

Minutes*

**Senate Research Committee
Monday, September 23, 2013
2:00 - 4:00
238A Morrill Hall**

Present: Maria Gini (chair), J. Michael Autry, Jayne Fulkerson, Daniel Habchi, Philip Herold, Brian Johnston, Seung-Ho Joo, Michael Kyba, Frances Lawrenz, Hinh Ly, Suzanne Paulson, Scott McIvor, James Orf, Kathleen Thomas, Thomas Vaughan, Kyla Wahlstrom, Joel Waldfogel

Absent: Arlene Carney, Emma Contreras, Goran Hellekant, Brian Herman, Tucker LeBien, Amanda Maxwell, Emily Saunoi-Sandgren, Michael Schmitt, LaDora Thompson, Lynn Zentner

Guests: Associate CIO Craig Bantz (Office of Information Technology), Dean Wendy Lougee (University Librarian); Jay Schrankler (Director, Office for Technology Commercialization)

Other: none

[In these minutes: (1) information systems capacity for research; (2) change to Board of Regents policy *Commercialization of Intellectual Property Rights* (student intellectual property); (3) change in Board of Regents Policy *Openness in Research*]

1. Information Systems Capacity for Research

Professor Gini convened the meeting at 2:00, welcomed the guests, Mr. Bantz and Dean Lougee, and said that the first agenda item is an open discussion about the capacity of the University's information systems to support research.

Mr. Bantz said that he is also director of technology innovation for the College of Biological Sciences, in addition to being Associate CIO, and he's passionate about using technology to advance the missions of the University. He is committed to being supportive of what faculty do. Traditionally, the Office of Information Technology (OIT) provides infrastructure: networks (which are being upgraded to 100 GB bandwidth), storage (which is unlimited except for perhaps 1% of the faculty who have huge data storage needs), and server hosting. They also partner with local IT units to provide services in the colleges.

Dean Lougee provided a handout with information about information systems in the libraries. In supporting the full lifecycle of research & scholarship, strategies include investment in content and collections, systems and tools, education & consulting services, [and] shared services @ scale." With respect to shared services, they increasingly are working with other institutions (e.g., the CIC) to provide

* These minutes reflect discussion and debate at a meeting of a committee of the University of Minnesota Senate; none of the comments, conclusions, or actions reported in these minutes represents the views of, nor are they binding on, the Senate, the Administration, or the Board of Regents.

resources. One example is the HathiTrust digital library of over 10 million volumes that also provides significant data-mining opportunities.

Dean Lougee used a graphic of the stages of the research process to describe the types of services the Libraries offer: the discovery phase (collections, discovery systems, and Experts@MN), the creation and use of content/data phase (personal information management tools, education/consulting services, copyright services), the manage/share phase (repositories, publishing, metadata/identifiers, and discovery services), and long-term preservation (digital preservation systems, consultation services). These services provide support at all stages. Notably, collection acquisitions now include an array of digital content including images, streaming media, and data sets (e.g., spatial data needed for research).

Dean Lougee reported that there was a February directive from the White House Office of Science and Technology Policy (OSTP) that requires federal agencies with more than \$100 million in R&D expenditures to "develop plans to make the published results of federally funded research freely available to the public within one year of publication" and "require researchers to better account for and manage the digital data resulting from federally funded research." These draft plans were to be submitted in August to OSTP, but have not yet been finalized and released. The Libraries are focusing on elements of the research data lifecycle that respond to the mandate, including consulting services around data management plans, guidance on describing and archiving data as well as options to distribute and make data discoverable. While the Libraries have some small pilot work that includes storage of data, generally storage is not the focus for Libraries support.

Dean Lougee reported that about 98% of the libraries' budget is O&M funds. Its attribution methodology for the cost pool is based on a weighted headcount for faculty and students. A very small amount of the Libraries' budget is derived from grants and fee-based services (e.g., copy services, corporate services). Other than these small fee-based services, all of the libraries' services to the campus user community that she has mentioned are provided at no cost to the user.

The larger question that the Committee talked about last year is what kind of support can the University be expected to provide for research, Professor Gini said, and whether what is provided is adequate. This discussion is about the "softer" parts, not equipment and the like, and is just a start. There are different funding models available, some of which can be tied to needs (e.g., University funding, grant funding). Today's discussion is about the way the University invests its resources; the Committee will later develop more specific questions and recommendations.

Professor Orf asked about preservation of data collected during research (rather than a summary of the data); it is not clear what the federal directive means. Dean Lougee said that each agency is to come up with its own policies—but they have not yet been released; there may be different criteria based on discipline or type of data. The focus is on ensuring that the project has a plan for managing its data and, where appropriate, made available to others. In that context, derivative data can be equally useful. Professor Orf mentioned scans with digital values; it may be that in the future they will want additional information from the scans rather than just the digital values. Ms. Lougee said that a data management plan would need to address the long-term value of the scans. NIH funds repositories to hold publications and some data but it is not clear that the federal government will support future repositories in line with the directive. Publishers have advanced a proposal to manage data associated with publications, but that may not be in everyone's best interest.

Professor Ly related conversations he had been involved in about making publications openly available and the impact on professional societies whose revenues come primarily from their publications. Ms. Lougee said it is likely that a 6-12-month embargo will be adopted by federal agencies, and open access is not likely to threaten the vast majority of publications but there is a question about societies, their publications, and the value of membership. The main reason many people join is for the discount on their publications, Professor Ly said. Some societies offer additional benefits, Ms. Lougee said, and as a research library, they are not going to cancel subscriptions to publications when the current articles have been embargoed for a year.

In response to a question from Professor Kyba, Dean Lougee and Associate Vice President Lawrenz explained how the libraries fit into the F&A rate negotiated with the federal government. The Libraries do not receive any indirect costs accrued by campus grants. All indirect cost revenue is provided to the colleges. The F&A rate does include libraries as one component, but the amount included does not translate to the actual costs of libraries, Dean Lougee observed. Dr. Lawrenz pointed out that the University has documented the fact that research costs about 10 cents more (per dollar of research) than what the University receives from the negotiated rate, so the University is subsidizing research. She said she did not know if the portion of the rate attributed to the libraries is different at peer institutions.

Professor Thomas said that her research involves a lot of videotaping and MRIs of children and she needs access to large quantities of data all at once. She said she was unaware of the storage facilities that Mr. Bantz mentioned and suggested that there may be a lack of communication about available resources and how to get access to them. Some resources may be directed to members of specific colleges (e.g., the Academic Health Center), and researchers from other colleges are not eligible to use them. There are times when it is difficult to find secure storage (e.g., for data including private information, such as videos that contain faces and names). Many of the existing storage options cannot protect PHI. She can keep the data while doing the grant work, but where can she store it so she can get at it and use it later, after the grant funding has ended?

Mr. Bantz said there is a set of service offered by OIT and specialty services are offered by MSI and local IT units, but there is a gray space that is not covered. He said he believes that OIT needs to define where it stands and who to contact; he agreed that there is a challenge. Professor Thomas's question also relates to what to do with stored data at the end of the grant, Ms. Lougee said. Purdue has developed a coordinated infrastructure that brings together multiple service providers. When a faculty member prepares a grant, data management plan consulting is provided by the Library. When they receive the award, default storage is provided by campus IT, with tiered pricing for additional storage. If the data management plan calls for making the data available, the Library helps with identifiers and publishing the data; similarly if the data are to be preserved, the campus provides a guarantee of 10 years of archival storage. The challenge they have addressed is coalescing the resources of the library, IT, and the Vice President for Research Office and integrating different funding models in a coordinated service model.

Professor Waldfogel observed that many social sciences use data from the web and have questions about copyright law. Can the libraries help with that? Dean Lougee said they can offer advice, provided by Copyright Program Librarian Nancy Sims, but she observed that data cannot be copyrighted.

Professor Gini asked what happens when she has data that are to be preserved forever. Most NSF grants provide that data need to be retained for three years after the grant. Who pays to store data

forever? Can that be done now? Ms. Lougee said the Libraries do not provide storage except in a very small number of cases within the Digital Conservancy. Mr. Bantz said that "forever" is beyond what OIT tackles at present and said there is an overlap in this question with the libraries. Ms. Lougee said digital archiving goes beyond storage and deals with sustaining the integrity of data and migration through new systems over time; few units currently do that, although some units are engaged in grant funded projects that have data archiving requirements (e.g., Minnesota Population Center). There needs to be communication about this and a funding model to support permanent storage. Storage is cheap; the question is access, Professor Gini said.

Professor Thomas noted that the questions today have been about grants but there is much research at the University that does not have grant or external funding but that could be valuable over the long term. There need to be mechanisms to preserve that research as well, even if not associated with a grant.

Professor Orf said he works with genetic material; in the future, the full genome may be documented; in the meantime, they have need to preserve the physical specimen data. There are some repositories for seed and other physical specimens but not for all the seed that may be part of a thesis or other study that results in a refereed publication. Do they have thoughts about how the University might preserve these physical specimens so that other researchers could have access to them in the future for their research? It is a challenge they are still figuring out, Mr. Bantz said; it is a big question and several people are looking at it. Dr. Lawrenz said that there are various forms of repositories that they have looked at but there is no resolution on the question.

Professor Gini thanked Mr. Bantz and Ms. Lougee for joining the meeting and said the Committee will return to the topic later in the year.

2. Change in Board of Regents Policy Commercialization of Intellectual Property Rights (Student Intellectual Property)

Professor Gini now welcomed Mr. Schrankler from the Office for Technology Commercialization to propose an amendment to the Regents' policy dealing with commercialization of intellectual property [IP] having to do with students.

Mr. Schrankler thanked the Committee for the opportunity to present the proposal and commented that his office tries to be progressive in what it does. Under current policy, since 2007, "The University shall be the sole owner of [IP] . . . created by students or post-doctoral or other fellows in the course of their academic duties." Before 2007 the policy provided that IP created solely for the purpose of completing a course requirement was owned by the creator—that is, the student. In the cases since 2007, the University has in every case given the rights back to the student.

Mr. Schrankler identified issues with the current policy.

1. Our basic agreement with students is to provide an education, for which they pay tuition
Experiential programs and courses offer real-world problem-solving opportunities for students
-- Students should own/control the results of their educational efforts, including any IP generated
-- For the U to reach in and claim ownership of coursework IP changes this fundamental relationship

2. Companies contribute real-world problems and projects for experiential courses and understandably value the solutions

-- Companies want to work with students who they may someday hire, and also expect to own IP generated

-- Faculty are protective of relationships with companies providing projects, and want the companies to have access to the IP without having to license it from the U.

Faculty members need companies for some of their courses and if one looks at why companies want to work with the University, IP is at the bottom of the list—but it can become the most contentious issue. In the case of #2, Mr. Schrankler said, companies will require that students to sign a form waiving their intellectual property rights, which is why the University took ownership of the rights in 2007—to better protect students. The University wants to be sure that students have a choice; if they want to work on a project with Company A, they must waive their IP rights, or they can work on a different project and retain ownership.

Professor Vaughan asked if the University would claim ownership in the intellectual property if the "different project" were from the University. Mr. Schrankler said the University would not, but that there are caveats: if it is part of sponsored activity, the University must retain ownership, or if the student is a graduate student employee of the University, the policy provides that the IP is retained by the University.

Mr. Schrankler said he is recommending a policy change:

Exclude IP created by undergraduate or graduate students during course work taken for credit:

-- As long as the resources used were routinely made available to all students in the course;

-- The IP was not based upon pre-existing University-owned IP nor is a University employee or outside individual a co-inventor;

-- The class or project was not supported by a third party or corporation or government grant or contract.

He provided the Committee with the wording change proposed for the Regents' policy and a proposed timeline. He said they will look for ways to help students without requiring the reassign IP rights back to the University. They want to offer advice, although can't let the assistance being provided get out of hand.

Professor Kyba asked if companies work with classes for the good of the company or in order to engage students. Mostly as a matter of community good, Mr. Schrankler said, but small companies do want to retain IP. If a company pays for a student's tuition, however, it would have arrangements with the student about IP from a course. As for graduate student employees, Bayh-Dole applies to them just as it does to other University faculty and staff.

What about a TA who invented something that had nothing to do with any class and he or she did it on his or her own time, Professor Gini asked? Mr. Schrankler said that technically they are University employees, but his office tries to be reasonable. One issue is the extent to which University resources are used.

Professor Waldfoegel asked if Mr. Schrankler's office plans to monitor the new policy to see if it is successful. Not yet, however, if they win the NSF iCorp grant then it will come with a set of metrics. They also have a donor willing to help train entrepreneurs who would help. There will be a set of metrics to monitor how things go.

Committee members asked a number of questions about the proposed policy. Professor Gini suggested reviewing the definition of "course requirement." Mr. Habchi asked about the University's interest in joint IP ownership, especially for a student on scholarship who is paying nothing, and about how "substantial" University resources is defined; what about 40% of the cost? On the latter, Mr. Schrankler said that 40% would be substantial but one question is whether the IP came from a course or from research work, such as a project in a class, and he clarified that a student would be covered by the policy irrespective of scholarship status.

Professor Gini asked about a TA who takes a course and invents something. That is in a gray area, Mr. Schrankler said, and the University would probably own the IP but would waive it back to the student and help the student with it.

Professor Kyba asked how many cases they deal with. Mr. Schrankler said 20-30 cases per year with undergraduates. They are involved with many cases where they waive the rights to the students and then the students waive them to a company. Do students know that if they invent something, it is University property, Professor Gini asked? Most do, Mr. Schrankler said, it helps them because it can avoid trouble for the student. They receive hundreds of questions from students each year, which they answer.

The Committee voted unanimously to approve the proposed changes. Professor Gini said they will be forwarded to the Faculty Consultative Committee for review and then to the Faculty Senate for action. She thanked Mr. Schrankler for joining the meeting.

3. Change in Board of Regents Policy *Openness in Research*

Associate Vice President Lawrenz distributed materials to the Committee and explained small changes being proposed to the Regents' policy governing secrecy in research. She said that this policy came up for review as part of the regular five-year review process; they are proposing no significant changes. She explained how the policy works if an investigator proposes research with restrictions on it (the proposal goes to a standing subcommittee of this Committee, which reviews the proposed restrictions and makes a recommendation to this Committee, which in turn makes a recommendation to the Vice President for Research).

What about a senior research project, Professor Orf inquired? That would likely not be proprietary (which can have restrictions and for which there are standard procedures) or other restricted research (which typically comes from the Department of Defense). The restrictions usually involve who can work on the research and who can see it, Professor Gini said. Dr. Lawrenz agreed and said that in general the University does not do restricted research. She said she did not believe research subject to export controls would fall under this policy; Sponsored Projects Administration and the Office of the General Counsel make the decision about export controls; those projects are not usually as far along the spectrum as projects with restrictive clauses in them.

Professor Gini asked a few additional questions about the policy, which Dr. Lawrenz answered, and the Committee then voted to endorse the changes.

Professor Gini thanked Dr. Lawrenz for bringing the changes to the Committee and adjourned the meeting at 3:30.

-- Gary Engstrand

University of Minnesota