Maximizing Scholarship's Impact:
Barriers & Opportunities

1:30pm - 4:00pm | Library Wilby Room

This professionally facilitated seminar is designed to engage faculty, researchers, and managers in discussions about the publishing and rights management issues pertinent to scholars. John Ober, Director of the Office of Scholarly Communication for the University of California system, and Lee Van Orsdel, Dean, Libraries at Grand Valley State University, will lead and facilitate this session on the current state of scholarly publishing, the legislative activities that affect research impact and dissemination, and the need for faculty to take ownership of their rights as authors. Speakers will address how partnering with libraries can alleviate some of the barriers that may...
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- under a Creative Commons Attribution /Non-commercial / Share-Alike license.
Scholarly Communication is a system that includes:

- Core functions of "Publishing":
  - Dissemination
  - Registration (establish intellectual precedence)
  - Evaluation/certification (assess accuracy/quality)
  - Preservation

The results of Research & other scholarly inquiry are managed by the system and inform/accelerate additional access, which is necessary for academic & societal impact.
“Size” of the scholarly communication system

- ~24,000 scholarly journals
- ~1.4M/year scholarly articles
- 172K (U.S.; 2007) books published/yr
- ~15,000 from univ. presses
- $9-12 billion STM pub. revenue/yr
- ~2,000? academic blogs
- ~100 hours to write an article
- ~3-6 hours to review an article

Source: blog info from technorati (find blogs about: “academic”); others from Scientific publishing in transition: an overview of current developments; http://www.stm-assoc.org/overview-of-stm/
The system’s legal engine

Scholarly Communication is a system that includes:

- Research & other early inquiry
- Accelerates additional access
- Necessary for academic & societal impact

Core functions:

- "Publishing"
  - Dissemination
  - Registration (e.g., intellectual precedence)
  - Evaluation/certification (assess accuracy/quality)
  - Preservation

Copyright (in the academic environment)
The First Journals

LE JOURNAL DES SCAVANS
Du Lundi 7 Janvier M. DC. LXV.
Par le Sieur DE HEDOVVILLE.

A PARIS,
Chez IeAN Cysson, rue S. Iacques, à l’image de S. Iean Baptiste.
M. DC. LXV.
Avec Privilege du Roy.

PHILOSOPHICAL TRANSACTIONS:
GIVING SOME ACCOUNT
OF THE PRESENT Undertakings, Studies, and Labours
OF THE INGENIOUS
IN MANY CONSIDERABLE PARTS
OF THE WORLD

Vol I.
For Anno 1665, and 1666.

In the SAVOY,
Printed by T. N. for John Martyn at the Bell, a little without Temple-Bar, and James Allestry in Duck-Lane;
Printers to the Royal Society.
Royal Society copyright policy

“The copyright of all material published by the Society shall normally be assigned to the Society.”¹

“The author grants to the society … the exclusive right throughout the world to edit, adapt, translate, publish, reproduce, distribute and display the Article in printed, electronic or any other medium and format whether now known or yet to be developed.”²

²Royal Society. License to Publish.
Seven Points to Understand About Copyright

1. U.S. Copyright law establishes the exclusive rights of authors and other creators of original works.
2. Copyright rights include the right to reproduce, distribute, display, and perform the work, as well as the right to make derivatives of the work.
3. You do not have to sign away your rights when you publish, though it is traditional in academic publishing for publishers to require the transfer of all copyrights as a condition of publication. You can negotiate to either transfer or retain certain rights, such as the right to use the work in your classroom.
4. The transfer of copyright can have important and nuanced consequences. For example, a course instructor may be unable to make copies of her own work to distribute to her students for class use, even though she has the original work. This can happen if the copyright to the work has been transferred to another party.
5. The transfer of copyright can affect the scholarly communication of the work. For instance, if a publisher has market power on the publisher as the exclusive owner of the rights to the scholar’s work. This can be problematic when the interests of the scholar conflict with the interests of the publisher.
6. By academic tradition and University of California policy, for most works created by faculty in the course of their teaching and research, copyrights belong to the faculty author. See the UC policy on copyright ownership and the policy on ownership of course materials.
7. It therefore falls to the faculty as individuals to manage the copyrights of their scholarly works in ways that foster academic goals.
Bundle of rights

Submit Manuscripts Online at www.apscentral.org

Physiological Genomics

What rights do publishers need?
What rights do you need to confidently, legally use and control your work?

I do hereby assign and transfer to the American Physiological Society (APS) all rights, title, and interest in and to the copyright in the above-titled work. This includes preliminary display/posting of the abstract of the accepted article in electronic form before publication.
Georgia Tech assures that the benefits of its discoveries are widely disseminated and used in society.
The system’s cultural engine

“..transmitting advanced knowledge, discovering new knowledge…

...and functioning as an active working repository of organized knowledge.”
The system’s cultural engine

American Chemical Society, Our Mission

Advance the chemical sciences and technologies
Communicate the value of chemistry and chemical engineering to the public
Support the chemical profession and its practitioners
Lead the diverse chemically-related professions for the benefit of society
“Normative code” of scholarly work

1. Open, free exchange of ideas
2. Publication [in journals and books, and …]
3. Meritocracy – reward people on the basis of quality of work
4. Organized skepticism – weight of evidence
5. Common ownership – products of social interaction, ultimately assigned to the community

AAU IPR Task Force report. See http://www.aau.edu/reports/IPReport.html
Market economy

<table>
<thead>
<tr>
<th>Cost element</th>
<th>Proportion of costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Refereeing</td>
<td>22%</td>
</tr>
<tr>
<td>2. Editorial and typesetting (i.e. from acceptance to first copy)</td>
<td>33%</td>
</tr>
<tr>
<td>3. Subscription management</td>
<td>7%</td>
</tr>
<tr>
<td>4. Physical production and distribution (including postage)</td>
<td>23%</td>
</tr>
<tr>
<td>5. Sales and marketing</td>
<td>13%</td>
</tr>
<tr>
<td>6. Promotion to authors</td>
<td>2%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

A strange market

[With thanks to Carl Bergstrom. “Fostering a culture of open access.” See http://www.arl.org/sparc/meetings/ala07mw/bergstrom.pdf]
Prestige economy

Citing URL: http://www.in-cites.com/top/2006/index.html

[Screenshot from Thomson/ISI “InCites” service (associated with their Web of Knowledge product)]

For each of the 22 fields below from the six bimonthly periods in 2006, the top 10 most cited researchers are listed with ≥5 papers published and cited during specific bimonthly updates of Essential Science IndicatorsSM. (That is, 10-year plus each successive two-month addition of publication and citation figures, through the most recently available update.) The rankings, based on overall citations, may change slightly from one bimonthly update to the next, as new papers and new citations are added to each field and updated.
The standard for evaluating scholarship is publication or presentation at peer-reviewed, refereed outlets…
Subsidy/gift economy

- Universities subsidize libraries
- Research agencies subsidize (some of) the research
- All scholarly publishers receive their core content for free
- Most publishers receive [most] editorial work for free
Market economy produces barriers to access: affordability
Barriers to access: affordability

<table>
<thead>
<tr>
<th>Subject</th>
<th>Average $ Cost Per Title 2003</th>
<th>Average Cost Per Title 2007</th>
<th>Average 03-07 yearly % increase</th>
<th>Total % Increase 2003-2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anthropology</td>
<td>415</td>
<td>534</td>
<td>6.5</td>
<td>29</td>
</tr>
<tr>
<td>Chemistry</td>
<td>2,635</td>
<td>3,429</td>
<td>7.3</td>
<td>30</td>
</tr>
<tr>
<td>Education</td>
<td>309</td>
<td>451</td>
<td>10.0</td>
<td>46</td>
</tr>
<tr>
<td>Engineering</td>
<td>1,561</td>
<td>2,071</td>
<td>7.5</td>
<td>33</td>
</tr>
<tr>
<td>Philosophy &amp; Religion</td>
<td>146</td>
<td>203</td>
<td>8.5</td>
<td>38</td>
</tr>
<tr>
<td>Political Science</td>
<td>292</td>
<td>446</td>
<td>11.3</td>
<td>53</td>
</tr>
</tbody>
</table>

## STM Journals

<table>
<thead>
<tr>
<th>Subject</th>
<th>Approx # of Titles indexed by ISI</th>
<th>Average Cost Per Title 2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>176</td>
<td>$898</td>
</tr>
<tr>
<td>Astronomy</td>
<td>19</td>
<td>1,426</td>
</tr>
<tr>
<td>Biology</td>
<td>213</td>
<td>1,676</td>
</tr>
<tr>
<td>Botany</td>
<td>53</td>
<td>1,179</td>
</tr>
<tr>
<td>Chemistry</td>
<td>209</td>
<td>3,429</td>
</tr>
<tr>
<td>Engineering</td>
<td>275</td>
<td>2,071</td>
</tr>
<tr>
<td>Food Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gen. Science</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geology</td>
<td>84</td>
<td>1,424</td>
</tr>
<tr>
<td>Health Sci.</td>
<td>1413</td>
<td>1,199</td>
</tr>
<tr>
<td>Math &amp; CS</td>
<td>176</td>
<td>1,313</td>
</tr>
<tr>
<td>Physics</td>
<td>214</td>
<td>2,865</td>
</tr>
<tr>
<td>Technology</td>
<td>162</td>
<td>1,502</td>
</tr>
<tr>
<td>Zoology</td>
<td>123</td>
<td>1,308</td>
</tr>
</tbody>
</table>

3,196 titles  $1,627 (avg. cost)

2007 STM Journal Collection cost = $5.2 million
(2003 = $3.9M)

Barriers to access: collateral damage

Expenditure for Monographs VS. Serials Over Time at Georgia Tech

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Spend</td>
<td>$500,000.00</td>
<td>$1,000,000.00</td>
<td>$1,500,000.00</td>
<td>$2,000,000.00</td>
<td>$2,500,000.00</td>
<td>$3,000,000.00</td>
<td>$3,500,000.00</td>
<td>$4,000,000.00</td>
<td>$4,500,000.00</td>
<td></td>
</tr>
</tbody>
</table>

- Expenditures for Serials
- Expenditures for Monographs
Barriers to access: corporate profit maximizing

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>2005</th>
<th>% change constant</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 months to 31 December</td>
<td>£m</td>
<td>£m</td>
<td></td>
</tr>
<tr>
<td>Revenue</td>
<td>1,521</td>
<td>1,436</td>
<td>+8%</td>
</tr>
<tr>
<td>Adjusted operating profit</td>
<td>465</td>
<td>449</td>
<td>+10%</td>
</tr>
<tr>
<td>Adjusted operating margin</td>
<td>31%</td>
<td>31%</td>
<td></td>
</tr>
</tbody>
</table>

- Underlying: revenue up 5%; adjusted operating profit up 8%
- Strong subscription renewals, growing online sales, successful book publishing programme
- Significant improvement in underlying margin up 0.9% pts; reported margin reflects low (but improving) acquisition margins and lower hedge rates
- Good revenue contribution from MediMedia MAP, margin significantly improved

[http://www.reed_elsevier.com/media/pdf/p/p/169284_1.pdf]
Intersecting economies
Lost control, lost impact

Real data, fake headline. See http://www.earlham.edu/~peters/writing/wsis2.htm
### Lost impact: tolled vs. open access

<table>
<thead>
<tr>
<th>Mean # of citations</th>
<th>Non-OA</th>
<th>OA</th>
<th>OA advantage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dec. 2004</td>
<td>0.7</td>
<td>0.9</td>
<td>29%</td>
</tr>
<tr>
<td>April 2005</td>
<td>1.2</td>
<td>1.5</td>
<td>25%</td>
</tr>
<tr>
<td>Oct. 2005</td>
<td>4.5</td>
<td>6.4</td>
<td>42%</td>
</tr>
</tbody>
</table>

Lost impact: tolled vs. open access

Open Access increases impact

Range = 36%-200%
(Data: Stevan Harnad and co-workers)

[http://www.keyperspectives.co.uk/openaccessarchive/Conference%20presentations/Portugal%20master.pdf]
Lost impact: new insights from text mining

Based on text mining of all MedLine records, MedGene can retrieve, e.g. a list of human genes associated with multiple human diseases in ranking order.
Pause, reflect, discuss

• What is the general state of scholarly communication in your discipline? (How do you know?)
• How important is your control of your work?
• What motivates you to publish?
• How do you gauge the impact of your work?
• Have you published in an OA journal? Deposited work in a disciplinary repository or SMARTech?
How would you characterize the general health of scholarly communication within your discipline?

UC faculty attitudes and behavior

**Tenure and promotion drive my interest in disseminating my work more than any other factor.**

- Strongly agree
- Agree somewhat
- Disagree somewhat
- Strongly disagree
- I don't know

UC faculty attitudes and behavior

The existing tenure and promotion processes at UC...

UC faculty attitudes and behavior

When submitting your work for publication in any venue, how important is:

UC faculty attitudes and behavior

When submitting your work for publication in any venue, how important is:

My ability to retain copyright of my article

Very Important | Somewhat Important | Not Important

UC faculty attitudes and behavior

• 22% have published in open access journal
• 14% have deposited work in disciplinary or institutional repository
• 23% say their open access publishing will increase in next 12 months
Barriers between you and maximum impact
Barriers (and remedies) between you and maximum impact
As the Author of the Work submitted to AER, you are the original owner of the copyright. You hereby grant to AURA the exclusive right to publish the Work for the first time.
You can retain your rights to:
• use your work your own teaching, scholarship, and research
• borrow portions of the work for use in other works
• make derivative works
• alter the work, add to the work, or update the content of the work
• be informed of any uses, reproductions, or distributions of the work
• display the work
• display or orally present the material in any forum
• Allow others at Georgia Tech and elsewhere to
  • use the work in their research and teaching
  • archive and preserve the work
Modify publication agreement

ADDENDUM TO PUBLICATION AGREEMENT

1. THIS ADDENDUM hereby modifies and supplements the attached Publication Agreement concerning the following Article:

   Ramblin' Wrecks and Yellow Jackets
   (manuscript title)

   Sportin' Science
   (journal name)

2. The parties to the Publication Agreement as modified and supplemented by this Addendum are:

   John Ober
   (corresponding author)

   ______________________________
   ______________________________
   ______________________________
   ______________________________

   (Individually or, if one than more author, collectively, Author)

   ______________________________
   Presitigious & Open Minded Pubs, Inc
   (Publisher)

3. This Addendum and the Publication Agreement, taken together, allocate all rights under copyright with respect to all versions of the Article. The parties agree that wherever there is any conflict between this Addendum and the Publication Agreement, the provisions of this Addendum shall control. The Addendum is made a part of the Publication Agreement effective upon receipt of the addendum, and sign and date it.
New models reduce price barriers: “producer pays”

Why does BioMed Central have article-processing charges?
Publishing with open access is not without costs. BioMed Central defrays those costs from article-processing charges, because it does not have subscription charges for its research content, believing instead that immediate, world-wide, barrier-free, open access to the full text of research articles is in the best interests of the scientific community.

What do the article-processing charges pay for?

- immediate world-wide barrier-free open access to the full text
- developing and maintaining electronic tools for peer review and publication
- preparation in various formats for online publication
- securing inclusion in PubMed as soon as possible after publication
- securing full text inclusion in a number of permanent archives such as PubMed Central
- securing inclusion in CrossRef (enabling electronic citation in other journals that are available electronically)

[http://www.biomedcentral.com/info/about/apcfaq]
New business models: “Producer pays”
New models reduce price barriers: Open Access subsidies
New models reduce price barriers: “endowment”

publishing authors will not be required to pay … made possible by the generous support of Hokuriku University and Ishikawa Natural Medicinal Products Research Center (INMPRC).
Public policy

- Accelerate research progress
- Taxpayer access to tax-supported research
- Ensure long-term access/management of results

26 Nobelists letter to Congress:
“..we object to barriers that hinder, delay or block the spread of scientific knowledge supported by federal tax dollars - including our own works. Thanks to the internet, we can transform the speed and ease with which the results of research can be shared and built upon. However, to our great frustration, the results of NIH-supported medical research continue to be largely inaccessible to taxpayers who have already paid for it.”

July 8, 2007
Public policy to reduce access barriers

NIH (proposed policy): require that investigators submit or have submitted for them to PubMed Central an electronic version of their final, peer-reviewed manuscripts upon acceptance for publication to be made publicly available no later than 12 months after the official date of publication: Provided, That the NIH shall implement the public access policy in a manner consistent with copyright law

[http://www.wellcome.ac.uk/doc_WTX031743.html]
Public good vs. private gain

Government mandates that ignore [needed financial support] risk undermining the very fabric of the system of independent, formal peer-reviewed publication.
[the policy] seeks to increase authors’ influence by establishing a collective practice of retaining a right to open access dissemination of certain scholarly works.

faculty shall routinely grant to [the university] a license to place in a non-commercial open-access online repository the faculty member’s scholarly work published in a scholarly journal or conference proceedings. 

[http://osc.universityofcalifornia.edu/openaccesspolicy/]

University of California
Open Access Policy
Draft: For Comment Only
Partnering for change - discuss

**Breakout Sessions**
Faculty Conference on Scholarly Publishing

All "notes" are PDF files.

**Designing Incentives and Support**
What do researchers need to shift their scholarly publishing behavior from high-profit journals to sustainable models? Brainstorm ideas for what support and incentives (monetary, time, staffing, training, centralized expertise, other) campus administration might offer to Berkeley authors and editors to facilitate this change. [notes (session 1)](#) | [notes (session 2)](#)

**Changing Academic Culture**
As scholars ponder moving away from high-profit publishers, concerns arise about advancement promotion. How can academic culture be changed to recognize and value work based on its individual quality and scholarly content rather than relying on the perceived prestige of the publishing venue? [notes (session 1)](#) | [notes (session 2)](#)

**Journal Publishing Options - for the author**
The wide variety of sustainable publishing options available to authors will be reviewed. Participants will hear from colleagues who have successfully published in reasonably priced, high quality journals.

**Journal Publishing Options - for the potential editor**
Hear from colleagues who are starting, have started, or have moved their editorial content from high-profit publisher to a publisher with a more sustainable business model. Meet others interested in this kind of undertaking, and ask questions of low-profit publishers.

**Journal Publishing Options - Tools**
The development of new software products is making the production of new journals easier than ever. Production issues need not overshadow the editorial focus on content. Software products available...
Deepen understanding

Mark J. McCabe
Dr. McCabe joined the School of Economics in 1998 after seven years with the U.S. Justice Department’s Antitrust division. While at Justice, his responsibilities included analysis of anticompetitive practices, mergers, and federal economic regulation. During this time, he conducted research on a variety of topics in industrial organization.

He also served as an adjunct professor at American University, teaching courses in microeconomics and game theory.

Dr. McCabe’s research has appeared in various economics journals, including the American Economic Review and the Rand Journal of Economics, and is frequently cited in the business and science press.

Contact Information
- Office: Room 212D, Habersham Building
- Phone: 404.385.0512
- mark.mccabe@econ.gatech.edu
- Web page

Recent Publications
Center for Experimental Research in Computer Systems (CERCS)

Community home page

In Fall 2001, the Georgia Tech Center for Experimental Research in Computer Systems (CERCS) opened its doors. CERCS brings together researchers from Georgia Tech's College of Computing and School of Electrical and Computer Engineering who share a common focus on the design and evaluation of computer and software systems through experimental methods. CERCS research focuses on complex systems, including their hardware, communications and system-level software, and applications. By emphasizing the experimental method, we promote the creation of knowledge through the design, implementation, and measurement of potentially large-scale prototype systems.

Collections in this community

- CERCS Technical Reports [114]
Publishing services

Why?

Georgia Tech is a worldwide center of excellence for engineering, technology, and scientific innovation. Dissemination of GT innovations must happen globally and promptly for maximum impact in today's world. The Electronic Press @ Georgia Tech, a GT library-managed service, will provide a digital platform to disseminate GT-produced knowledge rapidly to information users at any time, in any Internet-ready location they reside, and will preserve that knowledge digitally for future learners to come. EPAGE is an important program because:

- Georgia Tech's intellectual output should be managed and preserved by Georgia Tech
- Research indicates increased citation impact for research available freely online (see website)

For more information, see http://epage.gatech.edu

Georgia Tech already provides...

SMARTech
an open access repository
http://SMARTech.gatech.edu

Open access journal support for Information Technologies and International Development (ITID)
with Dr. Michael Best, Co-founder and Co-Editor-In-Chief ITID, Sam Nunn School of International Affairs and the College of Computing
http://www.mitpressjournals.org/loi/itid

Support for conferences and their
Copyright services

Scholarly Publication - MIT Libraries
Retaining rights & increasing the impact of research

MIT Amendment Form

(Amendment to Publication Agreement)

MIT copyright amendment form [PDF]
MIT copyright amendment form [MS Word]

Developed at MIT, this amendment is a tool authors can use to retain rights when assigning copyright to a publisher. It will enable authors to continue using their publications in their academic work at MIT, to deposit them into the MIT Libraries’ DSpace repository, and to deposit any NIH-funded manuscripts on the National Library of Medicine’s PubMed Central database.

Alternatively, you may use a tool from ScienceCommons to generate a completed PDF copy of MIT’s standard addendum.

If you have questions about using the amendment, please contact...
Researchers boycott Cell Press

Submitted by cel4145 on October 27, 2003 - 09:44.

It's not the first time that Elsevier has been thought to be unfairly overcharging for online access to journals. The Scientist reports that

Researchers at the University of California, San Francisco (UCSF), have written a letter asking their colleagues worldwide to boycott all journals published by Cell Press—including Cell, Molecular Cell, and Neuron—to protest the high price of electronic access. The Scientist.com.

In the letter, Peter Walter and Keith Yamamoto write that Elsevier, owner of Cell Press, is asking the University of California for an additional $90,000 per year to provide electronic access to the six Cell Press titles—when the university already paid Elsevier $8 million for online access to its other journals in 2002 alone.
Discussion, free-form or….

• What additional information or evidence do you need upon which to base opinion? action?
• What would you be willing to do?
  • Resist submitting to or editing for commercial publishers?
  • Modify copyright terms of a publication agreement?
  • Lobby your society to experiment with open access business models?
• What services could the library provide?