
The University as Publisher

Summary of a Meeting Held at UC Berkeley on November 1, 2007

Edited by Diane Harley

From notes provided by meeting participants, Sarah Earl Novell, and Kathleen Beasley

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Introduction

With the advent of electronic publishing, the scholarly communication landscape at universities has become increasingly diverse. University “publications” not only include those of the university presses and society journals but can also include forms such as preprints, digital library collections, databases, personal webpages, course materials, and lecture webcasts. Multiple stakeholders including university presses, libraries, and central IT departments are challenged by the increasing volume and the rapidity of production of these new forms of publication in an environment of economic uncertainties. As a response to these increasing pressures, as well as the recent publication of important reports and papers on the topic, the Center for Studies in Higher Education (CSHE) convened a meeting of experts titled, ***The University as Publisher***. The event was sponsored as part of the A.W. Mellon Foundation-funded ***Future of Scholarly Communication*** project at CSHE.

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Our goal was to explore among stakeholders—faculty, publishers, CIOs, librarians, and researchers—the implications of the academic community, in some structure, taking over many, if not all, aspects of scholarly publishing. It is a complex issue and one that we at CSHE felt could profit from the attention of persons who have experience with university and pan-university organizations, as well as the nature of and needs for scholarly dissemination.

The day-long program included two public panels composed of ten formal presentations. Comments by a host of informed invitees followed each panel. The program and list of invited participants follows. Two themes were the focus of the public panels: ***Institutional Roles in Evaluation, Quality Assessment, and Selection*** and ***Structuring and Budgeting Models for Publishing within the University Community***. A private roundtable discussion was held among the 21 invitees. The roundtable concentrated on four themes: ***Peer Review in Networked Environments; Variation in Dissemination and Formal Publishing Landscapes; Collaboration and Funding; and Attitudes about Openness and Access***. As a point of departure for the discussions, a number of documents were circulated beforehand.¹ This report provides a summary of remarks from formal presenters, invited commentators, and other attendees.

Our discussions included the importance of distinguishing between informal dissemination and formal publishing and the challenges that each presents to the university community. The harsh economic realities of high-quality formal scholarly publication, not least of which are managing peer review and editorial processes, were emphasized. Understanding disciplinary needs was cited as paramount throughout the discussions; the needs and traditions of scholars in the sciences and humanities, as well as among myriad disciplines, will likely demand different dissemination and publishing models and solutions. An additional theme that emerged was acknowledging the diverse forms electronic dissemination takes in the academy and the need to foster a spectrum of alternatives in publication forms, business models, and the peer review process. Budgetary and academic freedom concerns were explored as well. Regarding the expensive infrastructure required for electronic dissemination and publishing, it was agreed that there is enormous duplication among the university press, IT, and the library. The failure to leverage their respective assets, which are already paid for by universities, will be a stumbling block for coordination and cooperation among these key players in the future.

¹ These readings included the recent Ithaka report, [University Publishing in a Digital Age](#), a short draft white paper developed by CSHE (*The University Does it All*), and additional unpublished papers by Clifford Lynch (*A Matter of Mission: Information Technology and The Future Of Higher Education*), David Schulenberg (*University Research Publishing or Distribution Strategies?*), and Mark Rose (*Distributed Monograph Sponsorship*).

Program and Participants: The University as Publisher

Institutional Roles in Evaluation, Quality Assessment, and Selection

[Diane Harley](#), Senior Researcher, CSHE, UC Berkeley (moderator)

[Laura Brown](#), Senior Advisor, Ithaka; Former President, Oxford University Press, Inc.

[Donald Kennedy](#), President Emeritus, Stanford University; Editor-in-Chief, Science

[Mark J. McCabe](#), Visiting Assistant Professor, Ross School of Business and School of Information, University of Michigan

[Kate Wittenberg](#), Manager of Electronic Publishing, Center for Digital Research and Scholarship, Columbia University

Structuring and Budgeting Models for Publishing within the University Community

[C. Judson King](#), Director, CHSE, UC Berkeley; Emeritus Provost and Senior Vice President, University of California (moderator)

[Ellen Wartella](#), Chair, UC Systemwide Library and Scholarly Information Advisory Committee; Executive Vice Chancellor and Provost, UC Riverside

[James L. Hilton](#), Vice President and Chief Information Officer, University of Virginia

[Mark Rose](#), Professor, English Department, UC Santa Barbara; Director Emeritus, UC Humanities Research Institute

[Donald Kennedy](#), President Emeritus, Stanford University; Editor-in-Chief, Science

Discussants

[Catherine Candee](#), Director, Publishing and Strategic Initiatives, UCOP

[Raym Crow](#), Senior Consultant, Scholarly Publishing & Academic Resources Coalition (SPARC)

[Sarah Earl-Novell](#), Researcher, Center for Studies in Higher Education, UCB

[Nicholas P. Jewell](#), Vice Provost—Academic Personnel, UCOP; Professor of Biostatistics and Statistics, UCB

[Sheila Levine](#), Associate Director for Books, UC Press

[Tom Leonard](#), University Librarian, UCB

[Clifford Lynch](#), Executive Director, Coalition for Networked Information

[James Neal](#), Vice President for Information Services and University Librarian, Columbia University

[Abby Smith](#), Historian and Consulting Analyst

[Shel Waggener](#), Associate Vice Chancellor for Information Technology and Chief Information Officer, UCB

[Keith Yamamoto](#), Executive Vice Dean, School of Medicine, UCSF

Institutional Roles in Evaluation, Quality Assessment, and Selection

Moderated by [Diane Harley](#), *Senior Researcher, CSHE*

This panel, introduced by Diane Harley, focused specifically on the role of institutions in the peer review process. Referencing research conducted by CSHE, the integral role of peer review as the mechanism for validating research quality was highlighted. Harley noted that despite perceived debates about the quality of peer review, it is acknowledged as the “coin of the realm” for most scholars: peer review is the value system supporting assessment of and perceived quality of research, the primary mechanism through which research quality is nurtured, the primary mechanism through which research is made both effective and efficient, and an excellent quality filter for the proliferating mass of scholarly information available on the web.

[Laura Brown](#), *Senior Advisor, Ithaka, and Former President, Oxford University Press*

What would it take to create a real alternative to commercial forces in scholarly publishing? There are many opportunities, but at least two obstacles, that need to be addressed in answering this question. The first obstacle is related to differences in dissemination and publication. Digital dissemination is what might be considered the “low bar” in publishing: output is available to everyone, there is no selection process in place, and the market decides the value and meaning of the materials. At the opposite end of the scale is the “high bar” encompassing print publishing with its embedded process of peer review. Despite the prestige associated with print publishing, not everything disseminated deserves to be published. The publishing process is a signal to the academic community that the content can be trusted and should be preserved in some form. In addition, “high bar” publishing often has a cost-recovery or surplus-generating business model.

Universities have tended to embrace the low bar but not the high bar. This leads to the second obstacle: the reluctance of universities to see publishing as part of their job. The Ithaka study found that, in theory, universities want a fair marketplace for distributing information, but they lack a vision of what it should look like, as well as the collective will to address and harness needed resources. As a result, universities, through the publishing efforts and advocacy of their libraries, tend to support open access in response to the publishing question, leaving their presses to fend for themselves in the increasingly competitive world of commercial scholarly publishing.

The landscape of academic publishing will not change if that is the only response of universities. Commercial publishers are already reaching out to bridge the gaps between their official publications and informal dissemination. [Nature Precedings](#) is one example: a branded site that Nature Publishing Group has created for the dissemination of unvetted scholarship. These smart commercial publishers are moving upstream into the research process itself, creating—under their own brands—informal networks and collaboration spaces for scholars that exist alongside their profitable publishing activities. Conversely, universities are not trying to develop sustainable business models nor are they embracing formal publication as part of their function. Until they do, we are not going to see evolution in the role of the university as publisher.

[Donald Kennedy](#), *President Emeritus, Stanford University, and Editor-in-Chief, Science*

[Science](#) is most concerned with the growth of the open access movement and the question of how to construct a business model that can work within an open access environment. Print can be profitable today, but making electronic dissemination pay is something that no one has really

figured out yet. Consequently, with print, the revenue is greater; with electronic, access is greater.

In relation to an author-pays model, the charge can only be met if a scholar holds an NIH grant which, in effect, means only bio-medicine can afford to publish under the auspices of this model. It is unclear how long open access, such as the [Public Library of Science](#) (PLoS), will thrive once the grants like those from Moore Foundation run out. There are great open access journals in existence so we can only hope that someone finds a way to make them thrive as part of the marketplace.

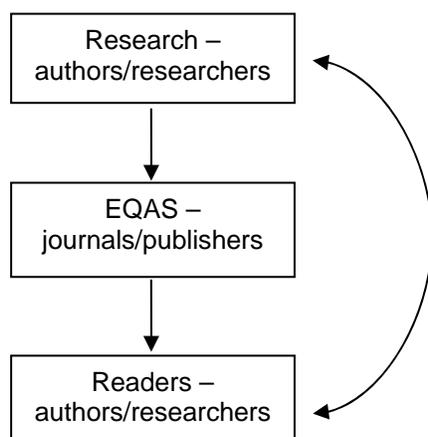
There are several harsh realities about publishing a journal. Firstly, it costs just as much to reject a paper as to accept one, yet a journal receives no fees for the “dead weight” of rejected papers. Second, not everything that is out there, even from a good author, is worth publishing, and not everything that is published is worth citing. This means that journals are not compensated for the papers they reject nor are compensated for papers that are not cited.

Yet citation rates are highly subject to manipulation. How much an article is cited often depends on how many people are active in the field and whether a journal reaches those people. A good idea for everyone, including tenure committees, is to reject the citation index as an evaluative criterion.

With all of the problems and challenges faced by universities becoming publishers, one might wonder what the attraction is. Would the university be willing to undertake an [arXiv](#) equivalent? A university might put together a wonderful, electronically produced publication that would bring interesting attention to the institution and its authors and even economic rewards. But to take on full responsibility for a journal means having to deal with authorship freedom, peer review, quality control, the conflicts surrounding institutional authors, and much more. Could a university put something together and make it an economic winner? The jury is still out on that because there are so many difficult questions that remain unanswered.

[Mark J. McCabe](#), *Visiting Assistant Professor, Ross School of Business and School of Information, University of Michigan*

Mark McCabe presented a simple diagram illustrating the current system:



Authors conduct research at the top of the chain passing their work onto journals to be published where the Evaluation, Quality Assessment and Selection (EQAS) functions are conducted. The output is consumed by readers who are themselves part of the research

community. In relation to some forms of electronic dissemination, however, the author's work can go directly to the reader, circumventing the journals, which dis-intermediates the EQAS function. The question is whether this process will replace the traditional role of journals in the future.

An economist might say why not just have a single research institution doing the EQAS activity? Or have multiple integrated research institutions doing EQAS activities? There are a number of reasons why that may not work: not every institution has a press and not every university hosts journals. As such, EQAS platforms are not always integrated into universities. There are a few notable exceptions; for instance, Law journals where review is conducted in-house by students. This is a case where EQAS is very successful although this is largely dependent on the nature of the institution, the community of scholars, and the discipline.

Technology has affected how the boxes in the diagram behave. Much innovation has taken place; the process of journal submission is more efficient, research has improved, the search function has improved, and there are more readers (and archiving can be outsourced). The search for information goes in both directions. The nature of the research enterprise—and where it ends and where the boundaries of the market begin—are not clear. But it is clear that the EQAS activity is more efficient if there is an editor of a journal orchestrating it.

The major bottleneck of EQAS remains the same, but a researcher no longer has to have EQAS to be successful. In fact, citation rates are higher for online content than for content that is not online. Online access to content, irrespective of whether it appears in a print journal, seems to have an impact on citations. This does differ by discipline, however; in some fields, often when there is money at stake, scholars are not as willing to share their information. Ultimately, a successful role for the university as publisher will be dependent on the discipline and on whether communities of scholars are willing to change.

[Kate Wittenberg](#), *Manager of Electronic Publishing, Center for Digital Research and Scholarship, Columbia University*

Instead of being a bottleneck, we can look at the editorial function—the EQAS as it has been termed—and the university becoming a more active player in that role. Different elements need to be in place to do digital publishing and the university has a number of those elements already in place. At present, we have faculty members who provide peer review, the technological infrastructure (either within or separate from the university library), and libraries which have extraordinary expertise in terms of identifying user needs. The question is how these mesh together to create a publication capacity within the organization.

Where does the role of the editor come into the equation? There is a great need to understand the intellectual behavior and environment within a discipline, to identify the scholars who are doing important work, and to work with those scholars to draw out the material that will then go into the evaluation and assessment process. In terms of institutional repositories, work is not being uploaded and placed in repositories because there is no one in the key role of outreach and acquisition and it is not a priority for most scholars. There needs to be someone who makes a connection between the dissemination system and the faculty who are actually doing the work.

If the university is going to take over the publication process, then there will have to be consideration of the role of the person who does the outreach and the shaping of the editorial content. This person will have to both understand the discipline and also have the publishing skills.

Dialogue and Commentary among Panelists

Laura Brown: In response to Donald Kennedy, Brown noted that new types of content are emerging; the commercial publishers are trying to figure out what this content looks like, as are faculty and universities. This new content could take several forms. In addition to monographs (the long argument) and journal articles (the short argument), there will likely be medium-length arguments (something between an article and a book), papers tied to large datasets, academically vetted wikis, online dynamic textbooks, and so on. We need to foster these alternatives and advance what we already have in the form of pilots for new content and new business models. Such hybrid models could offer free information together with fee-based information. There are a few exciting experiments underway now, funded by the Mellon Foundation, to explore university-based publishing collaborations between presses, academic departments, and libraries. One is the University of Minnesota's interdisciplinary "Publication and Research Collaboratives" initiative cosponsored by its press and its Institute for Advanced Studies; another is University of North Carolina's "The Long Civil Rights Movement," an ambitious digital and print program involving UNC's press, library, law school, and Southern Oral History Program. These will be important pilots to watch, but, in the end, isolated pilots will not accomplish the sort of scale required to produce new market dynamics and real competitive alternatives to commercial scholarly publishers. Something has to be created that has a network effect, something with enough scale to attract applications and content.

Donald Kennedy: In response to Laura Brown, Kennedy liked the idea of the long article. At *Science*, the longer articles get cited more often and receive more attention. Kennedy mentioned the [Annual Reviews](#), which is crystallized around Stanford; it demonstrates a good publishing venue and a good model to follow. It is better to undertake interdisciplinary reviews, and providing UC faculty the opportunity to publish long articles would be a good place to start.

Kate Wittenberg: We need to think more creatively about peer review and selection in general. This is not an environment where there are two poles with no review vs. a traditional process of peer review. In fact, online resources going forward are going to be an interesting and innovative combination of different forms of scholarly discourse. We may see the emergence of a spectrum of peer review from peer review "light" to collaboratively reviewed materials, to traditional top-down peer review. If we look at scholarly resources as encompassing all of these different forms, there is a role the university may be able to play. So we need to envisage peer review on a spectrum while understanding the need to make it appropriate for the publishing process and valuable to users.

Mark McCabe: In response to the above comments, McCabe reiterated disciplinary differences in publication practices. For example, in computer fields, conferences and their proceedings are the primary publication outlet. In contrast, economists have working papers and the process has been accelerated through technology (e.g., [ProQuest](#)). Chemists may not want to put their work out there because of commercial potential, while physicists want to share their information for a variety of reasons. Historians may not want to get their work out there quickly because they are worried about someone stealing their ideas. Faculty who have tenure may be less constrained by a specific publishing venue and just want to get their work out. The integration between research and EQAS has to be discipline-specific.

Open Discussion

Catherine Candee, *Director, Publishing Services, California Digital Library*: Although there has been discussion of disciplinary issues, no one has as yet articulated what the problem is. Are we all describing the problem in the same way? In the sciences, there is in place a commercial publishing apparatus that the faculty think works well, but the library does not. In the humanities, many scholars cannot find a press to publish their first monograph. In research at different campuses, there is ample evidence that scholars are using technology to disseminate their findings in interesting ways and there are many alternative publications, particularly in niche and multi-disciplinary areas. Some are doing a good job of providing mechanisms and processes to capture new ways of publication. But what is interesting is that they are not rewarded for doing so, and, in some ways, are punished. There is no system in place so that the work that is done is reviewed and credited to the scholar, leading to promotions. Without such a system, individual faculty cannot be expected to take academic risks by putting their work on the Web. If faculty are told they have to publish in *Science* for scholarship to count, instead of in some oddball journal, they will not take the risk. We need the peer review system to change first.

Nick Jewell, *Vice Provost-Academic Personnel, University of California Office of the President*: What has been reinforced by the panelists is that nothing is changing despite terrific ideas and opportunities. In both the tenure process and grant-making, the rules are clear in most of the sciences. Publication in *Science* is the golden key. You can show individual faculty what they can do with technology, but if you do not change the rules of how they get to the next level, then they will not change their behavior. Open access may nibble at the margins, but it does not provide the golden key.

The function that peer review plays is fundamental; it controls what you have to read. Today, everything can be published in the vast information terrain. We need to think of other ways in which information can be distilled. Societies have not stepped up to the challenge of helping people determine what the ten things are that they need to read each month. Instead, important working papers are scattered over many sites, and the journals have far more content than someone in a specific discipline may want or need. Societies and universities should be in the business of sorting out content so it is tailored to what the reader wants. Journal subscription as it stands is an inefficient way of accessing information as you may only want two out of 20 papers. Electronic searching allows you to customize that information. We should not just think about electronic outlets as providing print in a digital form. In the future, there are likely to be ways of interacting with content that is inconceivable with today's print or digital publications.

Keith Yamamoto, *Executive Vice Dean, School of Medicine, UCSF*: The question is why universities would want to get into the business of publishing. No convincing value proposition for the university to be involved as publishers has been presented. For biomedical science, publishing work is imperative; failure to publish is almost like not having done the experiment at all. The way that knowledge builds in biomedical fields is incremental with very small steps in knowledge being used to build the next experiment. Publishing is fundamental to knowledge production. The capacity for rapid and wide dissemination is paramount to biomedical scientists. But what are the problems that a university as publisher would solve? There are complaints about the cost of paying commercial publishers, but if the university adopted the role of publishers, costs would remain high (although not as high as Elsevier).

A second issue is the importance of the academic ideal in publication. Since peer review is essential, can we have a blend of free peer review? If universities are inserting themselves into publishing, it should be remembered that they have a mission of open inquiry. If work is going to be assessed, there needs to be expertise in the areas of that scholarship. We have slipped

away from that as submissions have increased. Increasingly, non-practicing scientists are making assessments about whether work should even be reviewed. There are other ways to ensure the quality of review besides the university becoming the publisher, but it can be looked at as one of the rationales.

James Neal, *Vice President for Information Services and University Librarian, Columbia University*: If peer review is about selection (as Laura Brown suggested) then selection is part of the packaging of a journal. A reader, however, is more interested in the research work as an object of study, rather than as part of the journal's packaging. Are there alternative forms of assessment that are peer review "light?" For instance, career reviews. Can we conceive of a situation where the work is decoupled from the package without sacrificing the selection process? Should we be looking at new ways to evaluate work? Are there new ways to evaluate quality, cost of use, availability, and source?

Structuring and Budgeting Models for Publishing within the University Community

Moderated by [C. Judson King](#), *Director, CHSE*

Jud King introduced this panel and, referencing a CSHE white paper circulated before the meeting, noted the complexity of issues that would arise if an effort is made to subsume the scholarly publishing function within the university world. These include the financial burdens and complexities of becoming a major publisher, the loss of prestige for university publications that published primarily their own authors, as well as constraints due to anti-trust laws and any other legal issues.

[Ellen Wartella](#), *Chair, UC Systemwide Library and Scholarly Information Advisory Committee (SLASIAC)*

The UC Systemwide Library and Scholarly Information Advisory Committee (SLASIAC) has been looking at ways in which the university can better support its faculty by providing the infrastructure necessary for faculty publishing. The more traditional infrastructure includes telephones, libraries, and access to computer systems. The university is already providing infrastructure for new forms of communication, such as multimedia and audiovisual. But it is becoming apparent that there are other types of infrastructure requirements for a scholar to do their work and these vary from discipline to discipline.

When we think about universities as publishers, there may be “sweet spots” where universities can be most beneficial in supporting faculty, for example, with alternative forms of publication. There may be concern voiced by faculty, however, in relation to whether the university is encroaching on academic freedom. As such, there may have to be conversations about the distinction between faculty members as entrepreneurs and faculty members as employees.

A second way in which SLASIAC has been thinking about how universities support the scholarly conversation is the obligation, as a public university, to disseminate information to the wider public and put research skills to work for the betterment of society. Again, there is infrastructure in place already—publications, libraries, UC TV, and the Web. The university has made a huge investment in making materials available on the Web. While we tend not to think about the whole range of structures that have been put in place to disseminate information to the wider public, it is important as we make the case for public support to demonstrate our commitment to sharing information.

[James L. Hilton](#), *Vice President and Chief Information Officer, University of Virginia*

Several points stand out as we look at publishing problems today. First, universities as institutions and members of the community are under enormous pressure to embrace a pure property view of information. People want the transfer of ideas, but they want to get a deal and not pay full price. This is inherent in a culture that says information and music should be free on the Internet. How universities are going to respond to this is important.

Second, publication is at the heart of scholarship. If scholarship is not disseminated and published—if you do not share ideas and your work—then there is nothing there. There is ambivalence on the part of the university towards publishing; university presses and libraries are cautious and timid. If we take the pure property view of the world of scholarship, it is publish or perish. Third, from an economic perspective, if you look at the total cost of ownership of scholarship and the total investment, then the problem we are talking about is a tiny sliver that

should not be allowed to wag the dog. Subsidies to university presses and subscriptions to journals constitute a small margin of scholarship as a whole.

Fourth, the noticeable player missing from this conversation (and the Ithaka paper) is central IT. The networks, the storage, the infrastructure that exists is already there in IT. The library, the university press, and IT all face the same existential fate if they are not aligned with the core mission of the university. The press is already code blue and flat-lining. The libraries are in the third trimester of pregnancy and talking about whether to get a home pregnancy test. And IT has already been written off and now reports to the chief financial officer in most places. Cost efficiency and support systems are on the way out the door. But universities have to start seeing these things as an investment in the academic mission. IT is now about cost efficiency but it *should* be about supporting research and scholarship and the administrative support that it currently does should be outsourced.

The final point is that there is an enormous duplication among the university press, IT, and the library. The press' "sweet spot" is review and selection; the library's is search, archive, and dissemination; and the "sweet spot" of IT is providing a support infrastructure. There is a failure to leverage these assets already paid for by the university.

[Mark Rose](#), *Professor of English, UC Santa Barbara and Director Emeritus, UC Humanities Research Institute*

In the humanities, the crucial problem is monograph and book publication. Getting a book published that is not about a commercially viable subject is very difficult, and this issue is seriously impacting work in the humanities.

One interesting development in the humanities is the appearance of research units such as campus humanities centers. Centers have also developed from the activities of individual departments—the Center for Early Modern Studies in the UCSB English Department is an example—and various multi-campus research groups have developed to bring scholars together from across campuses.

I think that there is an opportunity to build on these distributed research centers to create a new publishing model for specialized monographs based on print-on-demand technology and short-run technology. Faculty associated with such a research unit could develop a specialized monograph series with the quality secured by an editorial board and peer evaluation accomplished in much the same fashion as it is done at a university press. Publications would bear the joint imprint of the research center and a university press and both would accrue prestige. The monographs could be distributed by digital subscription with print-on-demand. Individual scholars could access a copy through their libraries, download a pdf, or buy print-on-demand versions.

Such a scheme would help to make it possible again to publish the kind of specialized monographs that today are being excluded as not viable commercially. Such a scheme would also help to create new partnerships between presses and academic research organizations and to reintegrate the presses with their primary academic constituents.

[Donald Kennedy](#), *President Emeritus, Stanford University, and Editor-in-Chief, Science*

There is a long trajectory of different steps toward publication and a potential role for the university. A scholar has an idea and/or does an experiment. He/she may have a website on which they post that idea/experiment which is not going to be an inhibition to subsequent

publication in a journal. Or a scholar may submit a paper to a publicly accessible server, such as the Los Alamos National Library (aka the arXiv, now at Cornell), which has become an important source for physics papers and immediate access to current research. In some disciplines, such as economics, a working paper or preprint may be available. This early stage of dissemination adds value as it provides the university with an opportunity to become an aggregator of that research. Libraries and presses could also be aggregators and act as a proxy (e.g., arXiv preprint server). Top papers could be highlighted so the aggregation could work in an effective way. Is this competition to *Science* or *Nature*? No, they are happy to publish papers that have appeared on a preprint server. Journals in the past worried about this as competition, but gave up the idea of embargoing papers very quickly and today the whole system is working in a more cooperative mode.

One possibility is for universities to take on the role of aggregating working papers that are shared by scholars. Another is for the university to create a unique publication sector for cross-disciplinary work and monographs or long arguments. One other form of publication that *Science* has experimented successfully with is creating an online knowledge environment to allow faculty to connect with others who have the same interests; for example the [Signal Transduction Knowledge Environment](#) (STKE).

Dialogue and Commentary among Panelists

Ellen Wartella: There are several reasons why universities have been timid or ambivalent about publishing. One is money, which may sound like too easy of an answer, but it is a huge investment. Another issue is the role of the university as an institution in relation to the intellectual property of the faculty. The university can make money from the intellectual work of faculty, for instance, when it participates in licensing of IP. If the university becomes a determining factor in what gets published, faculty will question what the administration is trying to do. It is a new terrain and the university needs to find a new way to navigate it.

James Hilton: The academy already controls the publication process through peer review. Journals and press editors may organize it, but peer review belongs to the academy. But why are we satisfied with the current organization? There is an opportunity that is being driven by technology. There is skepticism regarding a university as publisher rather than *the* university as publisher.

Mark McCabe: Echoing the concern about the pure property view of scholarship, this strikes very much home as part of the problem. As scholars, we are generating something that can be commercialized and marketed. We have seen institutions create copyright offices, not to assist faculty with the process, but to generate a revenue stream back to the institution. The problem with the pure-property view, as opposed to the public-good view of scholarship, is that it goes very deep in the culture. Individual faculty members view themselves as authors, in the sense that Herman Wouk is an author. They want to propertize and exploit their work, even though scholarly books will produce almost nothing in royalties. This is a deep problem that we do not know how to deal with.

Open Discussion

Shel Waggener, Associate Vice Chancellor for Information Technology and Chief Information Officer, UC Berkeley: For investment in infrastructure to be useful to faculty, there has to be a value added that reduces the technology adoption tax; faculty need to be able to use the technology without having to invest their own intellectual capital in determining how to use it. So there needs to be more technology infrastructure, but we have to be sure it is not substandard

to what the faculty needs. We do not have a good institutional structure for developing this infrastructure because of divisions between IT and libraries that get in the way of building what faculties need.

Today, much of the technology infrastructure comes in response to NIH and other grant-driven research. Historically, IT has been paid for by grants and technical assistance is given to those grant-rich disciplines. There are several non-traditional technology disciplines, however, who now use technology and this is problematic when it comes to multi-disciplinary boundaries and disciplines that are not grant-oriented.

The “cultural” transition speed versus the “technology” transition speed is misaligned. The technology transition is accelerating but we have not figured out a way to create incentive systems that encourage faculty adoption of technology. We can put something in place and force everyone to use it but technology is moving faster than the adoption curve. It seems to be all or nothing with chaos in the middle. We are slipping and falling behind because investments are in silos. The percentage of total expenditure for campus IT continues to increase but the effectiveness has not mirrored this increase. If the press, IT, and the library cannot coordinate, publishing will be more and more ineffective.

Keith Yamamoto: While the university has an obligation to create infrastructure to support faculty dissemination of scholarship, we have to ask what the university would add by becoming publishers. We live in an outsourced world where everyone is scrambling to create innovative products that will distinguish them and utilize opportunities presented by high technology and the Internet. We will keep seeing new things rolling out.

Think of the analogy with university bio-med labs making enzymes and selling them. Outside companies got very good at it and soon enzymes were very cheap resulting in universities closing their production facilities. What is it about publication that is wrong that universities could improve by jumping in and doing it themselves? What makes us think we have the obligation to create this publishing infrastructure rather than paying for it through outsourcing? Taking on publishing involves answering many tough questions and what the model would look like is not straightforward.

Catherine Candee: We do not want to get stuck on the discussion of why a university would want to get into publishing; it does not make sense necessarily if it is just more of the same (especially since it costs \$150,000 and takes two years to start a journal.) But it is useful to talk about the mission to support education and research. Publication is just one piece of that. Content is created and shared, which supports broader society. Universities can give back what they are supposed to give back. If we take that approach, then we have to ask ourselves if current publishing methods are serving the public. And the answer is “no;” they are falling behind what is needed. Most of the world does not have access to the research and cannot exploit the technology that is available so there is a problem. The question, then, is: what does it take to support education and teaching, and what role does the university have in this? This is a broader discussion than should the university be a publisher.

James Hilton: There is the question of control. Why would universities want to do the publishing themselves? Given digital technology, and the cheap costs of disseminating, it is a question of efficiency. We have a mix of motives between two organizations. If we control too much (copyright), incremental progress is lost, which is fundamental since scholarship is built on incremental progress. We live in a situation where, for the most part, universities abdicate control and there is a mix of motives between the two organizations. We do not want to

warehouse information; we want it to be remixed, repurposed, and reused. But when universities abdicate control, the information is held hostage to copyright.

Abby Smith: Historian and Consulting Analyst: We need to make a distinction between a university and the academy at large. A single university cannot address this problem unless the Academy in general owns the problem. Because universities are set up more or less competitively within the larger Academy, the task is to get the publishing challenge described as a common challenge and then move on with a common strategy.

Jim Pitman: Departments of Statistics and Mathematics, UC Berkeley, and Past President of the Institute of Mathematical Statistics (IMS)

One large misconception is that the only opportunity for open access publishing is the author-pays model. This is false: there are examples of high quality open access electronic journals supported entirely by the goodwill of the scholarly communities they serve, for instance the [Electronic Journal of Probability](#) and the [Electronic Journal of Combinatorics](#). Universities and scholarly societies should ally to encourage the creation and long term survival of such journals as alternatives to the dominant commercial paradigm. The IMS publishes 11 scientific journals. Some are traditional subscription journals, but recently IMS has been starting open-access journals at the rate of two or three a year. It should not cost \$150,000 and take two years if you have the infrastructure in place. A new journal can be started for a few thousand dollars inside of six months. You need a community of scholars ready to contribute content and a respected association for quality control and peer review. Open source software systems for e-publishing such as Open Journal Systems and DSpace both provide a sophisticated publishing platform. A small fraction of what universities currently spend on journal subscriptions would be well spent to build and maintain such open access journal platforms. Peer review by the university is not needed. Universities should rather invite societies and associations to manage the peer review process, and just provide the platform for publishing. U. C. has said “no” in the past to cooperation with third parties to create journals, but it is time to reconsider such collaborations.

Summary of Roundtable Discussion

The afternoon roundtable was devoted to discussing several themes that emerged in the public session:

- **Peer Review in Networked Environments**
- **Variation in Dissemination and Formal Publishing Landscapes**
- **Collaboration and Funding: Leveraging University Resources and Infrastructure**
- **Attitudes about Openness and Access**

Peer Review in Networked Environments

Several participants indicated that peer review has become less stringent as the volume of papers has increased. Some papers do not even make it to the peer review stage because of early triage that rejects them. Nicholas Jewell said the university does not do internal peer review due to a conflict of interests. In his field of biostatistics, there is a much lighter review; what would have taken three months to read in the past, reviewers now skim in a day. He recommended that technology be used to find new ways to accomplish peer review that maintains standards and lowers costs, and he cited the *Nature* peer review experiment as an example of such an effort. Shel Waggener added that technology could enable parallel reviews and collaborative reviews.

Judson King spoke about the potential real and perceived conflict that universities would face if they played a role in rejecting a paper, relating to the fact that publication is a key part of the tenure process. Clifford Lynch agreed that universities should not get involved in the role of peer review for their own faculty members. On the other hand, Laura Brown noted that university presses make publication decisions regularly, including the work of their own faculty, and no one raises the issue of conflict of interest because they trust the integrity of the peer review process at university presses.

Abby Smith pointed out that, when it comes to the academy, peer review serves two distinct but not inseparable purposes. One is to determine entrance to the guild—who should be granted tenure. The other is to vet information for its core value. These are not inseparable but conflated and motivation behind each model is different. When it comes to economic models, the motivation behind each needs to be clear. Additionally, there is a sense that scholars feel the publishing process is outside of their control. Whether the academy should reassert control over publishing needs to be discussed.

In response to a comment that some feel that the peer review process is broken, Diane Harley said it is important to identify the components of the peer review system that are perceived to be breaking down. Are there too many reviewers in general, or too many who do not know the subject matter they are reviewing, or is there too much power in the hands of certain university presses or journals regarding what gets published? She also noted that *Nature*'s experiment in publishing papers and relying on post-publication peer review was abandoned because of lack of interest in and participation from scholars.

Donald Kennedy offered that faculty often think about their grant potential when they hear peer review. In the past, peer review was about placing work in the hands of geniuses and older established specialists, the most remarkable people in a discipline. Mistrust grew when work was placed, not in the hands of seniors in the field, but in the hands of peers. The sense that "it is not as good as it used to be" has to do with the change in the process of grant reviews.

Ellen Wartella raised the issue of politicians attacking peer review for approving studies that they see as “silly.” The academy is sometimes viewed as self-serving, helping its friends get grants. This misunderstanding about the peer review process would be transferred to the university if it brought the function back to campus. It could be a very politically difficult move to make. Abby Smith noted the irony of Congress being concerned about transparency and ethics and added that there needs to be a forceful argument that can be put forth about why the system works the way it does.

Keith Yamamoto agreed that there are intrinsic conflicts that will not go away because peer review is seen as not only helping friends but also trashing the competition. He also pointed out that peer review has an inherently flattening effect on innovation and transformative thinking. Reviewers typically believe whatever they are working on is important and other concepts are not as worthwhile. When you have the best people in a system deciding what can be published, and they created the system, they are not as likely to want a new idea to go forward. This has to be recognized as a problem and a culture needs to be developed that looks for ideas that are outside the norm. The successful commercial journal may never do that, so perhaps this is where the academy could step in. The academy has always been about the people who do not accept “the idea of the day.” Although the academy values peer review and sees it as essential, there are components that need to be addressed.

Variation in Dissemination and Formal Publishing Landscapes

Clifford Lynch stressed that the gap between dissemination and publishing needs to be explored. It is clear that universities are doing much more *dissemination* of information than ever before because the digital world lends itself to dissemination. There is a huge flow of faculty work in the form of preprints and much more that is not considered scholarly work in the form of captured lectures and other materials. We tend to talk about publishing in a traditional way with rigorous peer review. But it is probably useful to reconsider and be honest about what the publishing process is and is not doing and then consider what should be done about dissemination.

It was generally agreed that electronic communication has lowered the barrier of entry to dissemination. Whether that is disrupting the integrity or value of the information because of the sheer weight of everything that is disseminated is a question. As noted by Shel Waggener, in today’s world it is not possible to slow down the dissemination process. Redefining what publishing is should not be left to the private marketplace because their incentive is financial. We need to redefine publishing as something broader than peer review and dissemination and then consider how we keep the integrity high with the volume of data that is being produced.

Collaboration and Funding: Leveraging University Resources and Infrastructure

There was agreement that it is important to leverage assets within and across institutions. Laura Brown commented that not only do different interests on campus need to come together to collaborate, but there also needs to be collaboration across campuses. Is there an infrastructure for that type of collaboration and sharing, or does it have to be grown organically with participants building whatever they need as they collaborate? There is a question of efficiency, but also a question of how people collaborate. The presses may see things one way and the libraries another.

In James Hilton’s view, even with both the library and IT reporting to one person, it was not possible to get the library to stop building redundant infrastructure and for the IT department to quit doing the middleware development that the library should be doing. Part of the reason is the pressure for both institutions to figure out what the next wave is and be there to hit the sweet

spot. But IT needs to be in the mix because they are experienced with the community sourcing movement and how to make tools work collectively. One vision is to have infrastructure that allows a faculty member who has completed his research to hit a distribution button that will feed it to an institutional repository, send it to a public website, or offer it to a more traditional publication that has peer review.

Kate Wittenberg suggested that one of the barriers to collaboration is what she called "branding." Libraries want to put their brand on services so that faculty recognize they are delivering value; similarly, IT wants everyone to know what they are producing; and the press wants the university to know that it is only printing the very best work. Collaboration interferes with branding.

James Hilton added that, at most places, the library and the university press have agreed to cooperate, but that cooperation is not the same as collaboration. Collaboration means to recognize and embrace a common shared purpose, and then have that purpose drive everything that is done. Chief budget officers should be setting up incentives to force collaboration. When they get a request for more storage capacity from the library, they should be asking why the library is not leveraging the IT capacity.

In response, Shel Waggener said IT, libraries, and the presses are not inherently against collaboration but that nobody wants to put their success in someone else's hands; there is no willingness to take on a common fate. In the past, IT had to own all of the technology because of the complexity of making it all work together. But increasingly there is more flexibility and solutions can be outsourced. We do not have enough flexibility yet for the library, IT, and the press to work well together but software is moving in that direction. Additionally, he noted that collaboration is not free; there is a real cost burden to working together doing joint planning and strategic visioning.

According to Raym Crow, there are not currently that many library/press collaborations. Most of them are *ad hoc* or opportunistic rather than built on the strategic sharing of resources. Therefore there is no real investment and no real risk. To have resource sharing, they would need to have a business structure and financial structure, with real goals and objectives that are measurable and quantifiable, built around the collaboration. Most presses are not capitalized to take risk. Collaborations might allow the presses to experiment without torpedoing their existing margins.

Judson King said each of the three (IT, libraries, and presses) are usually organizationally separate with their own individual incentives and funding constraints. Presses are borderline viable, IT is frequently not fully budgeted but instead must often raise a substantial part of its budget through recharges, and libraries face purchasing power problems. So, each is in a tight financial situation.

Catherine Candee raised the issue of funding coming from industry and playing a role in the calculation about what should be published. She said that it is troubling in terms of what it means for the academic integrity of an institution. Judson King pointed out that there is a well entrenched system of academic advancement and review in place independent of financial support. The problems facing the humanities, an area where there is not enough money to support interdisciplinary efforts and there are far fewer funding opportunities, was mentioned. There is less and less government funding for general education and more industry funding for science, a situation Candee felt should be addressed. James Hilton stressed that part of the resources tilt is appropriate because it costs more to do scientific research than in the humanities. The question is what the delta is between what is available and what is needed.

Attitudes about Openness and Access

The question was raised concerning how or if the next generation's use of technology, including their potentially novel learning and reading styles, will be important to considering the future of university publishing. Some noted that the younger generation communicates more informally and that emerging social networking environments may well change the way younger scholars will work and use information. Contrary to the view that attrition will be the primary force of change in scholarly communication practices, Diane Harley noted that, in their research on scholarly communication, graduate students and young scholars may exhibit a sort of *uber* professionalism in some fields, with an early focus on publishing in the "right" peer-reviewed outlets. They are frequently aware of the competitive pressures in the academic world, worry about protecting their ideas from theft, and usually model their behavior after their mentors. She also noted that there are significant traditional differences from discipline to discipline in terms of how comfortable scholars are in sharing their work at its early stages in writing. In physics, astrophysics, and economics for example, sharing of well-developed preprints freely is the norm. In biology and history, the opposite is true.

Donald Kennedy agreed that there will be a multi-spatial connectivity for the new generation and *Science* has recognized that younger readers access the material online while older readers may wait for the print copy. But he also noted that younger scholars will continue to be quite conservative and guided by their mentors in the work world.

Shel Waggener concurred on some of these points. Today's generation can follow a conservative model in the work world but expect to have another digital persona for other purposes. They expect a level of openness and access that the older generation would have been shocked to assume would be available and want to move through different environments easily without worrying about privacy. There are other parts of the picture besides age demographics according to Cliff Lynch. For example, the high achievers in any field may be more interested in finishing and disseminating their research in the field rather than worrying about formal publishing and tenure.