9	\$0.31 estimated
Limnol. Oceanogr.	\$416	ASLO	3.329	2316	21	\$0.18
J. Coastal Res.	\$190	CERF	0.077	1252	9	\$0.15
IEEE Geosci.Remote Sensing	\$590	GRSS		2892	5	\$0.20
Geology	\$539	GSA	3.065	1072	11	\$0.50
Microb. Ecol.	\$1,015	ISME		1051	5	\$0.97
Applied Optics	\$2,754	OSA		6687	10	\$0.41
Mar. Mam. Sci.	\$123	SMM		900	5	\$0.14
Oceanography	\$810	TOS		552	7	\$1.47
	<b>\$20,903</b>		<b>2.580</b>		<b>484</b>	<b>\$0.39 Cost/Page</b>
Nature	\$1,292	Nature	30.979	5908	16	\$0.22
Science	\$635	AAAS	29.781	8428	17	\$0.08
	<b>\$1,927</b>		<b>30.380</b>			<b>\$0.15 Cost/Page</b>